THE LIABILITY OF AIRCRAFT MANUFACTURERS:

A STUDY OF THE PRESENT SYSTEM

AND

A PROPOSAL FOR A NEW APPROACH

by

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A thesis submitted to the Faculty of Graduate Studies and Research, McGill University, in partial fulfillment of the requirements for the degree of Doctor of Civil Law.

Institute of Air and Space Law,
McGill University
Montreal, Canada

September, 1980

DEDICATION

This thesis is dedicated to my mother Nuwayer Khouri, UmHani, and to the memory of my father Helal Khouri, AbuHani. Through their sacrifice, patience and love my education extended beyond the elementary school of my home village Ajloun, Jordan.

ABSTRACT

The expanded scope of the initial and continued responsibility resulting from defective products, made by manufacturers of aircraft and component parts thereof, is discussed. Product liability law which has evolved in most of the industrialized countries, especially in the USA, has placed manufacturers' responsibility under stringent standards and rules thereby forcing aircraft manufacturers to assume new roles in aviation litigation. The courts transformed traditional principles of fault and negligence into strict liability and elaborated on it.

Because airplanes fly over several jurisdictions in a short time, an accident caused by a defective product can potentially result in difficult and complex conflicts of law questions. Available and potential solutions to these questions are explored. Finally, the imbalance in the liability distribution created by the Warsaw Convention, made more difficult by product liability law, is pointed out. A system of compensation, financed by a special aviation risk fund arrangement shared by the different segments of the industry, is proposed.

ABSTRAIT

Le domaine de la responsabilité initiale et subséquente des fabricants d'avions et de leurs composants est étudié ici. Le droit de la responsabilité civile du fabricant a évolué dans la plupart des pays industrialisés, particulièrement aux Etats-Unis; ses exigences poussent désormais les producteurs d'avions à assumer de nouveaux rôles dans les litiges impliquant les transporteurs aériens. Les tribunaux ont transformé les principes traditionnels de "faute" et de "négligence" en responsabilité sans faute et les ont développés.

En raison du fait que les avions traversent plusieurs juridictions en un court laps de temps, un accident causé par un produit défectueux peut créer des questions de conflits de loi difficiles et complexes. Le déséquilibre dans la répartition de la responsabilité, créé par la Convention de Varsovie et aggravé par le droit de la responsabilité civile du fabricant, est souligné. Un système de compensation alimenté par un arrangement de fonds spécial pour risque encouru, partagé par les différents segments de l'industrie, est proposé.

PREFACE

The last few decades witnessed a revolution in the art and technology of building aircraft. Aircraft manufacturers made remarkable achievements in building speedy, comfortable, big and reliable airplanes. However, progress in other fields did not lag behind. Radical changes of legal standards and rules which deal with manufacturers' responsibility have taken place. This is reflected in the development and proliferation of the product liability law.

Ten years ago Mr. Wallace E. Maloney, then Director of Aviation Committee, Federal Bar Association, wrote his article in the Journal of Air Law and Commerce about the trends in the aviation product liability law.* In his conclusion he provided the following statement.

> Although it may not seem so, aircraft manufacturers have rarely been a target defendant in aviation crash litigations. However, their day is at hand.

In view of the nature and the developments of aviation litigation during the last decade one wonders if in 1980 the day of the aircraft manufacturer has indeed arrived or even passed already.

The aircraft is a magnificent piece of technology which is a product of a long process of human efforts. It's essential role in our life does not need explanation. Today's generations and those of the future have an interest in its

*36 J. Air L. (1970) 514, 547.

preservation and development. As aviation technology advances towards an overall goal of perfection, errors are bound to happen. Unfortunately, these errors are, in some instances, costly in terms of both life and property. Victims of this process are of course entitled to secure, fair and adequate compensation. The ideal policy for pursuing this process is one which would achieve a balance among all these interests.

* * *

It is customary to indicate the elements in the preface of a thesis, which in the author's opinion contribute to the original knowledge. In my opinion, besides providing a comprehensive study and analysis of the legal ramifications of aircraft manufacturers' liability, a subject which is of significant contemporary importance in the field of aviation litigation, this thesis contributes two particular elements. First, it points out a serious deficiency in the present legal system of the distribution of financial and economic losses which result from an air disaster. This situation is caused by a disequilibrium originally created by the Warsaw Convention limitation, but more recently worsened by the proliferation of product liability law, especially in the United States, where major aviation litigation takes place. Second, this thesis prescribes a remedy to the above mentioned situation. It proposes a solution which is based on a new and radical approach; establishing a compensation system for the victims of an air disaster instead of the present litigation system. This compensation system is to

be financed by a special aviation risk fund administered by a scheme of regional arrangements within an international framework.

* * *

This thesis would not have been possible without the generous assistance of several people. They extended resourceful help to me from which I have drawn very often. In particular, I am indebted to my able supervising Professor Martin Bradley. His advice, suggestions and criticisms have been most valuable to this work. Also, I must acknowledge the generous efforts of Professor Peter Haanappel who read the transcript and provided valuable comments on it. To both Professors Bradley and Haanappel I would like to express my sincere thanks.

I would like to recognize with appreciation the editorial and typing assistance I received from Miss Tracy Harris and Mrs. Michelle Aglio. Nor can I overlook the kind assistance and cooperation I received from the staff of the Law Library of McGill University and also the staff of the Law Library of George Washington University.

A final word of appreciation is certainly due to my wife Gertrud. She patiently assumed some difficult responsibilities in order to enable me to pursue this work that I deeply cherish.

G.H.K.

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INTRODUCTION

One of the most critical areas of concern in the contemporary aviation litigation is the area of aircraft manufacturer's liability presented and contained in the field of products liability. During the last three decades, this field of law has undergone some drastic changes with far-reaching impacts. These have mainly occurred in the United States where the overwhelming majority of aviation litigation usually takes place. Product liability law has made significant changes and added new dimensions, trends and dynamics to the field of aviation litigation. The present system of aviation litigation and its conduct can no longer ignore the aircraft manufacturer and his essential role as a defendant upon whom part or all liability may be finally settled. It is in view of these developments that this study about aircraft manufacturers liability has been initiated and pursued.

Product liability in aviation is only one aspect of the law as it relates to technology. Once technology moves into more sophistication and grows into more complexity, legal doctrines, concepts and methodologies usually move to accomodate that change. The growth and development of products liability law in the field of aviation seems but a natural legal process which has been created by the advance of aviation technology. During the last three decades

Substantial changes and progress have been made in this field. These changes range from the introduction of the jet airplane, the wide-body jumboes to the Anglo-French Supersonic Concorde. During this period technical advances in the engine designs and navigation facilities have revolutionized commercial air transport. The airplane grew larger, faster and more sophisticated.

This remarkable advance in aircraft technology has been paralleled, on the other hand, by the growth, the broadening and the increase in the volume of aviation litigation. The wide scope of this litigation has spread to the various segments of aviation industry. In the early history of aviation it was rare to find anyone named as a defendant other than the airline which operated the aircraft which was involved in the accident. A typical aircraft crash of that era would involve a DC-3 or a DC-4 when a pilot of that aircraft lost his flight path or when weather conditions caused a pilot to fly into a mountain. Manufacturing defects were hard to pinpoint and harder to prove as a cause of action. The whole area of manufacturing defects and the consequent liability thereof did not seem to have received attention. As aviation became complex the interrelationship and interdependency between the different segments of the aviation industry increased tremendously. The type of accidents which occur at present, most likely, take place after a chain of events in which more than one segment of the industry plays a role. On the other hand, in almost any crash the wreckage of the aircraft usually disintegrates into thousands if not

hundreds of thousands of pieces and it is extremely difficult if not impossible, in certain situations, to pin down the cause of the accident. Therefore, the aircraft manufacturer is usually named as a defendant or joined as a third party in almost any litigation which may follow any significant accident.

The first case on record in which the court found an aircraft manufacturer negligent and awarded damages to a passenger is Maynard v. Stinson Aircraft Corporation, which was decided by a Michigan Court in 1937. Aircraft manufacturers liability claims were first originated in negligence. The Maynard decision followed basically the McPherson v. Buick rule which formulated the genesis of the legal philosophy of products liability in 1916. During the 1950s and 1960s claims against aircraft manufacturers increased substantially. Liability of aircraft manufacturers was expanded and broadened with the development of warranty law and more important with the appearance of the strict liability doctrine on the American judicial scene. At present the arsenal of product liability law and its different theories and tactics are but an integral part of the aviation litigation. Aircraft manufacturers are brought into litigation in almost any significant aviation accident.

The Warsaw Convention of 1929 and its sequels provide schemes of limited liability in favor of air carriers for international carriage of passengers and luggage. The Warsaw limited liability system does not cover any other segment of the aviation industry such as the manufacturers. The

Convention was adopted about three decades before the appearance and the development of the strict liability doctrine, and its subsequent proliferation in product liability litigation. Under these contemporary conditions it is normal that the pressures of litigation be directed to aircraft manufacturers. The manufacturer's exposure to an unlimited liability is of grave consequences in view of the high stakes of huge investments and the big and multiple damage awards that could be involved in a major aviation accident.

The subject of aircraft manufacturer's liability has received attention from students of the Institute of Air and Space Law, McGill University, at an early date. Several students had researched this topic many years prior to the Institute's initiation of a separate course of study in 1980 to deal with this subject.

The purpose of this study is to examine and evaluate the present legal system under which aircraft manufacturing liability is determined. In order to achieve this, this study will first investigate the status of the aircraft manufacturing industry and the governmental regulatory system under which it operates. This will be followed by a brief survey of the substantive law relating to manufacturers liability in general and the trends of its development under both national and international levels. This study will then proceed to examine the different legal doctrines and bases upon which product liability claims are predicated in actions against aircraft manufacturers. Since

the overwhelming majority of aviation litigation has taken place in the United States mainly American court decisions will be cited or briefed. Other relevant issues related to the present system of aircraft manufacturer's liability and its characteristics will also be explored. As a result of the research in this area the writer will propose a solution to deal with the aircraft manufacturers liability problem in the final remarks of this study. This solution aims at integrating aircraft manufacturers liability in a comprehensive liability system in which the different segments of the aviation industry may be included. It is to be established on a basic new premise; compensation and not litigation is a better course of action to deal with the problems of an air disaster.

The author acknowledges the complexity of this subject as to both its legal and technical aspects. This effort is a student enterprise aimed at learning. However, it is hoped that this study will contribute to the advancement of the understanding and the solution of the present phenomenon of products liability as it relates to modern aviation.

CHAPTER ONE

AIRCRAFT TECHNOLOGY AND INDUSTRY

A. Development of Aircraft Technology

In its phenomenal technological development, the airplane is probably unmatched by any other machine or instrument ever invented or utilized by man. In a comparatively short time the airplane emerged from a primitive flying instrument made of wood and cloth to one of the most sophisticated and complex machines. In the process of its development, human ingenuity from many countries and backgrounds have contributed to its innovation.[1] At present the airplane manufacturing and maintenance process, its operation, navigational aids and airport facilities incorporate complex systems run by highly skilled and competent personnel.

The turning point in the technology which produced the powered airplane and opened the era of aviation was finally achieved by Wilbur and Orville Wright on December 17, 1903. Orville and Wilbur Wright the sons of a United Bretheren Bishop lived in Dayton, Ohio. They owned a bicycle shop and progressed from the bicycle business to pursuing experiments in flying.[2] The Wright brothers first familiarized themselves with the writings and the results of the experiments achieved by those who preceeded them in this field. Very soon they discovered that the vital problem - that of how to control

the airplane - had to be solved by mechnaical means. The Wright brothers invented a control system and after several attempts at Kitty Hawk in North Carolina they achieved a controlled powered flight.[3] This technical breakthrough provoked a great deal of interest in aviation and their successful flight achievement provoked a great deal of interest in this field. Aeronautical research laboratories, institutes and associations were soon established in many countries.[4] Along with the Wright brothers other aviators and aircraft builders appeared on the scene and played also significant roles in the art of flying and its technology. Among those pioneers were Glenn Curtiss and Glenn L. Martin.[5] Meanwhile in Europe the art of flying was advanced by aviators such as Alberto Santos-Dumont, Bleriot, Voisins, Verdon Roe, de Havilland, Sikorsky, Fokker and Zepplin. Bleriot flew the English Channel in 1909. Air races held in both the United States and in Europe played a significant role in encouraging both the art of flying and also in building and manufacturing of faster airplanes.

The next step which followed the discovery of powered and controlled flight was the establishment of the aircraft manufacturing industries. These industries were originally founded by the pioneering aviators such as the Wright brothers and Glen Curtiss who manufactured aircraft and sold them. The first reported aircraft sale contract was made on February 10, 1908 between the Wright brothers and the United States Army. A photo-copy of that contract is produced on the next page.[6]

Signal Corps, United States Army.

These Articles of Agreement entered into this ----tenth---- day of February--, nineteen hundred and-eight--, between ----Chas. S. Wallace----, Captain----------, Signal Corps, United States Army, of the first part, and

Wilbur and Orville Wright, trading as Wright Brothers, of 1127 West Third Street, Dayton,

in the county of--------Montgomery----------, State of------Ohio----------, of the second part, WITNESSETH, that in conformity with copy of the advertisement, specifications, and proposal hereunto attached, and which, in so far as they relate to this contract, form a part of it, the said ----------Chas. S. Wallace, Captain,---------- Signal Corps, United States Army, for and in behalf of the United States of America, and the said ----------Wright Brothers---------- (hereinafter designated as the contractor) do covenant and agree, to and with each other, as follows, viz:

ARTICLE I. That the said contractor shall manufacture for and deliver to the United States of America,

One (1) heavier-than-air flying machine, in accordance with Signal Corps Specification No. 486, dated December 23, 1907.

ART. II. That the deliveries of the supplies and materials herein contracted for shall be made in the manner, numbers, or quantities, and for each number or quantity, on or before the date specified therefor, as follows, viz:

That complete delivery shall be made on or before August 28, 1908.

IN WITNESS WHEREOF the parties aforesaid have hereunto placed their hands the date first hereinbefore written.

WITNESSES:

Colin J. Mullaney as to

Albert Sammers as to

E. C. Taylor as to

1st Lt. Hoffman as to

Captain Signal Corps, U. S. Army.

Wright Brothers
by Orville Wright

APPROVED: FEB 28 1908 , 190

Brigadier General,
Chief Signal Officer of the Army.

The first reported aircraft sale contract. The sale was concluded between the Wright Brothers and the U.S. Army on February 10, 1908. (Source: Loening G., Takeoff Into Greatness (1968).

As the world was approaching World War I the airplane which by that time had advanced a good deal became an attractive instrument of warfare for military departments. In the era which preceded the war the shape and the structure of the airplane had emerged in the form of the monoplane or the biplane; the chief stability problems had been resolved, and the engine had become more reliable and allowed for higher speeds. With the outbreak of the war in August, 1914, the armed forces of all the great powers added the airplane to their military arsenals by forming aeronautical offshoots of their armies and navies. During the war the aircraft was first used for aerial scout and observation from which enemy troop movements were watched. The airplane, however, was soon used for bombing and aerial raids.[7] The war expedited mass aircraft production of military designed planes in both Europe and the United States. The airplane, which was about sixteen years old when the war was over, has then accumulated into its structure and mechanism a good deal of technology; certain features of the airplane were developed such as the wings, the metal body, and most important the growth in the efficiency and performance of the aircraft engines.[8]

The period between the two wars witnessed major developments in aircraft industry. It was within this time that the revolution in the design and construction of the airplane had occurred. It was within this time period that air transport services began and organized airlines were established. The first regular scheduled daily air service

for passengers was initiated in Germany between the cities of Berlin, Leipzig and Hamburg on February 22, 1919. The French, British and the Americans began similar operations soon afterwards. The first international daily scheduled service was operated between London and Paris in August, 1919. Surprisingly, the development of air transport in the United States, especially in the ten years which followed the war, lagged behind Europe. From 1918 to 1927, the most important American operations were merely subsidized air mail services run by the U.S. Post Office. By 1929, however, the air transport service in the United States carried more passengers than those of any other country. One factor contributed to this boom was the enthusiasm and interest generated by Lindbergh's successful flight across the Atlantic in 1927.

The first national "flag carriers" were established at this time, KLM in Holland (1920) and SABENA in Belgium (1923) being among the earliest. Britain had several organized airlines which in 1924 merged to form the airline system which eventually became BOAC. In Germany Lufthansa grew out of the amalgamation of earlier companies in 1926. Air France was also formed out of several existing companies in France in 1933.[9]

The aircraft used after the war for passenger transportation were mostly adaptations of military types. Soon, however, civil aircraft appeared in the early 1930's. This period witnessed major improvement made to the aircraft engine,

cockpit instruments and most important the design of the aircraft. In the United States and Europe companies like the Wright Aeronautical Corporation, Pratt & Whitney and the Rolls-Royce in Britain produced reliable engines such as "Whirlwind" the "Wasp" and the "Rolls-Royce", which laid the foundation for the production of the commercial airplanes. By the mid-1930's several American manufacturers had produced all-metal airplanes which incorporated retractable landing gear, improved wing sections, flaps, air-cooled radial engines and variable-pitch propellers. This American revolution in designing and building airplanes started with the introduction of the Boeing 247, the Electra and Douglas DC-1, DC-2, and DC-3 into service. The DC-3 which is perhaps, the most famous airplane in man's history was introduced into service in 1936. The airplane, which was powered by a twin-Wasps had a range of 500 miles and a capacity of 21 passengers.[10]

Transcontinental routes between the United States and Europe and the need for fast and non-stop air-transport service enhanced the building of bigger airplanes with longer range. The DC-3,which was the main airplane,needed several stops to cross the United States from one coast to the other. It was evident that the next step was production of four-engine airplanes which would be capable of making a non-stop flight across the United States and the Atlantic. The major three aircraft manufacturing corporations Boeing, Douglas and Lockeed responded to this need and introduced to the market three airplanes: Boeing 307, DC-4 and the

Constellation. Slightly different in size, capacity, speed and range, these airplanes had the characteristics for meeting the need of air transportation during and in the period which followed the Second World War.[11]

The major technological development that occurred in air transportation after the Second War was the introduction of the jet airplane. The jet engine was originally developed before the war by A. Griffith and F. Whittle in Britain and by H. Ohain and Mueller in Germany. The first operational jet airplanes were fighters. Jet engines then gradually became predominent in both military and commercial airplanes.[12] The commercial jet airplanes first appeared in Britain in the early 1950's with the introduction of the "Comet". For a period of time the British aircraft industry seemed to take the lead. American aircraft manufacturers lagged behind those of Britain in jet transport development, much as it had in the race for the first jet engine. However, the British quickly lost the lead. Technical deficiencies in the Comet caused two disastrous crashes which finally led to its withdrawal after two years in service.[13] The "Comet's" accidents and it's subsequent withdrawal from service seems to have given the American aircraft manufacturers a chance to catch up. Boeing produced the Boeing 707 model and Douglas produced the DC-8 a similar looking rival. These two models soon dominated the jetliner market. The efficient and economic utilization of these airplanes during the late 1950's and the 1960's induced the American aircraft manufacturers to build wide-body, large capacity airplanes.[14]

Boeing taking the lead put into the market the gigantic Boeing 747 which was first flown on scheduled operations in January, 1970. The other American aircraft manufacturers following the traditional competitive pattern followed with other wide-body jet models but on a scale smaller than the Boeing 747. McDonnell-Douglas flew the 380-passenger DC-10 trijet in August, 1970 and Lockheed followed with its own slightly smaller widebody trijet, the L-1011 in November, 1970. Meanwhile, the European aircraft manufacturers developed their own joint venture. Through a European consortium, they produced their own equivalent, the twin-engine Airbus A-300.

The jet airliner is not the end product of the aircraft manufacturers technology. The supersonic transport (S.S.T.) has been in service for several years. The Concorde with its tremendous cruise speed reduces the seven-hour London-New York flight to three and a half hours.[15]

The airplane which was flown by the Wright brothers in 1903 with a simple and primitive structure has become, during its 77 years of technological development, a very sophisticated and complex product. At present, thousands, if not millions, of skilled work hours, thousands of parts, hundreds of contractors and sub-contractors are involved in the process of making a single airplane. The following charts show the trends of growth and complexity of aircraft technology.[16]

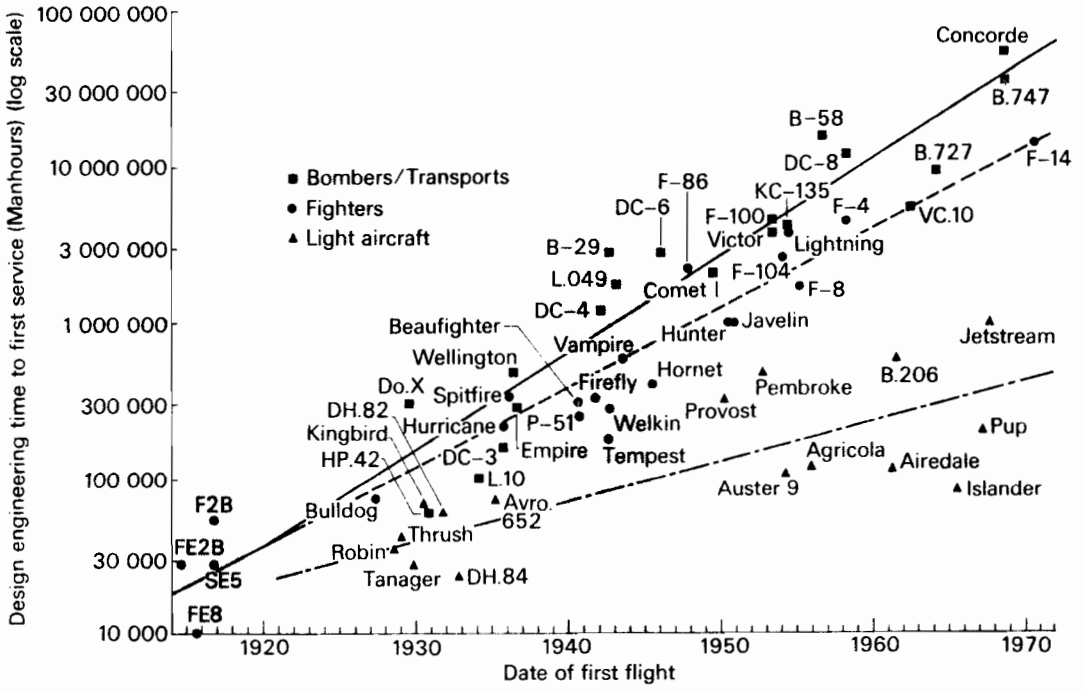


Figure 1: Aircraft trends in development effort.*

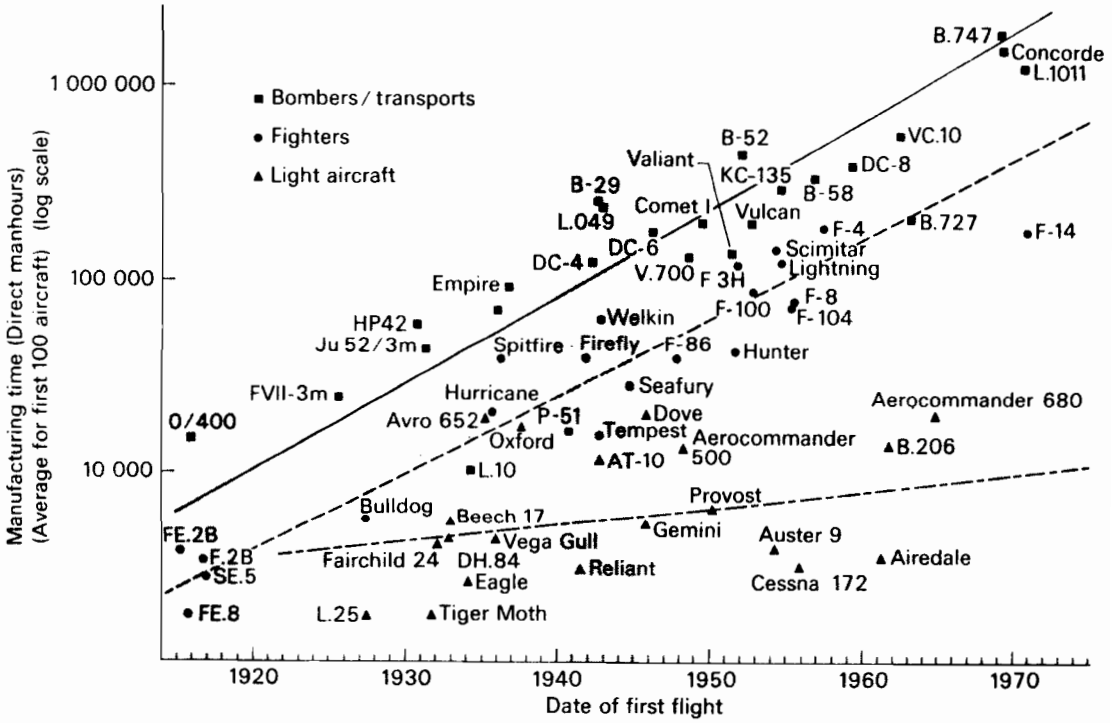


Figure 2: Aircraft trends in manufacturing effort.*

*(Source: Williams. A History of Technology Oxford 1978).

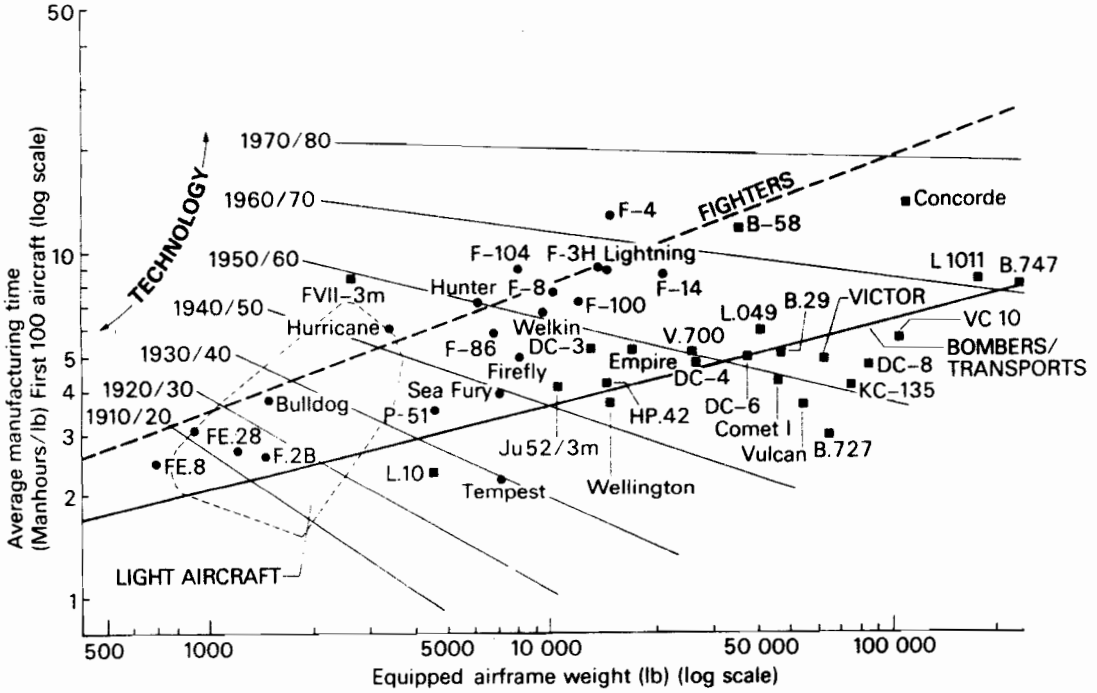


Figure 3: Aircraft manufacturing complexity.*

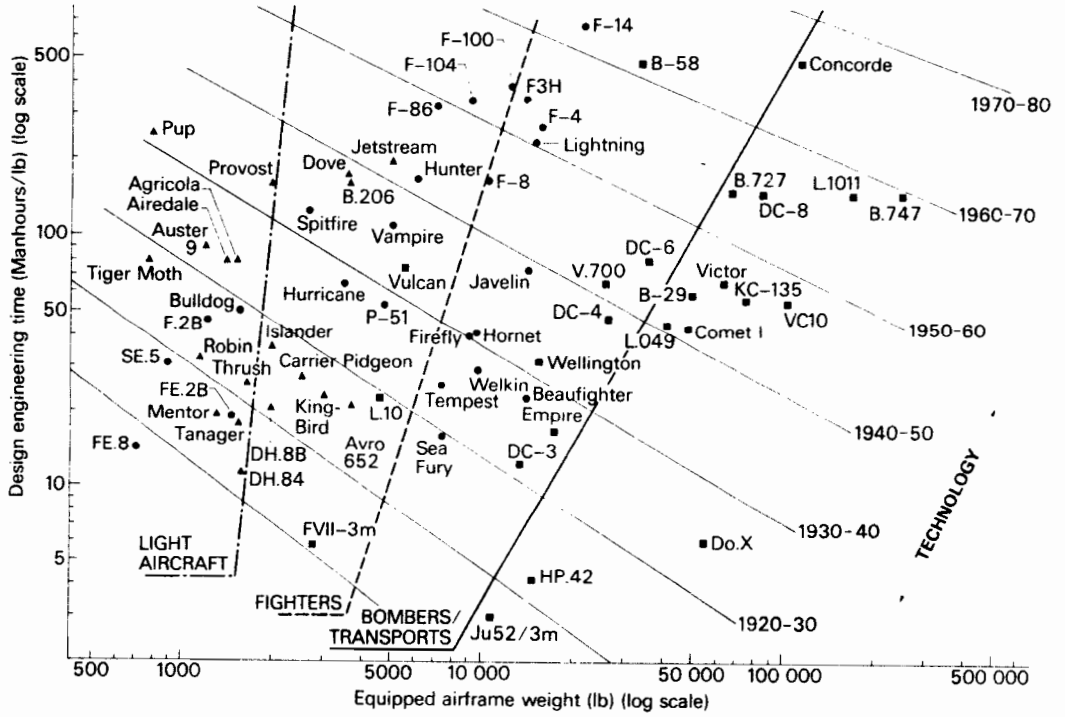


Figure 4: Aircraft development complexity.*

*(Source: Williams: A History of Technology, Oxford 1978).

B. Prime Aircraft Manufacturers and Their Products of Commercial Aircraft

Finished commercial aircraft are manufactured in many countries of the industrial world. The majority of aircraft in commercial service is, however, produced by a few American manufacturers. Other manufacturers which produce aircraft but to a lesser degree, are located in West Europe and the Soviet Union.[17] The following is a brief overview of the major aircraft manufacturers from different countries and their respective products.

The leading three aircraft manufacturers in the United States are Boeing, McDonnell Douglas and Lockheed. These three manufacturers are responsible for the development and the production of the majority of aircraft in commercial service in both the United States and abroad.[18] Boeing based in Seattle, Washington, manufactures at present the Boeing 727 series, Boeing 737 series, Boeing 747 series and Boeing 767 series. McDonnell Douglas presently produces the DC-9 series and also the DC-10 series. The corporation has its headquarters and plant in Long Beach, California. Lockheed with its two branches sited in Burbank, California and Marietta, Georgia, produces the TriStar L-1011 and the L-100 series. Outside the United States, in the North America continent, two Canadian aircraft manufacturers, de Havilland Canada located in Downview, Ontario and Canadair of Montreal, Quebec, produce small-bodied airplanes. Most important are the Dash 7, the DHC-6 and the Challenger.[19] Besides these

aircraft manufacturers in North America, EMBRAER (Empresa Brasileira de Aeronautica) of Brazil makes the Bandierante.

In West Europe several types of commercial aircraft are produced by European manufacturers. Among the most important are the British Aerospace, Aerospatiale/BAC, Airbus Industries, Fokker Aircraft v. B. and Shorts Brothers. The British Aerospace produces the BAC-111 series, the HS-748 series and the DH-125 series. The Aerospatiale/BAC manufactures the Concorde. The Airbus Industries, a European enterprise, is seated in Toulouse, France. The Company produces the A300 series. Fokker seated in the Netherlands, manufactures the F-27 series, the F-28 series.[20] Shorts Brothers based in Belfast, Northern Ireland manufactures the SD 330 series.

Several aircraft manufacturers in the Soviet Union produce different types of airplanes.[21] Antonov, Tupolev, Ilyushin and Yakovlev are among the major manufacturers.[22]

C. Government Regulation of the Aircraft Manufacturing Industry

The process of aircraft manufacturing is closely regulated by the government. The extent of regulation in this type of industry perhaps exceeds any other industry. From the initial design drawing through all its production phases and even after the aircraft is in actual service, the manufacturer is under a duty to comply with government regulations and to follow prescribed standards.[23] Promulgation of such regulations is generally aimed at promoting aviation safety. This is done by prescribing certain schemes

of mandatory standards and rules to be followed by the industry. Accordingly aircraft manufacturers are compelled to operate in a close and coordinated relationship with government authorities in charge of aviation. Compliance to government regulation is made in the aircraft industry through the licensing or the certification process. Aircraft manufacturers cannot sell their product in the market except when governmental standards are satisfied.

In the United States, where the majority of aircraft are made, manufacturing of aircraft in all its phases is subject to detailed regulations.[24] The Federal Aviation Act of 1958[25] provides for the development of a comprehensive regulatory system to promote aviation safety. The Act empowers the Administrator of the Federal Aviation Administration (FAA) to regulate the aircraft industry by prescribing mandatory minimum standards. Section 1421 of the Act provides:

> (a) The Administrator is empowered and it shall be his duty to promote safety of flight of civil aircraft in air commerce by prescribing and revising from time to time:
>
> (1) Such minimum standards governing the design, materials, workmanship, construction, and performance of aircraft, aircraft engines, and propellers as may be required in the interest of safety;
> (2) Such minimum standards governing appliances as may be required in the interest of safety;
> (3) Reasonable rules and regulations and minimum standards governing, in the interest of safety, (a) the inspection, servicing, and overhaul of aircraft, aircraft engines, propellers, and appliances; (b) the equipment and facilities for such inspection, servicing, and overhaul; and (c) in the discretion of the Administrator, the periods for, and the manner in which such inspection, servicing, and overhaul shall be made, including provision

> for examinations and reports by properly qualified private persons whose examinations or reports the Administrator may accept in lieu of those made by its officers and employees.[26]

Under this general safety power, regulations dealing with the aircraft manufacturing process, have been established and are revised whenever necessary.[27] The process of compliance with this regulatory system in regard to manufacturing a finished aircraft is usually achieved by following specific certification measures consisting of a three-tiered process; "Type" Certification, Production Certification and the Airworthiness Certification. This certification process is backed and followed up by Airworthiness Directives.

1. The "Type" Certification

The Federal Aviation Administration involvement in the manufacturing process begins at the initial stages. A manufacturer intending to produce a new finished aircraft must apply for a "Type" Certificate. This requires the submission of the design drawing, tests, reports and computations necessary to show that the product which is intended to be produced will meet the current airworthiness and noise requirements.[28] As to the design of the product to be certified, the application must contain:[29] (a) the drawing and specifications necessary to show the configuration of the product concerned and its design features; (b) information on dimensions, materials and processes necessary to define the structural strength of the product; and (c) any other data necessary to allow, by comparison, the determination

of the airworthiness and noise characteristics of later products of the same type.

Upon evaluation of the type design and the completion of tests and inspections, and upon finding that such an intended aircraft meets the required standards and has no features or characteristics that makes it unsafe for the category in which certification is sought, a Type Certificate is granted.[30] Such a certificate is valid until suspended, revoked or a termination date is otherwise established.[31] Introduction of changes to the Type Certificate may be made by pursuing certain procedures.[32]

2. The Production Certification

The aircraft manufacturer may obtain a Production Certificate based on conformity with the articles produced to the "Type" certified during the initial stage.[33] The applicant must, however, show that he has established and has maintained a quality control system for any product for which he requests a production certificate, so that each article will meet the design provisions of the pertinent type certificate.[34] Details of quality control data requirements which a prime aircraft manufacturer has to provide are prescribed as follows:

> (a) Each applicant must submit, for approval, data describing the inspection and test procedures necessary to ensure that each article produced conforms to the type design and is in a condition for safe operation, including as applicable:
>
> (1) A statement describing assigned responsibilities and delegated authority of the quality control organization, together with a chart indicating the functional relationship of the

quality control organization to management and to other organizational components, and indicating the chain of authority and responsibility within the quality control organization;

(2) A description of inspection procedures for raw materials, purchased items, and parts and assemblies produced by subsidiary manufacturers, including methods used to ensure acceptable quality of parts and assemblies that cannot be completely inspected for conformity and quality when delivered to the prime manufacturer's plant;

(3) A description of the methods used for production inspection of individual parts and complete assemblies, including the identification of any special manufacturing processes involved, the means used to control the processes, the final test procedure for the complete product, and, in the case of aircraft, a copy of the manufacturer's production flight test procedures and checkoff list;

(4) An outline of the materials review system, including the procedure for recording review board decisions and disposing of rejected parts;

(5) An outline of a system for informing company inspectors of current changes in engineering drawings, specifications, and quality control procedures; and

(6) A list or chart showing the location and type of inspection stations.

(b) Each prime manufacturer shall make available to the Administrator information regarding all delegation of authority to subsidiary manufacturers to make major inspections of parts or assemblies for which the prime manufacturer is responsible.[35]

3. The Airworthiness Certification

Airworthiness certification is the last stage in this process and it involves issuance of an Airworthiness Certificate according to which an aircraft may be lawfully operated in air commerce. This certificate gives a recognition of the capability of the aircraft to perform the functions for which it was designed and assembled. An Airworthiness Certificate is issued when the Administrator of the FAA finds out that the aircraft conforms to the type certificate and after inspection and that the aircraft is

in condition for safe operation.[36] This process involves a systematic investigation of the applicant's compliance with all requirements and the establishment of favorable conclusive evidence regarding the characteristics of the aircraft. The actual procedures leading to the issuance of airworthiness is accomplished by the participation of highly qualified technical engineers and pilots who examine the data relating to the structure, components, power systems and operational capabilities of such an aircraft.[37]

4. The Airworthiness Directives

The above mentioned stages of certification are followed and augmented by other FAA orders and actions aiming at securing, maintaining and promoting aviation safety. Among these actions is the issuance of Airworthiness Directives. Whenever the FAA Administrator is made aware that "unsafe conditions exists in a product, or are likely to exist or develop, he may compel corrections, impose flight limitations, or prohibit the operation of an aircraft by means of an Airworthiness Directive."[38] These Airworthiness Directives are issued according to conditions and procedures prescribed in the Code of Federal Regulations. Violation of these Directives are made subject to different civil penalties including revocation or suspension of aircraft certificates.

An aircraft manufacturer is, therefore, under a complex dual system of obligation; one created by the administrative and regulative process and the other is created by the common rules of law.[39] The duties and

obligations of an aircraft manufacturer are enforced by civil penalties contained in the administrative regulations and also those of the common law. This last category is a subject which will be studied in detail in the following subsequent chapters.

FOOTNOTES
(Chapter One)

[1]For a detailed treatment of the subject of technological development of the airplane see P. Brooks, The Modern Airliner: Its Origins and Development, (1961), G. Loening, Takeoff Into Greatness, (1968), J. Rae, Climb to Greatness: The American Aircraft Industry 1920-1960, (1968), R. Miller and D. Sawers, The Technical Development of Modern Aviation, (1970), Gibbs and Brooks, Flight Through Ages (1974), R. Schlaifeer, and S. D. Heron, Development of Aircraft Engines and Fuels, (1950), G. Simson, The History of the American Aircraft Industry, (1968), H. DeLeeuw, From Flying Horse to Man on the Moon (1963).

[2]C. H. Gibbs-Smith, The Airplane: A Historical Survey of Its Origins and Development, (1960) at 6-35. See also F. C. Kelley, The Wright Brothers (1944).

[3]See F. C. Kelley, Orville Wright: How We Invented the Airplane (1953), at 18-57, See Gibbs-Smith, Supra, note 2 at 28-66.

[4]See D. Rolf, A. Dawydoff, W. Winter, W. Byshun and H. Clark, Airplanes of the World (1969) at 22-23.

[5]For discussion of the contribution made by Curtiss and Martin to early aviation see G. Loening, Takeoff Into Greatness (1968) at 29-47.

[6]Ibid., at 21.

[7]Ibid., at 1-9.

[8]See Gibbs-Smith, Supra,note 2 at 88-106.

[9]For deatiled treatment of the history of the major airlines see R. E. Davies, A History of the World's Airlines, (1964).

[10]For an overview of the development which took place between the two wars and the different types of airplanes produced in that period see E. M. Emme, Two Hundred Years of Flight in America: A Bicentennial Survey (1978) at 156-165.

[11]Ibid.

[12]For more discussion about the jet propulsion and its historical development see R. E. Hage, Jet Propulsion in Commercial Transportation (1948).

[13]For detailed history of the "Comet" production and its withdrawal from service see D.C. Dempster, The Tale of the Comet (1958) see also A. Reed, Britain Aircraft Industry (1973) at 31-69.

[14]See D. H. Robinson, Giants in the Sky (1973) see also Civil Aeronautics Board, Wide-Bodied Jet Aircraft Cost and Performance Report, U.S. Certificated Air Carriers, 1970-73, Vol. 16, (Washington, D.C., May 1974).

[15]For detailed description of the "Concorde" see N. Barfield, Aerospatiale/BAC Concorde, (1973).

[16]T. I. Williams, A History of Technology, (1978) Vol - II, at 831-833.

[17]For a detailed information and background about the different aircraft manufacturers around the world and description of specific products of each one see Commercial Aircraft of the World. Flight International, November 11, (1978) at 1742.

[18]See G. Simson, The History of the American Aircraft Industry (1968). See also Loening, Supra, note 5.

[19]See Supra, note 17.

[20]Ibid.

[21]For a detailed study about the development of aircraft technology and industry in the Soviet Union see H. Hooftman, Russian Aircraft (1963).

[22]See Supra, note 17.

[23]See for example the regulations dealing with manufacturing of aircraft and its certification in the United States. Code of Federal Regulations Title 14 Parts 1-59 revised as of January 1, 1977.

[24]Id.

[25]72 Stat. 731 as amended, 49 U.S.C. Sec. 1301 et seq. (1970 Supp. V. 1975).

[26]49 U.S.C. Sec. 1421 (a)(1970).

[27]See Title 14 Code of Federal Regulations.

[28]49 U.S.C. Sec. 1423(a)(1970); 14 Federal Regulations Code Part 21 Subpart B(1977).

[29]Title 14 Federal Regulations Code Part 21.31 (1977).

[30]Title 14 Federal Regulations Code Part 21.21 (1977).

[31]Title 14 Federal Regulations Code Part 21.51 (1977).

[32]Title 14 Federal Regulations Code Part 21.91 (1977).

[33]Title 14 Federal Regulations Code Part 21.131 (1977).

[34]Title 14 Federal Regulations Code Part 21.135 (1977).

[35]Title 14 Federal Regulations Code Part 21.143 (1977).

[36]See generally Title 14 Federal Regulations Code Part 21 Subpart H (1977).

[37]The required standards of airworthiness are generally contained in Title 14 Federal Regulations Code Part 21.31.

[38]J. R. Harrison and P. J. Kolczynski, Government Liability for Certification of Aircraft (1978) 44 J. Air L. 23, 26.

[39]See generally L. S. Carsey, Initial and Continuing Responsibilities of General Aviation Manufacturers, (1971) 37 J. Air L. 295.

CHAPTER TWO

THE LAW OF MANUFACTURER'S LIABILITY (PRODUCT LIABILITY): ITS DEVELOPMENT AND STATUS ON THE NATIONAL AND INTERNATIONAL LEVEL

A. General Remarks

The revolution of aircraft technology during the last three decades has been paralleled by another revolution in the law of product liability which has taken place in the United States and to a lesser extent in Europe.[1] The major aircraft manufacturers and aircraft parts contractors and subcontractors are located in the United States and thus have often been engaged in aviation product liability litigation. The product liability law and its modern development commencing in the United States with the famous Macpherson case[2] and resulting from the automobile age was soon extended to the aircraft age. The aircraft and/or its parts if defectively produced exposes the life of many people to grave danger both on board and on the ground. Therefore, the manufacturer is under a duty to produce a safe airplane. Under the present law of product liability an aircraft manufacturer, like any other manufacturer, is liable to the ultimate user or consumer for any damages or injuries caused by defective products.

Product liability law has undergone a tremendous

development which is manifested in the expansion of standards by which manufacturer's liability is determined. The present product liability system and its legal ramifications are certainly one of the phenomena of the field of law of our time. Product liability law includes a body of rules dealing with liability of manufacturers, suppliers and others involved in the production and distribution of products toward the ultimate consumers or users who suffer injury or damage as a result of defects in these products.[3]

In the face of advanced technology and the introduction into the market of highly complex products and goods accompanied by sophisticated methods of distribution and advertisement the law has intervened to protect the consumers and users of such products. In its reaction to this phenomenon the law has eventually recognized the helpless position of the consumers and the users and their inability to judge either the safety of complex products or the reliability of distant manufacturers.[4] As a result the old system of legal rules designed for face-to-face dealing among equals has been altered and modified, and in the process has given way to an evolved legal framework which corresponds and fits these new conditions of modern production, distribution and sales. Under the present system of liability there is a widespread tendency in many countries to impose strict liability upon manufacturers toward the ultimate user or consumer for any damages caused by their defective products.[5] This tendency has been generally justified on the contention that the manufacturer is the person in the chain of commercial

distribution best able to take effective steps to minimize the risk of damage that defective products may cause to consumers.[6] Also social justification is made by the contention that the burden of accidental injuries caused by defective products should be placed onto the manufacturer, because he is best able to pass on the losses to the general public. This is done by means of liability insurance, the expense of which is treated as part of the costs and eventually added to the price of the products.[7]

Development in product liability law has taken place in varied degrees in most of the industrial countries of the world. It has occurred in countries whose legal systems fall under the common law and also in countries whose legal systems fall under the civil law.[8] The development has been most far-reaching in the United States where a highly evolved body of case law culminated in the establishment and adoption of strict liability in torts.[9] Compared to the United States, the law of product liability in European countries is still lagging behind. Although the judicial development of the law in those countries has been noticeably in the direction of strict liability none of them has adopted the theory in the manner and extent adhered to by the American courts. France, Belgium and Luxembourg are on the progressive side in this regard. The courts in those countries have developed the legal situation by stretching the provisions of sales contained in the civil codes and have reached a degree of liability which probably amounts to that of strict liability.[10]

Where the civil code holds the vendor liable when he is in bad faith because he knew about the defect in the product, the courts presume that bad faith every time the vendor is a professional vendor or a manufacturer and thereby do not allow him to rebut this presumption. Thus, liability in that respect is strict. In the Netherlands and Denmark the development is manifested in the reversal of the burden of proof.[11] In Germany a remarkable trend for change has come about after the judicial breakthrough made by the Federal High Court in the "chicken vaccine" case and after the enactment of the Revised Pharmaceutical Law of 1976.[12] The law of product liability in the United Kingdom, the Soviet Union, Spain, Australia, Portugal, most of the British Commonwealth, Japan, Turkey, the Arab countries and Latin America, is generally less progressive. Product liability in those countries is still generally based on the traditional concepts of fault and contract with a strict adherence to the privity requirement when recourse is made of the last basis.[13]

Product liability law development was not limited to national levels. On the international level several international organizations have shown interest in the subject and consequently proposed uniform rules to control the divergence in product liability law and its development on the national levels. A body of international rules has already emerged on this subject. The following is a brief assessment of the product liability law and the trends of its development in the major industrial countries. Assessment provided by this survey, it is hoped will help clarify the present and

the potential ramifications of liability of the aircraft manufacturer for defective aviation products and the extent and manner in which such a liability is determined.

B. Development of Products Liability Law on the National Level

1. In Common Law Countries

(a) England

Product liability law in England does not constitute a coherent separate body of law. The present legal framework of product liability is rather a mixtrue of interrelated rules and concepts of both contract and torts.[14] Manufacturer's liability has never progressed to the strict liability system which is prevalent in the United States.

Liability Arising Out of Contract: Liability arising out of contract is mainly established in the provisions of the Sales Act of 1893[15] and its subsequent amendments, especially the Supply of Goods (Implied Terms) Act of 1973.[16] The Sale of Goods Act of 1893 codified the common law of sales as it stood at that time. The doctrines of freedom of contract and "caveat emptor" (Let the buyer beware) well-established in English law, found their way into the provisions of this Act. The Act therefore gave leverage to the parties to restrict or limit liabilities, rights or duties by express or implied agreement in the course of contractual dealings.[17] On the other hand, the Act provided for no implied warranty regarding quality or fitness of goods. In the absence of such statutory conditions it was possible for the sellers to "contract out" of any

warranty as to fitness or quality. Attempts by the courts to restrict the effects of clauses included in sales contracts were only partially successful.[18]

The rapid changes in manufacturing and technological methods, the marketing and distribution techniques and the accompanying advertising practices have created new circumstances and conditions of dealings for both sellers and buyers. Legal reform of the provisions of the Sales Act of 1893 became imperative especially to provide protection to buyers and consumers in the face of this new wave of technology.[19] The British Parliament accordingly, passed several amendments to the Sales Act, the most important being the Supply of Goods (Implied Terms) Act of 1973.[20] This Act makes void any clause that limits or excludes implied terms such as "merchantable quality" or "fitness to particular purpose."[21] A few years later the Supply of Goods (Implied Terms) Act of 1973 was followed by yet another important enactment known as the Unfair Contract Terms Act of 1977.[22] This later Act which went into force on February 1, 1978 goes a step further and prohibits the exclusion or restriction of liability by contract or notice for negligence when death or injury occurs.[23] The Sale of Goods Act as amended by the provisions of the Supply of Goods (Implied Terms) Act of 1973 contains the following important provisions:

> Section 14(2). Where the seller sells goods in the course of a business, there is an implied condition that the goods supplied under the contract are of merchantable quality, except that there is no such condition:

(a) as regards defects specifically drawn to the buyer's attention before the contract is made; or
(b) if the buyer examines the goods before the contract is made, as regards defects which that examination ought to reveal.

Section 14(3). Where the seller sells goods in the course of a business and the buyer, expressly or by implication, makes known to the seller any particular purpose for which the goods are being bought, there is an implied condition that the goods supplied under the contract are reasonably fit for that purpose, whether or not that is a purpose for which such goods are commonly supplied, except where the circumstances show that the buyer does not rely, or that it is unmeasurable for him to rely, on the seller's skill or judgment.[24]

It is important to mention, however, that the benefit of this approach of pursuing a product liability claim against a manufacturer in this contractual relationship is, in practice, limited. Because such a claim is mostly one for breach of contract, only parties in privity of contract with the manufacturer of the defective product involved may pursue that claim.[25] Usually most of the products do not reach the consumers in direct sales with the manufacturers but rather after a chain of transactions involving such groups as distributors, wholesalers, dealers and vendors.

Liability Arising Out of Negligence: Manufacturer's liability arising out of negligence for damages suffered by a third party is a new development in the common law of England.[26]

The ruling in the famous case of Winterbottom v. Wright[27] in 1842 in which a third party was denied relief against the supplier of the product, remained the standard rule for a long time. In that case it was held that one who supplied the coach to the plaintiff's employer with an

undertaking to keep it in repair was not liable to the coachman who was injured by reason of latent defect.[28]

Gradually, however, exceptions were made to this general rule especially in the area of inherently dangerous things. It was not until 1932 that the House of Lords by a narrow majority in Donoghue v. Stevenson[29] held a manufacturer liable to a third party for articles which were dangerous when negligently made. The plaintiff's alleged injury as a result of drinking a sealed bottle of ginger beer which contained the remains of a snail. The bottle was purchased by a friend of the plaintiff from a local store. The court awarded the plaintiff a compensation and stated that the manufacturer owed the plaintiff an obligation to take reasonable care in producing his products. Lord Atkin laid down the rule in the following terms:

> My Lords...a manufacturer of products, which he sells in such a form as to show that he intends them to reach the ultimate consumer in the form in which they left him with no reasonable possibility of intermediate examination, and with the knowledge that the absence of reasonable care in the preparation or putting up of the products will result in an injury to the consumer's life or property, owes a duty to the consumer to take reasonable care.[30]

This remarkable change in the law of manufacturer's liability in England reached by the ruling in the case of Donoghue v. Stevenson[31] in 1932, has probably been influenced by the development of product liability in the United States following the holdings in the famous decision of the New York Court of Appeals in MacPherson v. Buick Motor Co.,[32] in 1916.

Following the Donoghue decision, the rule that a

manufacturer may be held liable to a third party for products if negligently made became a well established principle in the law of England. This is evident in the ruling of several later cases. One of the most important cases is Grant v. Australian Knitting Mills Ltd.[33] In this case the court held that the defendants were liable to the ultimate purchaser of some pants which they had manufactured and which contained a chemical that gave the defendant a skin disease when he wore them. The defendant in this case argued that there was greater possibility of intermediate tampering with the good before they reached the user. He argued further, that this situation is not the same as the "sealed" bottle in the Donoughue case. The court, however, dismissed this argument by saying that the decision in that case did not depend on the bottle being sealed; the essential point in this regard was that the article should reach the consumer or user subject to the same defect as it had when it left the manufacturer.[34]

Since, however, product liability claims are founded on the basis of negligence, an injured party suing a manufacturer, has to undertake the difficult burden of proving negligence on the part of the manufacturer. Ingredients of negligence which must be proved have been summarized in the following elements: a) the defendant manufacturer owes a duty of care to the plaintiff, b) the breach of such a duty by proving that the defendant manufacturer was careless, and d) the casual connection and foreseeability of damage.[35]

This situation created by relying on rules of negligence

in product liability law and their lack of development (especially when compared to legal development in this field in the United States and in some European countries) was pointed out by the British Law Commission in 1977. That Commission called for a reform of this situation mainly by adopting a system of strict liability.[36]

(b) Australia

Development of product liability law in Australia has manifested itself in the form of a legislative action at both state and commonwealth levels.[37] Australia, like the United States and Canada, is a political federation with a central government and six states. Each of these states has its own government and enjoys a limited sovereignty. The central government "The Commonwealth" directly administers certain internal and external territories.

Apart from the recent legislation which will be discussed later, Australian common law of torts and contracts relating to product liability generally follows that of England. In the absence of contractual relationship a person suffering damages caused by a defective product may recover against the manufacturer if he can prove that the manufacturer was negligent.[38] The doctrine of res ipsa loquitur has been progressively utilized by Australian courts to aid plaintiffs in their suits against manufacturers yet standards of liability in Australia still fall significantly short of measuring up to strict liability. Product liability claims pursued on breach of the contractual relationship generally enjoy the benefit of the statutory

implied conditions of merchantable quality and fitness.[39] However, remedies available by this approach are complicated generally by the restriction and exclusion clauses which are usually inserted in sales contracts.[40] In addition, the effect of an action based on breach of contract is limited since only those who are in privity of contract with the manufacturer may sue in contract. This situation, however, has been eased by the enactment of certain legislation which is briefly discussed below.

Legislation Establishing Direct Recourse Against Manufacturers: Direct recourse against manufacturers for a breach of statutory warranty has been made possible in absence of privity of contract by introduction of special legislative actions. This legal recourse is available at present in South Australia, New South Wales and in the Australian Capital Territory. South Australia passed the Manufacturers Warranties Act in 1975.[41] Under this act a statutory warranty of merchantable quality arises.[42] This warranty applies where manufactured goods are sold by retail in South Australia. Purchasers are entitled to recover against manufacturers for damages caused by products which do not meet the prescribed standards. "Whenever a statutory warranty is not complied with the purchaser may recover against the manufacturer damages for breach as if the action were for breach of warranty under a contract between the manufacturer and purchaser."[43] What is essentially available to purchasers is a legal framework which provides a deemed contract with the manufacturer. By adopting this approach the difficulties

that may arise under an action of negligence are avoided. The South Australian legislation was followed by the Australian Capital Territory Manufacturers Warranties Ordinance in 1975. This Ordinance was repealed in 1976 but reenacted in 1977 as the Law Reform (Manufacturers Warranties) Ordinance 1977.[44] The Ordinance also imposed statutory warranty in favor of the consumers and provides similar remedies. In New South Wales purchasers of goods may also have direct recourse against the manufacturers for breach of implied warranties.[45] However, the nature and application of such a recourse has not progressed as much as in South Australia or the Australian Capital Territory discussed earlier. When a purchaser establishes in the proceeding before a court that a defect exists in a product and such a defect constitutes a breach of merchantable quality, the court in its discretion may order the manufacturer to become a party to these proceedings.[46]

Invalidation of Clauses Restricting Liability: Provisions of the Trade Practices Act of 1974 relating to implied terms in consumers transactions mark a major advance in consumer protection in Australia.[47] The Act, Commonwealth legislation, deals with a variety of commercial matters and prescribes certain implied warranties designed to protect the consumers.[48] Any advanced statements to exclude or restrict such statutory standards of warranties are declared void.[49]

The warranties available under the provisions of this Act are, however, provided for those who are in privity of

contract with the seller. In most instances manufacturers are not in a contractual relationship with the consumers and therefore are not easily reached by consumers' claims. This matter has been discussed by the Trade Practices Act Review Committee appointed in 1976.[50] The committee recommended that the Act be amended to impose upon the manufacturers liability for breach of express or implied warranty and to put them under obligation similar to that imposed upon immediate suppliers or sellers. There are reports to the effect that the Australian Commonwealth Government has accepted these recommendations and has prepared a draft bill to implement them.[51]

(c) Common Law Canada

Product liability law in common law jurisdictions of Canada generally follows that of England and the Commonwealth.[52] Traditional approaches based mostly on implied warranties in contract and on negligence in torts provide the legal framework of product liability suits against the manufacturers. The courts utilize different techniques especially the res ipsa loquitur doctrine[53] to aid plaintiffs in products liability claims. The present situation of the law of product liability in Canada, however, falls short of a regime of strict liability.[54]

One of the most important developments in the law of product liability in Canada is the decision of the Supreme Court of Canada in General Motors Products of Canada Ltd. v. Kravitz[55] rendered in 1979. The case originated

in the Province of Quebec and involved a defective automobile. The Supreme Court of Canada upheld the Quebec Court of Appeals and held the manufacturer of that automobile liable for economic loss suffered by the purchaser of that car even though the manufacturer was not in privity of contract. The Kravitz decision marks a significant step in the evolution of the Canadian jurisprudence on products liability and will, undoubtedly, have substantial impact on the development of law in this field. The case will be further discussed in the section on product liability law in civil law of the Province of Quebec.

A number of Canadian Provinces passed legislation aiming at consumer protection.[56] Other provinces initiated intensive studies and proposed remedies to deal with this matter.[57] The legislation mostly dealt with the question of warranties in sale contracts. It provides for prescribed statutory implied warranties in consumer goods and renders any clauses limiting or excluding such warranties invalid. The Provinces of Manitoba, British Columbia, Nova Scotia, Saskatchawan, and New Brunswich have passed statutes to that effect.[58] A special study has been undertaken by the Ontario Law Reform Commission. This Commission has produced a comprehensive report with proposals to deal with the problems arising from defective products. The Ontario Law Reform Commission's Report on Consumer Warranties and Guarantees in Sale of Goods[59] disapproves of the existing traditional privity rule that usually precludes consumers from direct suits against the manufacturers. The Commission made

recommendations to the effect that the manufacturers be deemed to give warranties to the consumers of their product.[60]

(d) The United States

Product liability law, in its modern development, can be described as an American product invented by the American courts. At present, product liability law constitutes a separate highly evolved body of case law. Compared to other countries product liability law in the United States is by far the most advanced.[61]

Product liability law evolution in the United States took a gradual step-by-step process beginning with the creation of exceptions to the privity rule which protected manufacturers and dealers and culminating in the adoption of the strict liability rule. This process has generally taken the following pattern: abolition of the requirement of privity when dealing with inherently and imminently dangerous products; total abandonment of the privity requirement in a tort action against a manufacturer or supplier; extention of warranty liability to cover the sale of any product without regard to privity; and finally the adoption of the strict liability doctrine.[62] These gradual developments are discussed below.

Traditionally privity of contract precluded an injured party from suing a manufacturer unless a direct contractual relationship had existed between the two parties. This rule was justified for several reasons: first of all the intervening resale by a responsible party insulated the manufacturer and secondly, it was socially viewed to be a heavy burden

upon the manufacturer to be responsible to hundreds of persons from a distance with whom he had no dealings.[63] Exceptions to this rule, however, were soon made. Most important were those instances when manufacturers were held liable to a third party for negligence in the sale of "imminently" or "inherently" dangerous products.[64]

The first major development to change the prevailing situation of privity and its exceptions occurred in 1916. In the famous decision of MacPherson v. Buick Motor Co.,[65] the exception was expanded from covering the mentioned "imminently" or "inherently" dangerous products to all negligently made products. Judge Cardozo, speaking for the New York Court of Appeals, held the manufacturer of an automobile liable to the ultimate purchaser, who was injured when the automobile collapsed as a result of a defective wheel. Judge Cardozo stated that:

> If the nature of a thing is such that it is reasonably certain to place life and limb in peril when negligently made, it is then a thing of danger. Its nature gives warning of the consequences to be expected. If to these elements of danger there is added knowledge that the thing will be used by persons other than the purchaser, and used without new tests, then, irrespective of contract, the manufacturer of this thing is under a duty to make it carefully. That is as far as we are required to go for the decision of this case.[66]

The MacPherson rule predicated the manufacturer's liability on negligence rather than on contract. Under this rule the manufacturer's liability is based upon a general duty to use reasonable care in the manufacture of products to avoid injury to those who foreseeably will use it. The

MacPherson decision found immediate acceptance and was eventually followed by all states.[67]

Although the MacPherson rule opened the courts to plaintiff's suits against the manufacturer, the burden of proving the manufacturer's negligence continued to present difficult problems. Injured parties had to show that the manufacturer failed to exercise the care of a reasonable prudent manufacturer. To relieve the plaintiff of this sometimes impossible burden, the courts returned to the old concept of warranty. Pursuing a claim on warranty (which is basically a contractual recourse), a plaintiff had only to prove that the manufacturer breached his promise, expressed or implied, by furnishing a product which is not of merchantable quality or which does not fit the intended use. This approach worked out effectively provided that privity of contract is maintained or available.[68] Judicial practice soon started to make exceptions and began to erase the privity requirement. Exceptions were first made for food products, then were extended to drugs, beverages and cosmetics.[69] Finally, in 1960, the next major development in product liability law took place. The New Jersey Supreme Court decided the landmark case of Henningsen v. Bloomfield Motors[70] in which the full step was taken as the rule of departing from the privity requirement was extended to cover practically all products. The Henningsen Court held the manufacturer and dealer of a defective automobile liable for a breach of implied warranty without any showing of negligence and without privity of contract. The action was brought by

the wife of an automobile purchaser against the manufacturer and the dealer from whom it was purchased to recover from injuries sustained when failure of the steering mechanism caused the car to crash into a wall. The Supreme Court of New Jersey said:

> We see no rational doctrinal basis for differentiating between a fly in a bottle of beverage and a defective automobile. The unwholesome beverage may bring illness to one person, the defective car with its great potentiality for harm to the driver, occupants and others, demands even less adherence to the narrow barrier of privity.... Accordingly, we hold that under modern marketing conditions, when a manufacturer puts a new automobile in the stream of trade and promotes its purchase by the public, an implied warranty that it is reasonably suitable for use as such accompanies it into the hands of the ultimate purchaser. Absence of agency between the manufacturer and the dealer who makes the ultimate sale is immaterial.[71]

Following New Jersey many states abandoned the privity requirement and the new rule gained acceptance by the courts throughout the country.

Various arguments were made to support this new approach of extending implied warranty to third party consumers. The following three which "proved convincing to the courts" have been cited by Prosser:[72]

1. The public interest in human life and safety demands the maximum possible protection that the law can give against dangerous defects in products which consumers must buy, and against which they are helpless to protect themselves; in the cases of food where there was once popular outcry against an evil industry, injuries and actions have multiplied, and public feeling is most obvious. It is now extended to other products, such as automobiles.

2. The maker, by placing the goods upon the market, represents to the public that they are suitable and safe for use; and by packaging, advertising or otherwise, he does everything that he can to induce that belief....

> 3. It is already possible to enforce strict liability by resorting to a series of actions, in which the retailer is first held liable on a warranty to his purchaser, and indemnity on a warranty is then sought successively from other suppliers, until the manufacturer finally pays the damages, with the added costs of repeated litigation....

As the New Jersey revolution was sweeping the country with its warranty expansion theory, another revolution on the west coast was, however, in progress. The California Supreme Court soon took the lead when a few years later it rendered the famous decision in Greenman v. Yuba Power Products, Inc.[73] in 1963. While the Henningsen court held the manufacturer and dealer of defective automobiles liable for breach of implied warranty, the Greenman decision rested on strict liability in tort. Mrs. Greenman bought her husband a combination power tool which could be used as a saw, drill or lathe. When Mr. Greenman used it as a lathe, a piece of wood flew out and struck him on the forehead. Mr. Greenman was allowed to recover against the manufacturer of the product even though he could not prove negligence on the part of the manufacturer and even though there was no contractual relationship between the parties. The Court, in announcing the new theory said:

> .... A manufacturer is strictly liable in tort when an article he placed on the market, knowing that it is to be used without inspection for defects proves to have a defect that causes injury to a human being. Recognized first in the case of unwholesome food products, such liability has now been extended to a variety of other products that create as great or greater hazards if defective.... Although ...strict liability has usually been based on the theory of an expression implied warranty running from the manufacturer to the plaintiff, the abandonment of the requirement of a contract between them, the recognition that the

> liability is not assumed by agreement but imposed by law...and the refusal to permit the manufacturer to define the scope of its own responsibility for defective products...make clear that the liability is not one governed by the law of contract warranties but by the law of strict liability in tort.[74]

The legal development brought about by the Greenman decision had a remarkable impact on the nature and the process of the product liability law in the United States. Under the reasoning of this decision the emphasis is shifted from the manufacturer's conduct and behavior to the product itself and its performance.[75] If the product is proved to be defective then the parties responsible for placing it on the market are liable for any injuries caused by such a product. Thus, in order to recover damages caused by a defective product a plaintiff does not have to prove negligence on the part of the manufacturer.[76]

The new theory of strict liability in tort adopted in the Greenman case was seized by the courts in other jurisdictions of the United States. At present this theory is adopted by almost all states. The theory of strict liability in tort has undergone extensions and has been applied to other groups such as retailers and suppliers. This was made on the assumption that those groups would place pressure on the manufacturer to produce safe products.[77] In the meantime the courts extended protection provided by this theory beyond users and consumers of products to all persons who might foreseeably be injured by defective products.[78] Strict liability in tort has been codified in the Restatement (Second) of Torts, Section 402A which was drafted by the

American Law Institute in 1965. Under section 402A, liability is imposed on the seller of a product in defective condition unreasonably dangerous to users, even though the seller has exercised all possible care in the preparation and sale of his product.

Proliferation of product liability litigation in the United States during the last decade particularly in liberalizing the scope and the application of the theory of strict liability rules and procedures, has created a great deal of inconsistency and uncertainty in this field.[79] This situation coupled with verdicts granting big awards created difficult conditions for the industry. Insurance premiums were posted so high that some industries were threatened with going out of business or being exposed to an open-ended liability.[80] An Interagency Task Force conducted a major study in 1976 and concluded that the current legal system is one of three main causes of the product liability crisis. The Task Force noted that the law of product liability has become filled with uncertainties creating a lottery for insurance rate makers and injured parties.[81] The Interagency Task Force was followed by a comprehensive Congressional hearing conducted by the Subcommittee on Capital, Investment and Business Corporations. The Subcommittee released five volumes of congressional hearings with a final report published in March 1978. This report stated that the present product liability tort litigation system "is fraught with uncertainty"[82] and that uniformity in tort litigation system can be achieved only "as a result of Federal legislation,

interstate compact or simultaneous adoption of uniform state laws."[83] On July 20, 1978 the United States Administration announced its program to address the product liability problem. A principal long-range measure was a model uniform product liability law.[84] A Task Force on Product Liability and Accident Compensation within the U.S. Dept. of Commerce was charged with the task of formulating a model product liability law for voluntary adoption by individual states. A draft Uniform Product Liability Law was produced and published in the Federal Register in January 1979.[85] Although the U.S. Dept. of Commerce suggests that the draft law is "a model law for use by states" the draft model has already been introduced to the U.S. Congress for enactment on the Federal level.[86] The most recent attempt was made by Congressmen Preyer, Broyhill, Scheur and Luken who have, collectively, introduced this Draft Uniform Product Liability Law on Ausust 1, 1980 (H.R. 7921).

2. In Civil Law Countries

(a) France

In the absence of any specific statutory law to deal with the question of products liability recourse is made to the general provisions of liability available in the French Civil Code.[87] The French jurisprudence has effectively utilized these provisions and built an impressive structure which provides adequate solutions and remedies.[88] Through a broad interpretation to the legal principles available in contractual and delectual liability of a few provisions the

French courts have provided a progressive legal framework in which manufacturers liability can be determined. The law of products liability and its fertile development in France can be cited as an interesting example as to how a system of codified law can be progressively interpreted and advanced to meet modern needs.

A defective product may cause damage either to the purchaser of that product who is in a contractual relationship with the vendor, the supplier, or the manufacturer or anyone in this commercial chain. Or it may cause damage to a third person who is not a party to any contractual relationship. Making this distinction is particularly important because it relates to a well established principle in the French jurisprudence. Where contractual privity exists only a contractual action can be maintained if the damages complained of are a result of breach of that contractual relationship.[89] Application of this principle amounts to the conclusion that where a contractual relationship exists only contractual remedies are available.[90] Although this principle is generally adhered to, however, its practical value in product liability claims does not seem significant. Contractual remedies are as effective as those offered to a third party by an action based on tort.[91]

Products liability has developed under both theories contract and tort. Remarkable solutions and remedies have evolved in both areas.

Contractual Remedies: Contractual remedies are basically derived from the sales provisions of the French Civil Code.[92]

Under Articles 1643 the seller by implication warrants against hidden defects. He is responsible for "latent defects" which could render the merchandise unfit for its intended use. Remedies to a breach of this obligation are found in the subsequent two articles of that Code:

> Article 1645: If the vendor knew of the defects he is bound not only to return the price which he has received, but he is also liable to the purchaser for all damages.
>
> Article 1646: If the vendor was ignorant of the defects of the thing, he shall only by bound to return the price and to reimburse the purchaser for the expenses occasioned by the sale.

In cases involving products liability claims the French Courts have introduced an important dimension to the interpretation of these two provisions. The French courts assert that a seller who by virtue of his "profession" could not be ignorant of the defect is to be equated with the seller who knew of the defect within the meaning of Article 1646 cited earlier. By virtue of that interpretation the liability imposed upon professional sellers is not confined to expenses occasioned by the sale but encompasses all damages suffered by the buyer. Application of this interpretation amounts to the rule that the obligation imposed upon professional sellers is effectively one which guarantees the absence of latent defects in sold goods.[93] Accordingly, a vendor who is a manufacturer or a professional merchant, by reason of experience is supposed to know of the hidden or latent

defects of the goods. Presumption of knowledge on the part of the manufacturer or professional merchant is generally considered irrebuttable. Where liability is established pursuant to these rules compensation extends to all damages suffered by the buyer, including the costs the latter has had to pay in damages to an injured sub-purchaser or a third party.[94]

The issue as to what constitutes a latent defect is of major significance. Latent defects include, in product liability claims, according to some authority, not "only manufacturing or production flaws in the product itself but also inadequate design or construction and other shortcomings of the product that make it unsafe or otherwise unfit for its intended use."[95] The French courts seem to have expanded the scope of the latent defect thereby protecting purchasers and consumers.[96]

The question of privity in contract is a basic requirement in pursuing a product liability claim on the basis of contract theory. Manufacturers usually sell their products to consumers and users through dealers, agents, local vendors or others. The privity requirement therefore, mandates establishing a chain of claims before reaching the manufacturer who produced a defective product. This may result in several indemnity claims which in turn will prolong the litigation and the chain of the lawsuits. In this situation, it is reported that the French courts do allow direct action in which a sub-purchaser can claim "directly" from a remote seller thereby avoiding this type of multiple litigation.[97]

Mr. H. Duintjer Tebbens provides the following comment on the courts tendency to allow a direct action against a manufacturer of defective products by an injured plaintiff with whom the manufacturer is not in privity.

> There are several theoretical foundations, or rather explanations, of this direct action, e.g. that the warranty runs with the goods, or that the right of action is tacitly assigned along the chain of distribution, but so far none of the theories has been explicitly endorsed in caselaw. Nor are the details of its implementation fully established, e.g. in the case of sales between professionals where the defect may be latent to a sub-purchaser but patent to a middleman. Perhaps the significance of this direct action for PL is diminishing, since recently a parallel action sounding in tort appears to have developed which partly overlaps a contractual direct action.[98]

The evolution of contractual remedies in products liability claims was also paralleled by the development of other remedies in the field of tort. These types of remedies are discussed below.

Tort Remedies: Tort (or delictual) remedies in products liability claims are derived from a few broad provisions of the Civil Code. The central premise of these provisions is the concept of "fault".[99] Article 1382 of the Civil Code provides that: "Every act by which a person causes damages to another makes the person by whose fault the damage occurred liable to make reparation for such damage." An injured plaintiff, therefore, must show that he suffered damage and that this damage was caused by the "fault" or the wrongful act or omission of the defendant. The notion of "fault" and its subsequent requirement of proof is rather difficult to establish. In certain situations of products liability it

may be even impossible for an injured plaintiff to prove "fault" of a manufacturer especially when such a claim involves a highly technical product. The French courts responded to this phenomenon by using different legal techniques particularly by liberalizing the burden of proof and by at least putting it in line with those contractual remedies. Mr. Tebbens describes these efforts as follows:

> ....the highest Court has in recent pronouncements held that the same condition of a product which would in the buyer-seller relationship give rise to liability for latent defects constitutes a fault in regard to third persons. The fault lies in the putting into circulation of a defective product that causes damage, and no showing of a specific act of negligence is required. This does not mean, of course, that there is commonly nothing for which to blame the manufacturer, for proof of a latent defect that existed at the moment the product left the manufacturer does raise an inference that in his 'environment' a fault has been committed by someone. Only the burden of pleading and proof is limited to a latent defect, i.e. unfitness for its intended or normal use. The similarity with the effect of res ipsa loquitur in Anglo-American law has been noted.[100]

Perhaps the most interesting and daring technique that the French courts and scholars have developed in their search for tort remedies to products liability claims is the utilization of the principle of presumed responsibility of the "guardian" or "keeper" prescribed in Article 1384. Under this principle the keeper or the guardian is liable for damages caused by things under his control unless he proves that the damage was in fact caused by another person or due to an Act of God. In product liability claims pursued on this basis a distinction is made between the "garde de la structure" (control over the internal dynamism) and the "garde

du comportement" (control over external deportment as conditioned by a transporter, retailer...).[101] Accordingly it is asserted that while a manufacturer ordinarily relinquishes the garde du comportement of his product when he puts it into commerce, damages may occur due to internal or inherent flaws of an insufficient control of its structure. The manufacturer is, therefore, liable under these conditions because he is the "guardian of the structure" of the product. This legal technique is explained in the following decision rendered by the French Court of Cassation on June 5, 1971 in Societe Commerciale Europeenne des Brasseries "Brasseries de la Meuse" v. Etablissements Boussois-Souchon-Neuvesel et al.[102]

A bottle of lemonade exploded in the hand of a child causing some injuries. The father of the child brought an action on behalf of his child against the vendor who inturn joined in the proceedings against the company that had manufactured and supplied the lemonade, the bottling plant owner and the company which manufactured the bottle. Judgment was given against the company which manufactured and supplied the lemonade on the grounds that the manufacturing company has retained the "garde" of the bottle of the lemonade. The decision concludes that only the manufacturer had the possibility of testing the good condition of the bottle. The defendant manufacturing company, however, appealed the decision to the Court of Cassation alleging among other things that the trial court did not investigate whether the succeeding owner had, before the accident, control over that bottle. The Court of Cassation in rejecting this argument

asserted that the judges on the merits could decide that the manufacturing company retain the "garde" of the bottle of lemonade. The Court said:

> But whereas the judgment, which held that there was no fault on the part of the Brasseries de la Meuse, after having observed that the object presented in itself an individual and dangerous dynamism, and that its guard could not be attributed to an owner or possessor who did not exercise any power of control and had no possibility to foresee the damage, pointed out that the Brasseries de la Meuse had proceeded to fill the bottle with a charged liquid that produced an internal pressure, and that the Brasseries de la Meuse had had control of the bottle and of its refilling because the bottles came back periodically for washing, testing, and refilling; as the decision adds that none of the subsequent owners or possessors had the possibility of testing and that the bottle exploded in the victim's hands without any shock having occurred.[103]

These judicial solutions to product liability claims demonstrate how the general theory of liability contained in the provisions of the Civil Code may be developed to work and meet the needs of an industrial society. The evolved legal remedies in the two areas of contract and tort combined can, undoubtedly, provide an efficient framework in which victims of defective products can obtain an adequate relief. This legal framework for products liability has moved liability of manufacturers from the basic "fault" liability to a strict liability, a liability which is comparable to that of the United States yet reached by a completely different approach and methodology.

(b) The Federal Republic of Germany

The regime of product liability in the German law has undergone a remarkable change during the last few years.[104]

The application of the traditional rule of fault in product liability law with the burden of proof on the injured plaintiff has been relaxed by the Bundesgerichtshof (Federal High Court). This major development came about after the landmark ruling of the Federal High Court in the "chicken vaccine" case rendered on November 28, 1968.[105] Along with this judicial breakthrough a legislative action has taken place. This is represented in the enactment of the Revised Pharmaceutical Reform Act of 1976.[106] According to the provisions of this law the manufacturer is strictly liable, irrespective of his fault for all injurious effects of his product. This law entered into force on January 1, 1979.

The law of manufacturer's liability in Germany is generally founded on the provisions of the German Civil Code. A party suffering damage due to a defective product may sue the manufacturer on the basis of contract or torts. When claims based on principles of contract, recourse is generally made to Article 459 of the Civil Code. This Article provides for a warranty of fitness. According to this Article:

> (1) The seller of a thing warrants the purchaser that, at the time when the risk passes to the purchaser it is free from defects which diminish or destroy its value or fitness for its ordinary use, or the use provided for in the contract. An insignificant diminution in value or fitness is not taken into consideration.
>
> (2) The seller also warrants that, at the time the risk passes, the thing has the promised qualities.

On account of a defect for which the seller is responsible under the provisions of the preceding Article, the purchaser may demand annulment of the sale or reduction

of the purchase price.[107] These remedies are made differently however, whenever a "promised quality" is included in the contract. Article 463 of the Civil Code states:

> If a promised quality in the thing sold was absent at the time of the purchase, the purchaser may demand compensation for non-performance, instead of cancellation or reduction. The same applies if the seller has fraudulently concealed a defect.[108]

The effectiveness of product liability claim based on contract law has, however, been limited. Under the prevailing concept of freedom of contract it is possible to limit or even exclude liability in a contract. Although the courts tended to restrict the effect of application of such clauses the impact of this problem is evident. According to one commentator:

> Such liability is normally either limited to a fixed sum corresponding to the manufacturer's or supplier's existing insurance coverage, or even fully excluded in individual contracts or in the general conditions of sale of German manufacturers. This is held to be valid except when the damage is caused internationally.[109]

Remedies based on tort, however, have been developed and advanced more than those of contract. This has generally been achieved by means of an allocation and shifting of the burden of proof. Product liability claims based on torts, are generally established on the provisions of Article 823 of the Civil Code. According to this Article anybody who intentionally or negligently causes injuries to the body or the health of another is obligated to compensate that injured person. Economic loss consequential to physical damage is recoverable in tort under Article 842. In order to hold a person liable, he must be at fault by being negligent or by committing an intentional misconduct. Under the prevailing

rules of the Civil Code, the party suffering the loss or damage should present proof of negligence on the part of the manufacturer. Establishing proof of manufacturer's negligence is difficult if not impossible in some cases involving complex and sophisticated products. In view of this the Federal High Court of Germany, in a landmark product liability case "the chicken vaccine"[110] decided on 28 November 1968 relieved the plaintiff of the burden of proof. The case involved a virus vaccine manufacturer whose vaccine was insufficiently immunized. When that vaccine was administered to the chickens of the plaintiff, a poultry farmer, it caused damages to his poultry of more than 100.000 DM. The Supreme Court ruled in favor of the plaintiff. The Court said:

> If somebody uses an industrial product in accordance with its expected use and suffers damage with respect to one of his rights specified in S.823(1)BGB, because the product had been produced defectively, then it is for the manufacturer to elucidate the events which caused the defect and to establish that they did not involve any fault on his part.[111]

The Court provided, in essence, for a presumption of liability of the manufacturer of defective goods to aid the plaintiff who had suffered damage through their use. However, this presumption is rebuttable by the manufacturer who can exonerate himself from liability when he proves that he did all he could reasonably do to prevent such an accident.[112]

(c) The Netherlands

Following the proposed draft of a new Dutch Civil Code in 1961 and in particular the draft of a special section on product liability, the question of product liability began

to receive and to stimulate both academic and judicial concerns.[113] Although the law of product liability up to present adheres to traditional liability rules such as fault, review of the legal literature shows a tendency by the Dutch courts to introduce some changes particularly by shifting the burden of proof in favor of product liability plaintiffs.[114]

Product liability legal system in the Netherlands like other civil law countries operates on two foundations; contract and delict or tort. When a contractual relationship exists between a manufacturer and a purchaser the general principles of sale contract are applicable to subsequent product liability claims. The Dutch Civil Code provides that the seller is liable for unknown defects which render the goods sold unfit for their intended use.[115] However, remedies for damages resulting from a defective product are varied depending upon whether the seller knew or did not know about such defects.[116] If the seller knew about such defects, then he is liable for all the damages which is caused by his defective product. The Dutch courts unlike the French Courts, did not develop this rule to the extent of presuming knowledge whenever the seller is a professional vendor or manufacturer.

The other legal avenue available for a product liability claim is an action based on tort or delict. The elements that are generally required for a successful action based on this approach have been summed up by one Dutch commentator[117] as follows:

(a) A person commits an act, which infringes a right of another person, or otherwise behaves unbecomingly with respect to such other persons or his interests;

(b) This act causes objectively foreseeable damage;
(c) The person committing the act is at fault.

These elements have been generally derived from the Dutch Civil Code Section 1401 and its judicial interpretation which was rendered by the Supreme Court of the Netherlands in Cohen v. Lindenbaum decided in 1919.[118] Section 1401 provides in substance that every unlawful act "onrechtmatige daad" causing damage to another obligates the party at fault to make payment for damages caused by his fault. The Supreme Court of the Netherlands gave an outstanding definition to the concept of "onrechtmatige daad" in the case cited above. An "onrechtmatige daad" means, the Supreme Court said, "an act or an omission which either infringes somebody else's subjective right or is contrary to the offender's duty in law or is unethical or fails to meet the standard of care which is proper in society, vis-a-vis somebody else or the property of somebody else."[119]

Product liability actions have been generally founded on this concept and the courts frequently held manufacturers liable on the ground of this principle.[120] In 1957 a decision was rendered by the Court of Appeals of Amsterdam holding the plant assembly of the Ford Motor Company in the Netherlands liable for damages suffered by a driver.[121] The decision was rendered after it was established that a car had been delivered with a serious manufacturing flaw in its steering-gear. Later, on at least two separate occasions, the Supreme Court of the Netherlands rendered decisions in product liability claims. In the first decision rendered in 1966 the Supreme Court held a manufacturer liable for putting on the market a faulty

sewage pipe system.[122] The Court held that the manufacturer had failed to exercise due care by not having prevented the supply of defective material. The other decision was made by the Supreme Court in 1973 in the "leaking hot-water bottle" case.[123] In this case the Supreme Court reversed the ruling of an appellate court and remanded it to another court of appeals. This later court held that the manufacturer was liable in tort "because the bottle presented such a danger that it should not have been brought into commerce."[124] The following excerpt from the Supreme Court decision in this case has been cited by Duintjer Tebbens.

> That the manufacturer's duty to take care includes that in appreciating the risk of accidents arising from defects in a specific product, he has to take into account not only those users who will take the appropriate precautions in order to prevent accidents resulting from possible defects, but the entire public to which the product is directed and of which a certain part will neglect to take such precautions.[125]

These few cases certainly show that there is a tendency on the part of the Dutch courts to depart from traditional concepts and approaches when dealing with cases involving products liability. This departure, however, did not seem to go as far as the French or the German courts. What had the Dutch courts introduced so far in claims of product liability in this respect seems to be only a partial reversal of the burden of proof.

Finally, the provision dealing with product liability which was contained in the Draft of the New Civil Code which was published in 1961 was withdrawn in 1976. It is reported that this withdrawal was made in anticipation of future

harmonization with the rules contained in the Products Liability Convention of the Council of Europe and also the draft Directive of the European Communities on products liability.[126]

(d) Italy

Review of legal literature shows that the question of product liability law is not advanced in Italy. In the absence of any specific legislative action the judicial practice does not seem to have produced any remarkable innovation to advance this field.[127] Product liability claims are established on rules of contracts and torts contained in the Italian Civil Code. Product liability claims based on the contractual relationship are generally established on the provisions of the Italian Civil Code Articles 1490-1495. Article 1490 provides for a warranty against defects whenever the sale of a goods are made.

> A seller is bound to warrant that the thing sold is free of defects which render it unfit for the use for which it was intended or which appreciably diminish its value. An agreement excluding or limiting such warranty has no effect if the seller has, in bad faith, omitted to mention such defects to the buyer.[128]

This warranty is inapplicable, however, if the buyer knew of the defects in the product sold at the time of the contract and also if such defects are easily detectable.[129] Remedies available to the buyer when the seller violates the provisions of Article 1490 include cancellation of the contract or reduction of the price. Under Article 1494, however, where the seller is at fault, he is obligated to compensate the buyer for all damages unless he proves that

he had no knowledge of the defect.[130] The period of limitations for starting an action is rather short. The claim must be made within eight days after the discovery of the defect and in any event no later than one year after delivery of goods.[131] The scope of application and effectiveness of these contractual remedies is restricted by the requirement of privity of contract. According to Italian law only direct purchasers have the right to sue sellers. Since in most cases the seller is not the manufacturer of the goods, it would be extremely difficult for the consumer to establish the liability of the manufacturer. The only way to hold the manufacturer liable is by the establishment of a chain of actions. This situation is further complicated by the short period of limitations described earlier.[132]

Product liability claims founded on torts, however, seem to offer more effective remedies. When the damage caused by a defective product can be traced back to the manufacturer's negligence, the manufacturer will be held liable.[133] Recourse by a customer against a negligent manufacturer does not require a contractual relationship. Article 2043 of the Italian Civil Code provides:

> Compensation for unlawful acts: Any fraudulent, malicious, or negligent act that causes an unjustified injury to another obligates the person who has committed the act to pay damages.[134]

Some Italian courts made use of this provision and held manufacturers liable for injury caused by their defective products, especially in claims relating to products which are packed and sealed over which the intermediate seller

generally has no control.[135] This provision was also applied against a manufacturer of a defective automobile who was held liable for damages caused to a third party.[136] The judgment, however, was reversed on appeal.[137]

(e) Switzerland

Review of the provisions relating to civil liability in the Swiss Code of Obligation reveals that manufacturers of defective products may be held liable for injuries resulting from defective products. This liability may be founded, like in any other civil law country, on the bases of breach of contract or on the basis of tort or delict. In general the situation of product liability in Switzerland is not developed. The courts do not seem to introduce techniques to reverse the burden of proof as did the German courts. The following is a general statement of the law of the manufacturer's liability prevailing in the Swiss Code of Obligations under provisions of both contract and torts. Article 97 of this Code provides:

> The debtor who fails to perform his obligation or does not fulfill it properly, is liable for damages unless he proves that there is no fault on his part.[138]

Limitation or exclusion of liability in advance through contractual agreement is rendered void. Whenever an agreement is made to exclude or limit liability resulting from "gross negligence" or "intentional illegality".[139] In addition the law grants authority to the courts to invalidate any advance declaration for waiving liability.[140] In the case of a promised quality in the sold goods the buyer has an option to claim rescindment, damages or delivery of

merchantable goods of the same kind.[141] In the absence of warranty, on the other hand, the seller is under no liability for defects which the buyer can ascertain by the exercise of reasonable care.[142]

Claims of manufacturer's liability pursued in tort or delict involves the application of Article 41 of the Swiss Code of Obligations. This Article provides that:

> Every person who causes damages to another in an unlawful manner, be it willfully or be it negligently or imprudently, is liable for compensation.[143]

A plaintiff suffering damages has the burden of establishing proof according to traditional rules. Damages recovered may include property damages, loss of earnings, medical expenses, pain and suffering.[144] The defendant manufacturer is, however, not left without defenses. The court may refuse or reduce compensation where the injured party has assented to the injury, or where circumstances for which he is responsible have contributed to the origin or the aggravation of the damage or otherwise prejudiced the position of the party liable.[145]

(f) Civil Law Canada (Quebec)

The law of products liability in the Province of Quebec has undergone a progressive change in the last two years. Two outstanding developments have taken place in this field of law. First, early in 1980 of the Quebec Consumer Protection Act came into force.[146] Second, the ruling of the Supreme Court of Canada in 1979 in the landmark case of General Motors Products of Canada Ltd. v. Kravitz[147]

which originated in Quebec. Both of these developments will, undoubtedly, have substantial impact upon the future course of product liability law in this province.

Products liability law in Quebec is mainly based on the provisions of the civil code.[148] Both principles of contract and tort may be invoked to advance a claim of product liability. Contractual remedies have mainly involved the application of Article 1527 of the Civil Code which provides that:

> If the seller knew the defect of the thing, he is obliged not only to restore the price of it, but to pay all damages suffered by the buyer. He is obliged in like manner in all cases in which he is legally presumed to know the defect.[149]

Presumption of knowledge referred to in the last paragraph of this Article applies to both the manufacturer and the specialist or professional vendor. Scholarly writings and judicial practice seem to have settled on this premise.[150] However, as to whether the question of such presumption of knowledge is rebuttable; is not clear. Judicial positions on this matter seem vague and inconsistent.[151]

In practice the effectiveness of a recourse based on this Article and the imposition of presumption of knowledge on the part of the manufacturer is, however, limited. The requirement of privity of contract curtails the number of direct claims against the manufacturer. This situation, however, will be substantially changed after the ruling in the landmark case of General Motors Products of Canada Ltd. v. Kravitz[152] in 1979. In General Motors Products of Canada Ltd. v. Kravitz[153] Leo Kravitz, a Montreal lawyer, bought a

new Oldsmobile in 1968 from Plamondon Chevrolet Oldsmobile Ltee, an authorized General Motors dealer in Montreal. Mr. Kravitz signed the standard form of a sale agreement and upon delivery received a warranty copy from the manufacturer of the automobile. The warranty provided that the automobile was free from defects in workmanship or material for 24 months or 24,000 miles whichever occurred first.

When Mr. Kravitz started to use the car, rumbling noise and rattles were heard from the front end of the car. After making several attempts to have the car fixed at the dealers shop Kravitz lost faith and consequently established legal proceedings against both General Motors and the dealer. A judgment was rendered against the defendants on September 1, 1976 holding that the automobile had a serious undisclosed latent defect which justified the cancellation of the sale, plus the award of damages under Article 1527 of the Civil Code. This judgment was upheld by the Quebec Court of Appeals. In February 1978, the case reached the Supreme Court of Canada. The Supreme Court of Canada upheld the judgment based on the legal warranty against latent defects. The action was based on three grounds; the legal warranty against latent defects, a conventional warranty given by the manufacturer, and delictual liability arising from the act of putting into the stream of commerce a defective automobile. The Supreme Court found it necessary to disregard the last two grounds of this action, thus basing its ruling on the first grounds only which seemed enough to rule on the case. The Court said that the warranty is not one that

is personal to the purchaser rather it is "a claim that is tied to the thing to which it relates."[154] Accordingly the Court concluded that the purchaser of the automobile becomes "the creditor" of the General Motor's warranty against latent defects. In this capacity the purchaser of the automobile had a right of action not only against the dealer but also against the manufacturer. The Court said:

> When a subpurchaser acquires ownership of the thing he becomes creditor of the legal warranty against latent defects owed by the first seller to the first purchaser. As we know such a claim has two main objects: the first is the cancellation of the sale and the second is payment of damages. Hence the claim transferred to the subpurchaser includes both the right to cancel the sale made by the first seller to the first purchaser and the right to the damages. The claim is transferred to the subpurchaser in its entirety....[155]

Product liability claims can also be advanced on the basis of the law of delict. Liability in delict is generally based on proof of fault. The primary source of manufacturer's liability is Article 1053 of the Civil Code. One of the most important cases of product liability pursued on the basis of the law of delict is Cohen v. Coca Cola[156] decided in 1967. A restaurant employee was injured when a carbonated beverage bottle exploded in his hand. An action was made against the manufacturer Coca Cola Co.,. The court held the manufacturer liable for injuries caused to the plaintiff. The Court said:

> On the evidence as a whole the Court finds that the defendant was negligent in not having an inspection system adequate to prevent defective bottles reaching customers. It was the fault of the defendant that the bottle exploded because the bottle provided by the defendant was not strong enough to withstand the pressure of the gas put into it by the defendant.[157]

Earlier, however, the Quebec Court of Appeal had dismissed the plaintiff's action, because he faited to discharge the burden of establishing that the bottle of Coca-Cola was not damaged in some way after it left the manufacturer.

In general, product liability remedies in delict do not seem to have evolved as much as those in contract. Traditional concepts based around fault are still binding. The legal standard to which the manufacturer is bound under the present situation is still far from a system of strict liability.

Finally, the new Consumer Protection Act which came to force in Quebec early in 1980, provides a range of civil remedies for consumers against manufacturers. Section 53 of that Act provides that consumers are entitled to a direct recourse against the manufacturer.

> A consumer who entered into a contract with a merchant is entitled to exercise directly against the merchant or the manufacturer a recourse based on a latent defect in the goods forming the object of the contract, unless the consumer could have discovered the defect by an ordinary examination.
>
> The merchant or the manufacturer shall not plead that he was unaware of the defect or lack of instructions.
>
> The rights of action against the manufacturer may be exercised by any consumer who is subsequent purchaser of the goods.[158]

The rules and remedies provided by this piece of legislation and also those provided by the Supreme Court ruling in the Kravitz case will certainly advance the situation in regard to contractual remedies of product liability claims against the manufacturers.

3. In Other Countries

(a) The Soviet Union

The legal system of the Soviet Union provides a mechanism for pursuing product liability claims against the manufacturers of defective products. Both substantive and procedural legal rules are available and when applied may produce adequate remedies for injured parties. In practice however, product liability suits or courts decisions almost do not exist.[159] Review of legal literature dealing with this question does not show any reported cases. The absence of this type of litigation and claims in the Soviet Union has been attributed to reasons related to the social, political and economic structure prevailing in that country.[160] The following is a brief review of the provisions that may be invoked to establish a legal framework for product liability claims.

Basically the classical two approaches in contract and in torts are available for a consumer to proceed a claim against a manufacturer. In the following to illustrate a brief review of the legal remedies available in the Russian Soviet Federated Socialist Republic (RSFSR) which is the largest and most populated state of the Soviet Union, will be made.

Recourse based on contract can be founded on the provisions of Sections 245-247 of the Civil Code of the R S F S R. Section 245 provides:

> The quality of the thing sold must comply with the terms of the contract, or if the contract is silent, with the usual requirement. A thing sold by a trading organization must comply with the state

> standard, technical conditions or samples laid down for thing of the kind unless the type of the contract otherwise requires.

The remedies available for a purchaser of a defective product are enumerated in the subsequent section. He is entitled to demand at his option one of the following:[161]

> (1) The replacement of the thing, if described in the contract in generic terms, by one of the suitable quality;
> (2) Proportionate reduction of the price;
> (3) Removal of the defects by the seller at his own expense, or reimbursement to the buyer of the loss or correcting them himself;
> (4) Rescission of the contract with reimbursement of the buyer's losses.

As to period of limitation the buyer is entitled to present a claim to the seller as soon as he discovers the defect. In any case, however, claims should be made no later than six months after the date of the delivery. Recourse based on torts, on the other hand, can be established on the provisions of sections 444-446. Section 444 provides:

> Harm caused to the person or property of a citizen and also harm caused to an organization must be made good in full measure by the person causing it. The person who caused the harm is not liable to make it good if he proves that it was not caused by his fault.

Under Section 445 an organization is liable for harm caused by the fault of its workers.

> An organization is bound to make good harm caused by the fault of its workers in the course of performance by them of their duties of their labor or employment.[162]

It is evident from the text of this provision that liability of the manufacturer is founded on the doctrine of fault. There is a presumption of fault on the part of the manufacturer. The plaintiff has to prove the injury and

causal connection. The defendant exonerates himself from liability if he proves that he exercises due care in the manufacturer of the product. Contributary negligence by the victim is also another factor in releasing the manufacturer's liability and in limiting the extent of compensation.[163]

(b) Japan

Although the subject of product liability has received extensive treatment in Japan, neither the scholarly writings nor judicial practice seem to have produced any doctrinal evolution comparable to that of the United States or West Europe.[164] This country which is known for its high volume of industrial production has witnessed only a few litigated claims of product liability.[165]

Product liability law is founded on the traditional principles of contracts and torts contained in the Japanese Civil Code, Article 570 of that Code provides:

> If any latent defects exist in the subject matter of a sale, the provisions of Article 566 shall apply with necessary modification, except in the case of a compulsory sale by official auction.

Remedies available to the buyer under Article 566, include the right to rescind the contract and the right to claim damage.[166] Both remedies, however, are subject to certain conditions. Rescinding of the contract or claim of damages must be made within one year from the time in which the buyer became aware of the fact.[167]

On the other hand, a product liability claim by a third party may be established on the general principles

of torts. Article 709 of the Civil Code provides:

> A person who violates intentionally or negligently the right of another is bound to make compensation for damage arising therefrom.

The scope of compensation mentioned above is not limited to pecuniary damages. It includes damages to person, liberty or reputation of another or to his property rights.[168] In assessing such damages, however, the court may take into consideration any negligence or fault on the part of the injured party. The period of limitation extends three years from the time the injured party becomes aware of the damage or twenty years from the occurrence of such an unlawful act causing such damages.[169]

C. Development of Product Liability Law on the International and Regional Level

As seen from the previous section of this chapter the national legal systems of the countries studied treated the subject of product liability law in different ways. Product liability and its modern development in those countries is far from consistency and uniformity. Considering the fast movement of products across the borders of many countries product liability and its ramifications can no longer be confined to national borders of one country. Product liability law may, therefore, create adverse effects to international trade and cause difficult legal and economic situations. Influenced by such considerations the question of product liability has received considerable concern by some international organizations which in turn introduced

uniform legal framework to coordinate international development in this field.

In the United Nations the General Assembly, in a resolution dated December 1973 dealing with international trade, asked the United Nations Commission on International Trade to study this matter.[170] The resolution also invited the Commission:

> To consider the advisability of preparing uniform rules on the civil liability of producers for damages caused by their products intended for or involved in international sale or distribution.[171]

The efforts of the United Nations Commission on International Trade did not produce very much in that direction except for initiating some studies on this subject.[172] In the meantime, however, several European organizations have succeeded in reaching some international instruments proposing both procedural and substantive uniform rules to deal with this question. Provisions contained in these instruments constitute the newly emerging rules of international law of product liability. These international instruments are briefly discussed hereinafter.

1. The Hague Conference on Private International Law and the Convention on the Law Applicable to Products Liability

The purpose of this convention was to provide rules for determining which system of law would govern the liability of a manufacturer if a defective product caused injury to a person in another country.[173] This convention commonly known as the Hague Convention was prepared in 1972

by the Hague Conference on Private International Law. The Conference itself was established in 1893 and since then has been working toward the unification of the rules of private international law among its members which at present includes 28 states. The Convention has been signed by several states. It has been ratified by France, Norway and Yugoslavia. The Convention came into force for these three countries as of October 1, 1977.[174]

In dealing with the question of applicable law to product liability claims the Convention adopts a scheme of choice of law process centered around two basic considerations: the lex loci delicti (place of injury rule) and the victim's habitual residence. Under certain circumstances other considerations would be taken into account. The scheme of choice of law available under this convention is later discussed in detail in the chapter on conflict of laws.[175]

2. The Council of Europe and the Strasbourg Convention on Product Liability in Regard to Personal Injury and Death

The Council of Europe which has at present 28 state members began its consideration of product liability in 1970.[176] A Committee of experts on the subject of product liability was set up by the Committee of Ministers of the Council during the same year and was asked to prepare measures for harmonizing the substantive law of member states in the field of product liability. The Committee, was composed of experts from member countries and observers representing industry, commerce, insurance, consumers, a

number of international organizations and some non-member states such as the United States, Canada, Finland, and Spain.[177] After preparing a comprehensive study of the law of product liability applied in the major European States, the United States, Canada and Japan, the Committee commenced a series of meetings between 1972 and 1975. During the process of preparing a draft convention, the Committee, as stated in the Draft Explanatory Report, took particular note of the following guiding principles:[178]

A. There was an absence in all countries of special rules governing the liability of producers;
B. case-law solutions, to some jurisdictions, being based on the general principles of legal liability had recourse to fiction to ensure the better protection of consumers and were highly complex;
C. there was an almost general trend towards stricter liability of producers apparently caused by a desire to protect consumers from the effects of new techniques and marketing and sales methods;
D. it was important to introduce special rules on the liability of producers worked out at European level, since the question of products liability could no longer be confined within national frontiers.

The text of the Convention along with an Explanatory Report containing commentary on the provisions of the convention were formulated, approved by the Committee of Ministers and opened for the signature of Member States on January 27, 1977. The Convention was signed by several countries and is, at present, enforced in France, Belgium and Luxembourg.

This Convention deals in a comprehensive manner with all the substantive and procedural issues arising in the field of product liability law. It provides definitions

for "product", "producer", the conditions under which a "defect" may exist in a product, the bases of liability, defenses open to a manufacturer and period of limitation.

The basic premise of this product liability Convention is its acceptance of the system of strict liability of the manufacturer. The key to this strict liability system is contained in the provision which defines a "defect". A product is defective when it does not provide the safety which a person is entitled to expect.[179] In light of this definition, what a plaintiff has to prove to recover damages is only to establish injury, the defect and the causal connection between the defect and the injury.[180] The manufacturer may exonerate himself from liability if he proves that he did not put the defective product into circulation or the product defect did not exist when the product was put into circulation.[181] In cases of contributory negligence the compensation may be reduced or disallowed after considering all the circumstances.[182] The Convention, by providing this relatively simple system of liability, has achieved a balance between the interests of the consumers and those of the manufacturers. The consumers interests are served in so far as he will no longer have to prove fault or negligence on the part of the manufacturer. Such a proof of negligence is often difficult especially in view of the modern technological and complex industrial methods. Manufacturer's interests are also taken care of because liability was not made absolute. Also because a manufacturer is provided with several effective defenses to discharge his

liability in legitimate situations.

3. European Economic Community and the Draft Directive Concerning the Approximation of the Laws of Member States Relating To Product Liability

This Draft Directive has been prompted by the divergencies existing in the national laws of member states relating to the field of product liability.[183] The Memorandum which accompanied the first draft of this Directive stated the following in its reference to the impact of these differences:

> The differences in the laws governing the liability of manufacturer and the dealer also adversely affect competition within the common market by imposing unequal burdens on the industry and trade of certain member states in comparison with competitions in other member states. These same differences also adversely affect the unimpeded movement of goods across frontiers within the common market.[184]

The Draft Directive was proposed by the Commission which is the principal executive body of the European Economic Community (EEC). The Commission began consideration of a uniform product liability policy in 1972. Attempts in this direction were culminated when the Commission approved a proposed Directive dealing with this matter in July 23, 1976. The Draft Directive Concerning the Approximation of the Laws of Member States Relating to Product Liability was submitted to the Council, the principal legislative body of the EEC on September 9, 1976. The proposed Directive is being examined at present by different working committees within the EEC and there is an optimistic forecast for its adoption.[185] If adopted the provisions of this Directive

will constitute a uniform legal regime of product liability in the nine member states of the community. On the other hand, this Convention which accepts the system of strict liability will bring the law of product liability in those member states to a great degree of similarity with that of the United States.

Both the Strasbourg Convention and the EEC Directive on product liability adopt a system of strict liability. However, certain important differences exist between these two instruments. These differences are summarized in the following:

1. The scope of the Strasbourg Convention is restricted to liability for damages resulting from personal injury and death, while the EEC Draft scope of application extends also to property damage.

2. A product is "deemed to be defective if it is unfit for the use for which it is intended by the producer."[186] This concept seems different from that provided by the Strasbourg Convention in which "defect" is deemed to exist when the product does not provide the safety which a person is entitled to expect.[187]

3. Period of limitation for bringing claims of damage against the manufacturers is made according to the Strasbourg Convention three years from the day the claimant becomes aware of the damage.[188] The EEC Draft does not prescribe a time limit but states that such claims must be brought within a reasonable time.

4. Lastly, the EEC Directive contains a financial limitation scheme for the manufacturer's liability arising under its provisions.[189] This limitation has been justified by the Explanatory Notes which accompanied the Draft Directive simply on the basis that payment of damages should be limited in order that it may be made calculable and thus insurable.[190]

4. The 1955 Convention on the Law Applicable to International Sales of Corporeal Objects

This convention provides for a theme of choice of law in cases involving international sales of corporeal movable objects. It is designed to cover sales which include documentary and contracts for the delivery of corporeal movable objects to be manufactured or produced, when the party who has agreed to deliver must supply the raw materials necessary for manufacture or production.[191] This Convention which was adopted at the Hague in 1955, does not deal directly with questions of products liability as those instruments briefed earlier. However, provisions of this Convention may be invoked in product liability questions by implication, especially in the area of conflict of laws. This Convention is discussed further in the chapter on conflict of laws.[192]

D. Conclusion

The preceding analysis shows that a substantive products liability law has emerged and developed to varying degrees in almost all of the industrial countries of the world. Its most remarkable progress, however, has taken place in the United States. The trends of the development of this field

of law especially in the last few decades reflect a move from the traditional concepts of contract and torts to the modern doctrine of strict liability. The strict liability doctrine which is originally a product of the American courts is finding better acceptance and recognition by other legal systems especially on the European Continent. This is reflected in the solutions adopted by the few conventions which have emerged on this subject in the European Continent.

There is a similarity in the conceptual basis of products liability law in both the civil and the common law even though the methodology and approach may be different. Under both systems, the law of products liability is based upon concepts and doctrines borrowed from the law of contract and torts. However, the civil law countries seem to put a great deal of emphasis on the distinction as to whether a product liability action is based on tort or on contract. This distinction is of less importance in the common law countries especially in the United States. Judicial ingenuity and creativeness has played an almost exclusive role in the development and advancement of this field of law in both civil and common law countries. The existing products liability law is an excellent example of how modern law can be derived and developed from stiff codes and doctrines thereby meeting the needs of this age of technology.

FOOTNOTES
(Chapter Two)

[1]For a detailed treatment of the subject of product liability see H. Duintjer Tebbens, International Product Liability: A Study of Comparative and International Legal Aspects of Product Liability (1979); A.S. Weinstein, Product Liability: A study of the Interaction of Law and Technology (1977); K. Ross & M.J. Foley, Product Liability of the Manufacturers: Prevention and Defense (1979); C.J. Miller & P.A. Lovell, Product Liability (1977). Karl-Heinz Bockstiegel, Product Liability in Air and Space Transportation (1978); R.J. Phelan, Product Liability Update, 1980 (1980); L.R. Frumer & M.I. Friedman, Product Liability (1960); R.D. Hurch & H.J. Bailey, American Law of Product Liability (1974); S. Waddams, Product Liability (1974); W. Kimble & R.O. Lesher, Products Liability (1979).

[2]MacPherson v. Buick Motor Co., 217 N.Y. 382; 111 N.E. 1050 (1916).

[3]W. Prosser, Law of Torts 4th ed. (1971) Chap. 17 at 641.

[4]Ibid.

[5]F. A. Orban, Product Liability: A Comparative Legal Restatement - Foreign National Law and the EEC Directive (1978) 8 GAJ. Int'l & Comp. L. at 342.

[6]Supra, note 3, at 650.

[7]Ibid.

[8]Supra, note 5, at 344-345.

[9]W. Prosser, The Fall of the Citadel (Strict Liability to the Consumer) (1966) 50 Minn. L. Rev. 791.

[10]See Duintjer Tebbens, Supra, note 1 at 83. See also the section of this chapter which deals with product liability in France.

[11]See Duintjer Tebbens, Supra, note 1, at 98; See also the section of this chapter which deals with product liability in the Netherlands.

[12]See Duintjer Tebbens, Supra, note 1, at 66; see also

the section of this chapter which deals with product liability in Germany.

[13]See generally Supra, note 5.

[14]For a Comprehensive treatment of product liability law and its development in the United Kingdom see Miller & Lovell, Product Liability (1977); See also Fleming, The Law of Torts (1977) at pp. 498-515. For a short overview of product liability in England see A. Ross in the Comparative Survey of Product Liability law as applicable to Motor Vehicles (1968) 2 Int'l L. 98, 116-122.

[15]The Sales Act of 1893, 56 & 57 Vict. C. 71.

[16]For comments on this Act see Yates, The Supply of Goods (Implied Terms) Act 1973, (1973), J. Bus. L. 135; see C. Carr, "Statutes" (1973) 36 Mod. L. Rev. 518; see also Hall, International Sales and Supply of Goods (Implied Terms) Act 1973, (1973) 22 Int'l L. & Comp. L. Q 740.

[17]Ibid.

[18]Ibid.

[19]Miller & Lovell, Supra, note 14 at 2-4.

[20]Supra, note 16.

[21]Supply of Goods (Implied Terms) Act 1973 Sec. 14.

[22]Unfair Contract Terms Act 1977, Sec. 50.

[23]Ibid.

[24]Supply of Goods (Implied Terms Act 1973 Sec. 14.

[25]Supra, note 5 at 359.

[26]For development of the law of negligence in regard to product liability see Fleming, Supra, note 14 at 502-503.

[27]Winterbottom v. Wright, 10 M & W 109, 11 L. J. Ex. 415 (1842).

[28]271 N.Y. 382, 111 N.E. 1050 (1916).

[29]Donoghue v. Stevenson (1932) A.C. 562.

[30]Ibid., at 599.

[31]Ibid.

[32]271 N.Y. 382, 111 N.E. 1050 (1916).

[33](1936) A.C. 85.

[34]For more discussion about this case see Winfield and Jolowicz on Torts (1979) at 237.

[35]A. Paines in Association Europeenne de Etudes Juridiques Et Fiscales, Product Liability in Europe (1975) at 101.

[36]The Law Commission and the Scotish Law Commission, Liability for Defective Products, CMND. 6831 (1977).

[37]For a comprehensive treatment of Product Liability Law in Austria see Fleming, The Law of Torts, 5th ed. (1977), ch. 23. For treatment of certain aspects of this subject see: Fricke, Manufacturer's Liability for Breach of Warranty (1959) 33 A.L.J. 35; D. Harland, Product Liability: The Proposed Commonwealth Legislation, 52 L. Ins. J. (1978) at 231; K. Sutton, Let the Seller Beware - Recent Developments in Australia (1978) 10 Ottawa L. Rev. at 35. Harland, Consumer Protection to Australia (1976) 40 Rabels Zeitschrift 631 at 641-650; see also Stoljar, The International Harvester Case: A Manufacturer's Liability for Defective Chattels (1959) 32 A. L. J. 307.

[38]For product liability based on negligence theory see Fleming, The Law of Torts, 5th ed. (1977) at 502.

[39]For an extensive treatment of product liability based on contractual relationship and the development of legislative background of this matter in Australia see K. C. Sutton, Let the Seller Beware - The Recent Developments in Australia (1978) 10 Ottawa L. Rev. at 35.

[40]Coote, Discharge for Breach and Exception Clauses Since Harbutt's "Plastiline" (1977) 40 M. L. R. 31; see also Fleming, Supra, note 38, at 498.

[41]For a discussion of this Act see Golding and Richardson, Liability of Manufacturers for Defective Goods 51 A. L. J. 127 at pp. 142-144. See also Supra, note 39.

[42]Manufacturers Warranties Act - Sec. 4(1)(2)(3).

[43]D. J. Harland, Product Liability: The Proposed Commonwealth Legislation, 52 L. Inst. J. (1978) at 236.

[44]Law Reform (Manufacturers Warranties) Ordinance, 1977.

[45]This recourse is based on the New South Wales Sale of Goods Act, 1923, sections 62-64 and also on Hire-Purchase Act (1960). Section 5.

[46]Ibid.

[47]Trade Practices Act 1974, Sections 68-73.

[48]For a detailed treatment of the Trade Practices Act, 1974, see K. C. Sutton, Let the Seller Beware - Recent Developments in Australia (1978) 10 Ottawa L. Rev. 35 at p 48-75.

[49]Trade Practices Act 1974, Sections 69-73.

[50]See D. J. Harland, Product Liability: The Proposed Commonwealth Legislation (1978) 52 L. Inst. J. 231 at p. 238-239.

[51]Ibid.

[52]For a comprehensive treatment of the subject of product liability law in Canada see S. M. Waddams, Product Liability (1974).

[53]See for example Zeppa v. Caca-Cola Ltd., (1955) 5 DLR 187 (OntCA) (this case is cited by Duintjer Tebbens, Supra, note 1 at p. 62.)

[54]For a comparative analysis of the Canadian product liability law see Duintjer Tebbens, Supra, note 1 at 58.

[55](1979) 1.S.C.R. 790, 25 N.R. 271.

[56]Manitoba amended its Consumer Protection Act in 1970. Ontario and British Columbia did the same in 1971, Nova Scotia followed in 1975 and Saskatchewan enacted The Consumer Product Warranties Act in 1977, New Brunswick passed the New Brunswick Consumer Product and Warranty Act (1978).

[57]Studies have been initiated in the Province of Ontario in 1970 by the Ontario Law Reform Commission and released its report in 1972.

[58]For discussion of statutes of different provinces see S. M. Waddam, Product Liability (1974) at pp. 161-171. See also L. J. Romero, The Consumer Products Warranties Act (of Saskatchewan and comparisons with other statutes) (1978) 43 Saskatchewan L. Rev. at 81.

[59]Ontario Law Reform Commission's Report on Consumer Warranties and Guarantees in Sale of Goods. Department of Justice, Toronto, 1972.

[60]Ibid., at p. 65-66.

[61]For a comprehensive treatment of the subject of product liability in the United States see U.S. Department

of Commerce, Interagency Task Force, On Product Liability, Final Report (1977). See also Kimble & Lesher, Product Liability (1979); see also other material cited in Supra, note 1.

[62]See Prosser, Supra, note 3, Chap. 17 at 641.

[63]Ibid., at p. 641-42.

[64]See for example Thomas v. Winchester G N.Y. 397 (1852), the case involved a poison.

[65]217 N.Y. 382, 111 N.E. 1050 (1916).

[66]Ibid.

[67]See generally Prosser, Supra, note 3.

[68]See Kimble & Lesher, Supra, note 62 at p. 8-9.

[69]See for example Klein v. Duchess Sandwich Co., 14 Cal. 2d. 272, 93 P. 3d 799 (1939). See also Id. at 10.

[70]Henningsen v. Bloomfield Motors, 32 N.J. 358, 161 A. 2d 69 (1960).

[71]Ibid.

[72]Prosser, Supra, note 3 at p. 642-43.

[73]Greenman v. Yuba Power Products, Inc., 59 Cal. 2d 57, 377 P. 2d 897 (1963).

[74]Ibid.

[75]See the Interagency Task Force On Product Liability, Supra, note 6, Vol. II, p. 3-5.

[76]Ibid.

[77]Ibid.

[78]Ibid.

[79]See the Interagency Task Force on Product Liability, Supra, note 61, Vol - V-21.

[80]See the Wall Street Journal, October 27, 1976 at 4, Col. 2. See also "The Devil in Product Liability" The Business Week, Feb. 12, 1979.

[81]See the Interagency Task Force on Product Liability, Supra, note 61, Vol - V-21.

[82]House Subcommittee on Capital Investment and Business Opportunities, Report on Product Liability Insurance, (1978) at p. 72.

[83]Ibid.

[84]The U.S. Administration position was made in a paper published in the Federal Register on April 6, 1978 (43 FR 14612, 1978).

[85]The Department of Commerce Draft Uniform Product Liability Law was published in the Federal Register, Vol. 44, No. 9 Friday, January 12, 1979.

[86]See the Business Week, Feb. 12, 1979.

[87]French Civil Code Articles 1641-49 and 1382-84.

[88]For a detailed treatment of the subject of product liability in France see Duintjer Tebbens, Supra, note 1 at 83; Ghestin, L'application des regles specifiques de la vente a la responsibilite de fabricants et distributeurs de produits en droit francais, in la Responsibilite Des Fabricants Et Distributeurs 65 (Colloque, Universite de Paris 1 1975); See Freed in the Comparative Survey of Product Liability as Applied to Motor Vehicles (1968) 2 Int'l L. at 123; Sziadits, Comparative Aspects of Product Liability (1967) 16 Buff. L. Rev. 243; for a background on the liability theory in France see generally Von Mehren & Gordley, The Civil Law System at 590, 783; see Stark, The Foundation of the Delictual Liability in Contemporary French Law (1974) 48 Tulane L. Rev. 1943; see N.W. Palmier, Characterization of Concurrent and Alternative Claims in the Borderline of Contract and Torts (1979) at 208-219 (unpublished doctoral thesis McGill University).

[89]See Duintjer Tebbens, Supra, note 1 at 93.

[90]Ibid., at 93-94.

[91]Ibid., at 94.

[92]The French Civil Code Articles 1625, 1641-49.

[93]See Duintjer Tebbens, Supra, note 1 at 85.

[94]Sziadits, Supra, note 87, at 246.

[95]Duintjer Tebbens, Supra, note 1, at 85.

[96]Ibid.

[97]Ibid.

[98]Ibid., at 87.

[99]For a brief overview of the nature of tort remedies in product liability in France see Freed, Supra, note 87, at 127-30, See also Stark, Supra, note 87 at 1943.

[100]Duintjer Tebbens, Supra, note 1, at 91.

[101]Von Mehren & Gordley, Supra, note 87, at p. 674-5; See also Duintjer Tebbens, Supra, note 87 at p. 93; See also C. Leyssac, in the Association Europeenne de Etudes Jurisdiques Et Fiscales, Product Liability in Europe (1975) at p. 63.

[102]Cour de Cassation, 2d Civ. ch., 5 June 1971, (1971) Bulletin des Arrets de la Cour de Cassation.11.No.204 (this case is cited and briefed in Von Mehren and Gordley, Supra, note 87, at p. 676-77).

[103]Ibid., at p. 676.

[104]For general overview of product liability law in Germany see Rosener, and John, In Association Europeenne, de Etudes Jurisdiques Et Fiscales, Product Liability in Europe (1975) at 69. See also Orban in, Supra, note 5. See also P. Prag, Comparative Study of the Concept and Development of Product Liability in the U.S.A., Germany and Scandinavia. 1 Leg. Issues of Eurp. Integration (1975) 67; See also Duintjer Tebbens, Supra, note 1, at 66.

[105]See generally R. H. Mankiewicz, Product Liability - A Judicial Breakthrough in West Germany (1970) 19 Int'l & Comp. L. Q. at 99. Mr. Mankiewicz offers detailed analysis to that case.

[106]Published in the Federal Law Gazette 1, 2445 (1976).

[107]German Civil Code Article 462.

[108]German Civil Code Article 463.

[109]See Rosener and John, Supra note 104 at 71.

[110]Judgment of Nov. 26, 1968 (1969) NJW 269. For a detailed analysis of this case see Mankiewicz, Supra, note 105.

[111]Cited by Duintjer Tebbens, Supra, note 1, at 77.

[112]See generally Mankiewicz, Supra, note 105, and also Duintjer Tebbens, Supra, note 1 at 73.

[113]See M. Reinsma, Product Liability Under Dutch Law (1975) VIII CILSA at 71.

[114]See F. J. Heemstra, in the Comparative Survey of Product Liability Law as Applied to Motor Vehicles, 2 Int'l L. (1967-68) 141.

[115]Dutch Civil Code 1540.

[116]Dutch Civil Code 1544.

[117]H. Beekhuis, in Association Europeenne de Etudes Jurisdiques Et Fiscales, Product Liability in Europe (1975) 91, 92.

[118]HR 31-1 - 1919, N.J. 161.

[119]HR 31-1 - 1919, N.J. 161.

[120]See generally Heemstra, Supra, note 114, at 73-78. See also Duintjer Tebbens, Supra, note 1, at 101.

[121]App. Amsterdam, 27 June 1957, (1958) N.J. 104.

[122]HR 3 March 1966, NJ 279.

[123]HR 2 February 1973, NJ 315.

[124]Duintjer Tebbens, Supra, note 1, at p. 104.

[125]Ibid., at 104.

[126]Ibid., at 106-7.

[127]For further discussion about product liability in Italy, see G. M. Ughi, and G. Delbue, in The Association Europeenne de Etudes Jurisdiques Et Fiscales, Product Liability in Europe (1975) at p. 83. See also Gori-Moutanetti and Botwinik in the Comparative Survey of Product Liability Law as Applied to Motor Vehicles 2 Int'l L. (1967-68) at 133. See also Orban, Supra, note 5 at 355.

[128]Italian Civil Code Article 1490.

[129]Italian Civil Code Article 1492.

[130]Italian Civil Code Article 1494.

[131]Italian Civil Code Article 1495.

[132]See G. M. Ughi, and G. Delblue, Supra, note 127 at 84.

[133]See Orban, Supra, note 5 at 355.

[134]Italian Civil Code Article 2043.

[135]See G. M. Ughi, and G. Delblue, Supra, note 127.

[136]Judgment by the lower court of Turin (Alini v. Fiat, in Foro Italiano 1960, 1, 1027). This judgment was reversed by the Court of Appeals of Turin.

[137]Ibid.

[138]Swiss Code of Obligations Art. 97.

[139]Swiss Code of Obligations Art. 100.

[140]Swiss Code of Obligations Art. 100.

[141]Swiss Code of Obligations Art. 205 and 206.

[142]Swiss Code of Obligations Art. 200.

[143]Swiss Code of Obligations Art. 42.

[144]Swiss Code of Obligations Art. 45 and 46.

[145]Swiss Code of Obligations Art. 44.

[146]Consumer Protection Act, S.Q. 1978.

[147](1979) 1.S.C.R. 790, 25 N.R. 271.

[148]For a discussion of product liability Quebec see Heller, Manufacturer's Liability for Defective Products (1969) 15 McGill L. J. 142; Baudouin, La responsabilite civile fabricant en droit Quebecois (1977) 8 R.D.U.S. 1; Cote, La responsabilite du fabricant vendeur non-immediat en droit Quebecois, (1975) 35 R. Du B. 3; Cayne, The buyers Remedy in Damages for Latent Defects in the Province of Quebec (1976) 54 Can. Bar Rev. 106; See also Schwartz, the Manufacturer's Liability to the Purchaser of a "Lemon": A Review of the Situation in Canada After the General Motors Products of Canada Ltd., v. Kravitz (1979) Ottawa L. Rev. 583.

[149]Quebec Civil Code Article 1527.

[150]See Cayne, Supra, note 148 at p. 111-116.

[151]See generally R. A. Field, A Common Law Look at the Law of Latent Defects in Quebec and the Proposals for its Renorm (1978) 2 Can. Bus. L. J. 209, 219; See also Cayne, Supra, note 148 at 114-115, 118-120, 121-123.

[152](1979) 1.S.C.R. 790, 25 N.R. 271.

[153]Ibid.

[154]Ibid., at 813, 25 N.R. at 293.

[155]Ibid., at 813-814, 25 N.R. at 293.

[156](1967) S.C.R. 469, (1967), 62 D.L.R. (2d) 285.

[157]Ibid., at p. 472; (1967), 62 D.L.R. (2d) 285.

[158]Consumer Protection Act, S.Q. 1978, C.9 Sec. 53.

[159]See Orban, Supra, note 5 at 370.

[160]See J. Dake, Product Liability in the Soviet Union, (1977) 11 Int'l L. p. 185-189.

[161]Civil Code of the RSFSR Section 246.

[162]Civil Code of the RSFSR Section 445.

[163]For further treatment of the subject of product liability in the Soviet Union see Shapiro, in the Comparative Survey of Product Liability Law as Applied to Motor Vehicles. 2 Int'l L. (1967068).

[164]See for example: H. Itahura, Criminal Liability of Manufacturers of Defective Autos (1969), Jurisuto, 432:50. S. Michida, Inference of Maker's Liability. Hogahu Ronso (Kyoto L. Rev.) 1969. A. Shodu, Consumer Protection Law (1968), Jurisuto, 406:115. N. Takenchi, Warranty, Defective Merchandise, and the Consumer. Jurisuto, 494:23 (1971). Note, Critical Study of the Consumer Protection Law. Jurisuto, 475:47 (1971).

[165]See for example judgment of June 20, 1975, Kanto Kogyo v. Diatakyo Realty Co., Ltd., Tokyo High Ct. Tokyo (1975). Hanta 287. See also judgment of Nov. 30, 1973, Yoshie v. Toyota Motor Co., Ltd. Kyoto Dist. Ct., Kyoto (1973) 738 HANREI JIHO 89.

[166]Japan Civil Code Article 566.

[167]Ibid.

[168]Japan Civil Code Article 710.

[169]Japan Civil Code Article 724.

[170]General Assembly Resolution 3108 (XXVIII) December 12, 1973. Official Records of the General Assembly, 28th Session, Supplement No. 17 (A/9017).

[171]Ibid.

[172]The United Nations Commission on International Trade Law produced a study entitled "Liability for Damage Caused by Products Intended for or Involved in International Trade".

This document is dated March 6, 1975 and cited A.CN-9/103; See also Report of the Secretary-General, United Nations Commission On International Trade Law, Tenth Session, 23 May 1977 UN Doc. No. A/CN-9/133.

[173]For discussion of this convention see Reese, The Hague Convention on the Law Applicable to Product Liability (1974) 9 Int'l Law 606. See also Saunders, An Innovative Approach to Product Liability, (1972) 4 Law and Policy in International Business 187.

[174]See Duintjer Tebbens, Supra, note 1, at 334.

[175]Chap. 6 - 3(b).

[176]For a detailed discussion about the background of this Convention see Lorenz, Some Comparative Aspects of the European Unification of the Law of Product Liability (1975) 60 Cornell L. Rev. 1005. See also Fleming, Draft Convention on Products Liability Council of Europe (1975) 23 Am. J. Comp. L. 729. The text of the Convention reprinted in 16 Int'l Legal Materials 7 (1977).

[177]The history of the drafting of this convention is included in the Draft Explanatory Report issued with the text of the draft convention.

[178]The Draft Explanatory Report at point 4.

[179]The Strasbourg Convention Art. 2(c).

[180]Strasbourg Convention Art. 3.

[181]The Strasbourg Convention Arts. 4 and 5.

[182]Ibid.

[183]See the Memorandum on the Approximation of the laws of member states relating to product liability. Document X1/332/74 - E. Working group on product liability.

[184]Id. Document X1/332/74 - E Sect. II par. 1 and 2.

[185]See Orban, Supra, note 5 at 373.

[186]The EEC Draft Directive Article 3.

[187]The Strasbourg Convention Article 2(c).

[188]The Strasbourg Convention Article 6.

[189]The EEC Draft Directive Article 5.

[190]The Explanatory Notes which accompanied the EEC Draft: comment on Article 5.

[191]J. G. Castel, Canadian Conflict of Laws (1977) Vol-II at 579.

[192]See generally Chapter Six of this study: Conflict of Laws Sec. 3(c) starting on page 264.

CHAPTER THREE

CONTRACTUAL LIABILITY OF AIRCRAFT MANUFACTURERS

A. General Remarks

The preceeding chapter has dealt with the subject of manufacturers liability in general and presented a brief assessment of the law as it developed on both the national and the international level. It has been noted that the law in this field is most advanced in the United States of America.

This study will turn now to deal specifically with the subject of aircraft manufacturers liability resulting from defective aviation products. Since the overwhelming majority of litigation, involving aircraft manufacturers' liability for aviation products, has taken place in the United States, emphasis will be placed mainly on the law of that country.

Aircraft manufacturer's liability in the United States may be based on different theories. Liability may rise on breach of contractual terms of express or implied warranties or it may be premised on tort; namely, negligence or strict liability.[1] Each of these theories has distinct elements and conditions which must be met in order for liability to be found. Each of these theories will be treated in detail in separate chapters beginning with the breach of contractual terms of express or implied warranties.

B. Bases of Contractual Liability: The Express and Implied Warranties

The manufacturer of an aircraft or component part, who sells his product in the market, is like any other merchant subject to the obligations resulting from the sale of that product.[2] Such obligations may be created by express terms of the sale contract or by implied conditions imposed by the law.[3] An aircraft sale contract is basically no different from the sale contract of any other complex product.[4] But it is unique in the degree of technicalities contained in its provisions, the sums of money it deals with and the extent of professional sophistication of the parties involved in its negotiation and execution.

Pursuant to an aircraft sale, a manufacturer's liability may arise upon the breach of express or implied terms of warranties relating to the product sold. In its broadest sense, a warranty is the assumption of responsibility, by the seller, for the quality, character or suitability of the product involved.[5] The seller may assume such responsibility by the express terms of the sale agreement. In these circumstances an express warranty is created. On the other hand, there are implied warranties which are imposed by operation of law, even though the seller makes no mention or statement to that effect.

The concept of warranty is not based on the fault or the failure of the seller to exercise reasonable care.[6] Warranty is essentially contractual and liability based on

it follows when the product sold fails to measure up to the express or implied warranties provided by the seller. This characterization implies a significant rule that plaintiffs pursuing claims under this theory do not have to prove negligence on the part of the seller manufacturer.[7] Burden of proof is often a difficult task since it deals with highly complex products; the aircraft or one of its component parts.[8]

1. Express Warranty

An express warranty generally comes into being when a seller makes a positive statement concerning the product sold. Such a statement may be broad in its scope, including the quality, character, suitability and ownership of the product involved. It may also deal with one or more specific characteristics of that product.[9]

The Uniform Commercial Code, now adopted by all jurisdictions of the United States except the State of Louisiana,[10] prescribes the ways by which an express warranty may be created. Section 2-313 of that Code provides that express warranty may be created by one of the following:

> (a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.
> (b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.
> (c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.[11]

The same section of the Code further provides that it is not necessary for the creation of an express warranty that the seller use formal words such as "warranty" or "guarantee". Equally it is not necessary for the seller to have a specific intention to make a warranty.[12] However, the Code excludes from this category statements which merely affirm the "value of the goods" or those "purporting to be merely the sellers opinion or commendation of the goods."[13]

Express warranties in the sale of aircraft are usually set forth in detail in the sale agreement. In the case of a sale of large aircraft, the warranty provisions are carefully and extensively negotiated between the parties.[14] Warranty provisions which are usually contained in aircraft sale agreements cover the following matters:[15]

1. Specific warranties of conformance to the Model Specification and against defects in title, design, workmanship, material and installation.
2. The time period during which each warranty is in effect.
3. Procedures for processing warranty claims.
4. Conditions under which buyer may perform warranty repairs or rework at the expense of the seller.
5. Obligation of the seller to correct any defect covered by warranty.
6. Limitation of seller's liability with respect to any breach of warranty, particularly as it relates to consequential damages.

Although an express warranty is usually specifically spelled out, difficulty sometimes arises as to the characterization of statements, information, advertisements and descriptions provided by the seller and related to the product sold. Difficulty arises largely in two contexts, "puffing" cases and "description" cases.[16] The law recognizes that some seller's statements are only "puffing" and not express warranties.[17] Whether a statement or assertion is considered a puff is, of course, a matter which depends on the factual situation and circumstances involved. And its determination should be the subject of analysis that focuses on the reasonableness of the plaintiff's reliance, the seriousness of the damage, the words and symbols used and other factors.[18] Thus, in litigation involving an aircraft, the Georgia Court of Appeals found in Hill Aircraft and Leasing Corp. v. Simon[19] that the description of aircraft as "Aero Commander, N-2677B, Number 135, FAA, Flyable" was an express warranty. This description was included in a notation made on a checque used as a partial payment to the bargain. The court ruled that this statement was ample to support a determination that the description of the airplane was an essential basis of the bargain and that the plaintiff purchased the plane as one expressly warranted to be flyable, capable of full certification under the Federal Aviation Regulation.[20]

Statements contained in advertisement of products have been a matter of concern both for the courts and the commentators. Some courts ruled that in determining whether

advertising language gives rise to an express warranty, the language must be construed liberally in favor of the buyer.[21] In the case of aviation products, descriptions and statements contained in the manufacturer's advertisement is important. According to Kreindler:

> It would seem that clearly included within the scope of the term 'express warranty' would be an affirmation contained in an advertisement, or brochure designed to induce someone to buy a particular airplane or component part. These advertisements invariably refer to the safe qualities of the particular aircraft or part, and, sometimes, they go into considerable details on the particular characteristics claimed by the manufacturer.[22]

Others who discussed the subject of express warranties arising from advertisements and its implications in aviation product liability litigation, point out the seriousness of this question, particularly the advertising language relating to safety.[23] Several cases have been cited to support the contention that advertisements of the type referred to above, create express warranties and are not mere "puffing" or "opinion".[24]

2. Implied Warranties

The technical complexities of products put on the market and the modern methods of advertising and selling give buyers little, if any, opportunity to examine the quality of those products. The seller, especially, when he is the manufacturer[25] of the product is in a better position to make thorough examinations and tests to determine the quality and fitness of these products to their anticipated use. Therefore, the law imposes certain implied

warranties on the sale of goods whenever the seller is a merchant with respect to goods of that kind.[26]

There are two implied warranties recognized under the Uniform Commercial Code; implied warranty of merchantability[27] and implied warranty of fitness for a particular purpose.[28] An implied warranty that the product sold is merchantable is deemed to be made by every seller who is a merchant dealing with that type of product. In order for goods to be merchantable, they must be at least such as:

> (a) pass without objection in the trade under the contract description; and
> (b) in the case of fungible goods, are of fair average quality within the description; and
> (c) are fit for the ordinary purposes for which such goods are used; and
> (d) run, within the variations permitted by the agreement, of even kind, quality and quantity within each unit and among all units involved; and
> (e) are adequately contained, packaged, and labeled as the agreement may require; and
> (f) conform to the promises or affirmations of fact made on the container or label if any.[29]

On the other hand, implied warranty of fitness for a particular purpose, accompanies a sale whenever the seller had reason to know the particular purpose for which the buyer needs the goods and that the buyer relied on the seller's skill and judgement in selecting those goods.[30] The difference between "particular purpose" and the "ordinary purpose" which is an element of the implied warranty of merchantability, has been described in the following comment by the drafter of the Code.

> A 'particular purpose' differs from the ordinary purpose for which the goods are used in that it envisages a specific use by the buyer which is peculiar to the nature of his business whereas the ordinary purposes for which goods are used

> are those envisaged in the concept of merchantability and go to uses which are customarily made of the goods in question.[31]

Breach of any of these implied warranties may provide the basis for actions against the seller of the products. In practice, a great number of product liability suits have been brought on the theory of breach of implied warranty. Similarly, aviation litigation involving product liability claims against aircraft manufacturers have been pursued on the basis of this theory. The following two cases are illustrative: Goldberg v. Kollsman Instrument Corp.,[32] and Krause v. Sud-Aviation Societe National.[33]

C. Third Party Beneficiaries of Warranties and the Privity Requirement

Privity of contract is a legal requirement which precludes one from suing another unless he is in direct relationship with the defendant.[34] Proceeding from this premise, the courts have applied the rule to warranty claims and ruled that one who is not a party to a contract has no right to enforce the contract or any warranty established under it.[35] This means that consumers or users who have been injured by the consumption or the use of a defective product do not have a cause of action for breach of warranty, except against the immediate seller from whom they bought those products. Products usually reach consumers and users not by means of direct transaction with the manufacturers but rather through intermediate sellers such as agents, dealers or vendors. Consumers and users of products acquired

in that manner cannot therefore maintain an action against a manufacturer who's defective product injures them simply for reasons of lack of privity:

> Although warranty is in many respects an ideal theory for imposing product liability, warranty actions were traditionally difficult to establish because of the privity requirement. A warranty is, after all, a contractual covenant; its breach is a breach of contract, an action which is available, by traditional rules, only to a contracting party or one claiming through or under such a party. Privity of contract, then, was a condition of the cause of action.[36]

During the last two decades this traditional adherence to the requirement of privity has been either overlooked or eroded in the area of product liability. The American courts found it necessary to overlook this traditional requirement to help consumers and users of defective products reach the manufacturer directly. Accordingly, American courts allowed consumers to establish claims based on implied warranty, even though they are not in privity of contract with the manufacturers. This practice by the American courts to overlook the privity requirement (both horizontal and vertical) has been reinforced by legislation in some jurisdictions as will be seen later.[37] Horizontal privity involves the issue of who, in addition to the original buyer, may sue for breach of warranty.[38] Vertical privity deals with the problem of which persons in the chain of distribution, in addition to the ultimate seller, may be sued.[39] The turning point in the expansion process and the abandonment of the privity requirement came about in the famous case of Henningsen v. Bloomfield Motors, Inc.[40]

In Henningsen v. Bloomfield Motors, Inc.[41] an action was brought for breach of warranty by Claus and Helen Henningsen against Chrysler Corporation and Bloomfield Motors. The trial court awarded damages to the Henningsens. The ruling was affirmed on appeal.

Mr. Henningsen purchased a new 1955 Plymouth car from Bloomfield Motors and gave it to his wife Helen. When Mr. Henningsen purchased the car, he signed a purchase order which contained an express warranty clause against defects in material and workmanship. The same clause also limited Chrysler's obligation to replacing the defective parts. Shortly after the purchase of the car and while Mrs. Henningsen was driving it, she heard a cracking noise in the front of the car. Suddenly, the steering wheel became inoperative and the car veered sharply to the right crashing into a brick wall. The trial court awarded a judgement against Chrysler and Bloomfield Motors. The defendants appealed that judgement, arguing, among other things, that no implied warranty ran from Chrysler, the manufacturer of the car, to the Henningsens and that Helen Henningsen's lack of privity with the defendants barred a breach of warranty action against them. The court dismissed these arguments and said, in response to the defense of lack of privity with Mrs. Henningsen:

> In the present matter, the basic contractual relationship is between Claus Henningsen, Chrysler, and Bloomfield Motors, Inc. The precise issue presented is whether Mrs. Henningsen, who is not a party to their respective warranties, may claim under them. We are convinced that the cause of justice in this area of the law can be served only by recognizing that she is such a person who, in the reasonable contemplation of the parties to

> the warranty, might be expected to become a user of the automobile. Accordingly, her lack of privity does not stand in the way of prosecution of the injury suit against the defendant Chrysler.
>
> It is our opinion that an implied warranty of merchantability chargeable to either an automobile manufacturer or a dealer extends to the purchaser of the car, members of his family, and to other persons occupying or using it with his consent. It would be wholly opposed to reality to say that use by such persons is not within the anticipation of parties to such a warranty of reasonable suitability of an automobile for ordinary highway operation. Those persons must be considered within the distributive chain.[42]

During the period this famous case was rendered and subsequently adopted by many jurisdictions across the country, the draft of the Uniform Commercial Code was completed in 1962 and eventually adopted by many states. The Code contains a section which expands the limits of privity by allowing members of the buyers family, household and guests who are injured to sue, for breach of warranty.[43] Although this section of the Code relaxed the privity requirement as to certain parties, many states sought a further relaxation or even elimination of privity requirements. As a result, some states simply chose either to omit that section of the Code, or amended it to adopt more liberal terms. In order to prevent further proliferation of separate different versions of that section of the Code, the Permanent Editorial Board for the Uniform Commercial Code redrafted that section (2-318) and offered the following three alternative versions:

Alternative A

> A seller's warranty whether express or implied extends to any natural person who is in the family or household of his buyer or who is a guest in his home if it is reasonable to expect that such person may use, consume or be affected by the goods and who is injured in person by breach of the warranty. A seller may not exclude or limit the operation of this section.

Alternative B

> A seller's warranty whether express or implied extends to any natural person who may reasonably be expected to use consume or be affected by the goods and who is injured in person by breach of the warranty. A seller may not exclude or limit the operation of this section.

Alternative C

> A seller's warranty whether express or implied extends to any person who may reasonably be expected to use, consume or be affected by the goods and who is injured by breach of the warranty. A seller may not exclude or limit the operation of this section with respect to injury to the person of an individual to whom the warranty extends.

Alternative A or its equivalent has been enacted in at least thirty states,[44] B or its equivalent in four states[45] and C or its equivalent in eight states.[46] Other states have either enacted specific legislation or simply left the whole issue to the courts.[47]

As to "vertical privity", the Uniform Commercial Code did not take a clear stand on it. The matter was thus left for the courts which in turn did not hesitate to allow actions on implied warranties against manufacturers of the product or component parts. According to one American legal scholar:

> Most of the recent cases have discarded any need for vertical privity. They rest on the premises that it is the manufacturer who, through mass advertising campaigns, has created a market for the goods; that it is in the interest of the manufacturer that the consumer buy and use the goods; and that it is the manufacturer of non-conforming goods who will ultimately bear the loss if multiple law suits are required instead of a direct action. In short, there is no good reason to substitute three law suits to do what can be done in one.[48]

Although the American courts have tended toward allowing actions against the manufacturer, a number of states have enacted laws which permit actions against the manufacturer, distributor, dealer, whole-saler and retailer. For example Section 2-314 of the Maryland Uniform Commercial Code provides the following:

> Notwithstanding any other provision..."seller" shall include the manufacturer, distributor, dealer, wholesaler or other middleman and/or the retailer; and any previous requirement of privity is abolished as between the buyer and any of the aforementioned parties in any action by the buyer.[49]

The relaxation of the privity requirement in both its "vertical" and "horizontal" forms found application in litigation involving aviation products liability. Abandonment of privity in that respect is well expressed in the tendency of the courts to allow passenger's action in implied warranty against the manufacturer of the aircraft or component parts. This has been followed in many aviation cases. The following two cases are representative. The case of Goldberg v. Kollsman Instrument Corp.,[50] involved an action for wrongful death of an airplane passenger brought against the air carrier, the manufacturer of the airplane

and the manufacturer of the altimeter on the airplane. The death occurred as a result of injuries suffered in a crash near LaGuardia Airport in New York when the airplane was on a flight from Chicago to New York. The Court of Appeals of New York held that the airplane manufacturer's implied warranty of fitness for contemplated use ran in favor of airline passengers riding on such planes despite lack of privity of contract.

In Krause v. Sud-Aviation, Soc Nationale,[51] representatives of passengers brought a suit in admiralty against the manufacturer, lessor and lessee of a helicopter which crashed in the Gulf of Mexico killing the pilot and the passengers. The court in discussing the doctrine of implied warranty and its application to passengers said:

> A warranty is in essence a promise. We think it is reasonable for a passenger in an aircraft to proceed on the assumption that the manufacturer has made the plane, if not perfectly, at least in such a way that its ordinary use will not prove harmful. The very fact of manufacturing and offering the airplane for sale implies a promise to this effect made to all persons who might reasonably be expected to ride in it. Accordingly, we hold that respondent SUD impliedly warranted that its helicopter would not prove dangerous or harmful in ordinary use. We further hold that by virtue of the crash on November 30, 1959 that warranty was breached.[52]

In view of the discussed trends of judicial and legislative development in the law of warranty, it seems that injured passengers may no longer be barred from asserting a claim of breach of implied warranty against aircraft manufacturers for reasons of lack of privity. Besides American case law which practically eliminates the

privity requirement, passengers of airplanes fall within categories of consumers or users for whom benefits of implied warranties are extended by incorporation in the statutory law of the Uniform Commercial Code.[53]

D. Contractual Exclusion or Limitation of Aircraft Manufacturer's Liability

The law has generally recognized that sellers may limit or exculpulate their liability by including in sale contracts, disclaimers of warranties arising under the contract.[54] Under the Uniform Commercial Code, parties to a contract have within certain limits, the right by agreement, to relieve the seller from all or part of his liability arising from express or implied warranties. However, provisions of the Code and official comments which accompanied the code sections, reflect a strong determination on the part of its drafters to protect the buyer from the inclusion in sale contracts of clauses modifying or excluding warranties unless the buyer was fully aware of that fact and freely agreed to it.[55] And, in order to achieve this result, the Code sets forth certain guidelines for the modification or exclusion of each type of warranty. Accordingly, when a sales contract contains an express warranty, any other terms of that contract that might tend to limit or negate the warranty are to be construed where possible as consistent with the express warranty; however, to the extent that this construction is unreasonable, then the negation or limitation is not given effect.[56] As to implied warranties of

merchantability and fitness for a particular purpose, the terms of limitation or exclusion must be in writing and must be conspicuous,[57] unless the circumstances indicate that all warranties are excluded by using expressions like "as is", "with all faults" or language which in common understanding calls the buyer's attention to the exclusion of warranties and makes it plain that there are no implied warranties.[58]

It is important to mention, however, that while the parties are given considerable leeway as to conditions and terms to limit or exclude warranties, the Code has established certain limits on the ability of the seller to shield himself from the warranty liability. Thus the Code grants authority to the courts to strike down any unconscionable clauses:

> (1) If the court as a matter of law finds the contract or any clause of the contract to have been unconscionable at the time it was made the court may refuse to enforce the contract, or it may enforce the remainder of the contract without the unconscionable clause, or it may so limit the application of any unconscionable clause as to avoid any unconscionable result.
>
> (2) When it is claimed or appears to the court that the contract or any clause thereof may be unconscionable the parties shall be afforded a reasonable opportunity to present evidence as to its commercial setting, purpose and effect to aid the court in making the determination.[59]

Limitation of consequential damages for injury to the person in the case of consumer goods is prima facie unconscionable and therefore invalid.[60] In addition to these limitations the ability of the seller to shield himself from liability, the courts have held that a disclaimer is invalid when it is against public policy,[61] is contrary to

a statute[62] or when parties have disparate bargaining positions.[63]

Against this legal framework, both aircraft manufacturers and buyers negotiate warranty clauses to be inserted in the aircraft purchase agreement. In practice, the process of negotiating the warranty provisions is difficult and complex, especially when such agreement involves the purchase of passenger aircraft.[64] There are conflicting views on the bargaining power of parties during the negotiation of those terms.[65] However, it seems that the aircraft manufacturer's willingness to extend more favorable terms of warranties for his product is dependent upon the price he can reasonably expect to receive from his customers.[66] Usually, aircraft manufacturers warrant the aircraft against defects in title, design, workmanship, material and installations.[67] On the other hand, however, the manufacturer limits his liability in regard to consequential damages. The following clause or similar ones are usually inserted in aircraft purchase agreements:

> The warranty provided in this Article and the obligations and liabilities of Seller under said warranty are in lieu of, and Buyer hereby waives, all other warranties, guarantees and liabilities, express or implied, with respect to each aircraft delivered hereunder, arising by law or otherwise, (including, without limitation, any obligation or liability of the Seller with respect of fitness, merchantability, loss of use, revenue or profit or consequential damages).[68]

In order to support and clarify the concept that the two parties have fully understood and willingly consented to

the above mentioned terms some aircraft manufacturers add this clause:

> Seller and Buyer agree that this Article has been the subject of discussion and negotiation and is fully understood by the parties; that the price of the airplanes and other mutual agreements of the parties set forth in this Contract are arrived at in consideration of (1) the express warranties of Seller and Buyer's remedies for breach thereof, and (2) the excludion of an waiver by Buyer of all other warranties, express or implied.[69]

Having cited these warranty texts the question of the validity and enforceability of these warranties arises at this point. In particular when an accident occurs due to a defective part in the aircraft resulting in damages to the aircraft only: can the manufacturer take advantage of the liability exculpation and be responsible only for those remedies provided by the warranty which is usually limited to repairing or replacing the defective parts? Can the contractual disclaimers shield the aircraft manufacturer from all the resulting damages to the aircraft and the commercial or economic loss suffered? Are such disclaimers valid under the provisions of the Uniform Commercial Code, or can such a disclaimer preclude a buyer from pursuing an action in negligence or strict liability in search for full recovery of his losses?

This question has been presented to the courts in several aviation cases. It has also received considerable attention on the part of legal scholars and commentators.[70] The following is a brief discussion of that question and its implication under the provisions of the Uniform Commercial

Code, theory of negligence and strict liability in tort.

1. Disclaiming Liability Under the Uniform Commercial Code

The validity of a disclaimer clause under the provisions of the Uniform Commercial Code depends upon its compliance with the specific requirements provided for excluding or modifying the express or implied warranties. The pertinent portion of that Code is Section 2-316 which provides:

> (1) Words or conduct relevant to the creation of an express warranty and words or conduct tending to negate or limit warranty shall be construed wherever reasonable as consistent with each other; but subject to the provisions of this Article on parol or extrinsic evidence (Section 2-202) negation or limitation is inoperative to the extent that such construction is unreasonable.
>
> (2) Subject to subsection (3), to exclude or modify the implied warranty of merchantability or any part of it the language must mention merchantability and in case of a writing must be conspicuous, and to exclude or modify any implied warranty of fitness the exclusion must be by a writing and conspicuous. Language to exclude all implied warranties of fitness is sufficient if it states, for example, that 'there are no warranties which extend beyond the description on the face hereof.'
>
> (3) Notwithstanding subsection (2)
>
> (a) unless the circumstances indicate otherwise, all implied warranties are excluded by expressions like 'as is', 'with all faults' or other language which in common understanding calls the buyer's attention to the exclusion of warranties and makes plain that there is no implied warranty.[71]

The language used in the contractual disclaimers and the extent of its conspicuousness has provided grounds for the courts to strike down some of these disclaimer clauses. In so doing plaintiffs, however, have achieved more success in suits involving disclaimers in consumer products. This

question has come up in several cases involving contractual disclaimers contained in aircraft purchase agreements. Thus, in Holcomb v. Cessna Aircraft Company[72] the court set aside a disclaimer clause on the basis of its inconspicuousness. In this case the purchase agreement of the aircraft contained warranties against defects in the material and workmanship, but the aircraft manufacturer's obligation under that warranty was limited to supplying a part or parts to replace within six months those ones which became defective during normal use. The aircraft purchase agreement further provided:

> This warranty is expressly in lieu of any other warranties, expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose and of any other obligation or liability on the part of Cessna of any nature whatsoever.[73]

The Fifth Circuit of the United States Court of Appeals ruled that since this disclaimer was of the same print size as the rest of the agreement, it did not meet the conspicuousness requirement of the Uniform Commercial Code and subsequently held that implied warranties were not excluded.[74]

Apart from attacking the validity of the disclaimer on the basis of its language and conspicuousness, some legal scholars and commentators in the field of aviation suggest that such disclaimers may be set aside on the basis of other grounds.[75] By limiting the buyers recovery to repairing or replacing parts when the aircraft is either destroyed or substantially damaged as a result of a failing or defective part, it is argued: the warranty fails "of its essential purpose".[76] Under Section 2-719(2) of the

Uniform Commercial Code, when circumstances cause an exclusive or limited remedy to fail of its essential purpose, remedy may be had as provided in that Act. Harkey in presenting this argument writes:

> It seems clear that the 'essential purpose' of the warranty is to protect the purchaser from defects covered under the warranty....when the defect is not reasonably discoverable by the purchaser and it results in damage to or destruction of the aircraft, the remedy is totally inadequate and amounts to no remedy at all. Indeed, there may have been no defective part at all, but only a failure to properly assemble the aircraft, i.e., a defect in workmanship or process of manufacture. Under these circumstances, if the contract is interpreted to limit the liability of the manufacturer to replacement of defective parts, the 'essential purpose' of providing protection to the purchaser from defects has failed. Moreover, if the limited remedy is applied, the purchaser would be deprived of the 'substantial value of the bargain' referred to in the Official Comment because the purchaser may have lost the entire value of the airplane.[77]

Along the same line of reasoning, Professor DeSaussure came to the same conclusion that aircraft manufacturers contractual disclaimers and the limited remedies provided in that respect should give way to the general remedies provided by the law.[78] In his conclusion, Professor DeSaussure states the following:

> When an unsafe aircraft is delivered into his hand in violation of the FAA regulations and his own requirements and this causes injury to or loss of life or extensive property damage, the air carrier has lost the substantial value of his bargain. Here, I submit, the limitation of remedies provided by a contractual disclaimer clause must yield to the general remedy provisions of the Uniform Commercial Code.[79]

Other arguments based on unconscionability[80] and contravention of public policy[81] were also advanced against

the validity of such disclaimers. Although several cases involving other products have been cited,[82] legal research did not uncover any case involving a disclaimer contained in an aircraft sale agreement supporting such arguments.

2. Disclaiming Negligence

Generally, the law does not prohibit a clear and express contract absolving seller from his own negligence.[83] The issue, as to whether an exculpatory clause contained in an aircraft sale agreement may shield an aircraft manufacturer from his own negligence, was considered in a landmark aviation product liability case decided in 1965. In Delta Airlines Inc. v. Douglas Aircraft Company[84] the California District Court of Appeals upheld an exculpatory clause contained in a contract for sale of commercial airplane and providing that the buyer waived all conditions of liabilities arising by law or otherwise, whether or not occasioned by seller's negligence. The court found that the language used in the exculpatory clause was broad and sufficient enough to disclaim liability for negligence of any type.

In this case, Delta Airlines Inc. entered into a contract with the defendant Douglas Aircraft Company to purchase from the latter a new DC-7 airplane at a price of $2,250,000. Delta received the airplane at the manufacturers plant in California and consequently flew the airplane by a Delta crew to Atlanta, Georgia. While the airplane was on a check flight, during an attempted landing, the nose wheel failed to function properly, causing the airplane to veer

off the runway resulting in damages to the aircraft. The accident did not cause any personal damages. Delta brought an action for the costs of repairs and predicated its suit on breach of warranty and also on negligence. The trial court ruled that the exculpatory clause relied on by Douglas was void as against public policy and the jury returned a verdict for Delta in the amount of $233,881.35. Douglas appealed. The Appellate Court reversed the trial court's findings and directed a verdict for Douglas. The court held that the disclaimer clause did embrace all forms of negligence, passive or active. The court said:

> The general rule in California and in other states is that exculpatory or indemnity clauses which attempt to free an actor from liability for his own negligence are basically valid but must be strictly construed and that failure to state an attempted exculpation or indemnity in plain, unambiguous and clear terminology will result in an interpretation that the clause was not intended to exempt the actor from liability for his own negligence. Notwithstanding this rule of strict interpretation, the contract must be interpreted by the court and the intent of the parties determined. The present clause includes within its provisions a statement that the buyer 'waives all other...conditions or liabilities...arising by law or otherwise...whether or not occasioned by Seller's negligence... The reference to negligence can have no meaning unless it refers to tort negligence, for an action based on warranty may be maintained whether or not there is negligence; that is its function. Even though disclaimer clauses are to be strictly construed, still we find that this clause covers not only contractual warranty liability but also tort liability.[85]

The court in its findings, however, noted the adequate bargaining power and sophistication of the parties and that no personal injuries were involved.[86] The court also noted that the rights of the passengers will not be adversely

affected. Passengers are not parties to the contract, the court said, and their right cannot be compromised since they retain a right to bring a direct action against Douglas for negligence.[87]

3. Disclaiming Strict Liability

It is not clear whether strict liability theory can and should apply to property damages suffered by a commercial buyer in privity of contract with the seller where the parties have clearly attempted to exclude that liability by agreement.[88] The strict liability is a no-fault product liability theory presently accepted by most jurisdictions in the United States. The theory was developed primarily as a means by which consumers could be compensated for personal injuries caused by defective products.[89] According to this theory which will be discussed in detail in a subsequent chapter of this study, as long as there is physical damage caused by a defective product, the seller is liable regardless of any attempt to disclaim liability or to exercise all possible care in the preparation or the sale of that product.[90]

The question, however, arises as to whether commercial entities in fact need the exclusive protection which is afforded by this theory, when, unlike most consumers, they can adequately assess the risk of a potentially defective product and bargain for contractual remedies. Some courts have permitted contractual exculpatory clauses to be effective in disclaiming strict liability obligations of the

seller in situations limited to transactions between commercial entities in which no injuries occurred to persons or property other than to the product itself.[91] Other courts held, in contrast, that such a disclaimer is not applicable.[92] The trend of the judicial thinking on this issue definitely leans toward upholding such disclaimers in the litigation involving commercial setting from positions of relatively equal economic strength. This position has been expressed in the holdings of three landmark cases: Keystone Aeronautics Corp. v. R. J. Enstrom Corp.,[93] Delta Airlines, Inc. v. McDonnell Douglas Corp.,[94] and Mid Continent Aircraft v. Curry County Spraying Service.[95] These cases were decided under the law of Pennsylvania, California and Texas, respectively. Each has involved a contractual disclaimer contained in the aircraft purchase agreements. Ruling in those three preceding cases has been reinforced in other recent cases which will be cited later in this discussion.

Perhaps the best judicial statement recognizing the right of the parties to disclaim strict tort liability came in the ruling on the first case. The Third Circuit Court of Appeals in Keystone Aeronautics Corp. v. R. J. Enstrom Corp.[96] made these pertinent comments:

> A social policy aimed at protecting the average consumer by prohibiting blanket immunization of a manufacturer or seller through the use of standardized disclaimers engenders little resistance. But when the setting is changed and the buyer and seller are both business entities, in a position where they may be effective and fair bargaining, the social policy loses its raison d'etre. The transaction then tends to be more influenced by gravitational pull of the Uniform Commercial Code than by the consumer oriented 402A.

> Since the Code is tolerant of disclaimers and limitation clauses within certain defined limits, that same philosophy would be equally approving of a negotiated waiver of 402A. Such a limitation on comment would avoid the not unfamiliar result of "overkill" when a legal principle completely valid in its original context is extended so far that the mischief caused may be equal to the original disorder sought to be remedied.
>
> ....
>
> We conclude therefore that Pennsylvania law does permit a freely negotiated and clearly expressed waiver of 402A between business entities of relatively equal bargaining strength.[97]

The second case Delta Airlines Inc. v. McDonnell Douglas Corp.,[98] involves almost a similar factual situation and among the same parties of the first Delta case discussed earlier. The case provided a similar judicial recognition of the relevance of freely negotiated contractual limitation to a strict liability in tort claim for commercial property damages. Delta sued for damages to an aircraft when once again the nose wheel on the aircraft malfunctioned upon landing, causing property damages but no personal injuries. The court determined that the warranty limitation had not been imposed by Douglas on a "take it or leave it" basis. The court held again along the same line of reasoning like in the first Delta case that the provisions of the liability limitations did not contravene California public policy and were sufficiently clear to eliminate liability for both negligence and strict liability in tort. The Court said:

> Although the California Court of Appeal did not expressly mention strict liability in the earlier Delta Air Lines, Inc. v. Douglas Aircraft Co., Inc. case, the holding by that Court is broad enough to encompass strict liability. In reaching its decision, the California Court cited and discussed

> Greenman v. Yuba Power Products, Inc.,....the landmark California case dealing with the concept of strict liability in tort, and expressly held: 'Even though disclaimer clauses are to be strictly construed, still we find that this clause covers not only contractual warranty liability but also tort liability.'.... The doctrine of strict liability is a tort concept, and the statement by the California Court that the exculpatory clause is broad enough to encompass 'tort liability' as well as other forms of liability clearly indicates that strict tort liability has been disclaimed. Any other conclusion would emasculate the basic purpose of the Warranty Article and exculpatory clause.[99]

The two Delta cases have been cited among others to support the holding of the Texas Supreme Court in its ruling in a more recent case Mid Continent Aircraft Corp. v. Curry County Spraying Service, Inc.[100] decided in July 1978. In this case Curry County Spraying Service bought a rebuilt airplane "as is" from Mid Continent Aircraft Corporation. The airplane subsequently crashed due to failure to attach the crank shaft gear bolts when the engine was overhauled. The crash caused several thousand dollars in damages to the fuselage and wings but there was no personal injuries. Curry County had operated the rebuilt plane for approximately 30 hours when the engine failed and the plane crashed while spraying insecticide on crops in Parmer County, Texas. Curry County Spraying Service brought an action against the defendants (Mid Continent and those who rebuilt the plane) for the costs of repairing the plane. The action was based on negligence, breach of warranty and strict liability in tort. The trial court in rendering a judgment for Curry County, held the defendants jointly and severally liable for the amount of $4,658.49 for damages for the plane and

$3,690.00 for loss of use. The defendants were held liable under strict liability in tort as sellers of a defective airplane that was unreasonably dangerous. On appeal the Court of Civil Appeals affirmed that the damages were within the reach of strict liability in torts and further stated that by merely conditioning a sale upon acceptance of an "as is" provision, the seller has not avoided this strict liability. Again Mid Continent appealed to Texas Supreme Court. The Court reversed the judgment and held that: (1) buyer's cause of action for property damage sustained in the crash was a cause of action for breach of warranty rather than strict liability in tort, and (2) where buyer bought the airplane "as is" there were no implied warranty of merchantability and fitness on which recovery could be had. In addressing the first issue of applying the strict liability theory the Court noted:

> The consumer protection needs upon which strict liability is based are not sufficiently strong to impose that theory of recovery over the existing sales law remedies for Curry County's loss in this case. In transactions between a commercial seller and commercial buyer, when no physical injury has occurred to persons or other property, injury to the defective product itself is an economic loss governed by the Uniform Commercial Code. Curry County's cause of action for the damage of the airplane lies in breach of warranty as provided by the Code.[101]

As to the disclaimer itself, the court simply stated that with the disclaimer the defendant has effectively eliminated the implied warranties involved in the sale of the airplane. And that as a result, the plaintiff has taken the entire risk as to the quality of the airplane and the resulting loss.

Although the Texas Supreme Court did not expressly address the question of whether the disclaimer shielded the seller from strict liability obligations, the ruling in this case nevertheless seemed to lead to that conclusion. A reading of this case in conjunction with the holdings in the other two cases discussed earlier reflects the growing judicial attitude toward upholding the contractual undertakings of limiting or excluding liability of the aircraft manufacturer.

Whenever damages occur to the aircraft itself, and no personal injuries are involved contractual disclaimers clearly allocating risk between commercial entities will be held effective against recourse in strict liability in tort. This conclusion has been reinforced by the ruling of at least two recent important product laibility claims against aircraft manufacturers. In the first case Scandinavian Airline System v. United Aircraft Corporation[102] (U.S. Court of Appeals Ninth Circuit July 24, 1979) the Court ruled that for policy reasons the strict liability doctrine is not applicable when a large air carrier sued a manufacturer of an aircraft engine for a defect in the product that caused property damage to the engine itself and the aircraft. In the other case Tokio Marine and Fire Insurance Company Ltd., Et Al. v. McDonnell Douglas Corporation[103] (U.S. Court of Appeals for the Second Circuit, March 6, 1980) the Court came to the same result along the same basic reasoning.

E. Conclusion

Contractual limitations of liability contained in aircrafts purchasing and sale agreements do not bind third party passengers. Injured passengers seeking damages from aircraft manufacturers can establish their claims, among other bases, on implied warranty. Privity requirement is fading away as many jurisdictions in the United States have relaxed the rules relating to this matter.

Where no personal injuries are suffered in an aviation accident and only property or commercial losses occur to airlines, contractual limitations are usually binding. Accordingly, by drafting appropriate language in the purchase and the sale documents of an aircraft or component part a manufacturer can virtually and effectively block any latent claim by the airlines related to that type of damage. The airlines and the aircraft manufacturers are commercial entities with sophisticated legal expertise. Both are in an equal position to negotiate their contractual terms thereby, allocating risks. The trend on the part of the courts to uphold the contractual terms, allocating these risks between the aircraft manufacturers and the airlines is evident in some recent decisions. Contractual disclaimers, properly drafted can block claims in negligence and in strict liability against the aircraft manufacturer when the subject matter involves property or commercial damages. Under the present conditions disclaimers are perhaps the most effective weapons in the hands of the aircraft manufacturers to escape product liability claims by the airlines for property and commercial damages.

FOOTNOTES
(Chapter Three)

[1]For an informative overview of these theories see W. Prosser, Law of Torts 4th ed. (1971) at 461-681.

[2]Section 2-104 of the Uniform Commercial Code defines merchant as follows:

> "Merchant means a person who deals in goods of the kind or otherwise by his occupation holds himself out as having knowledge or skill peculiar to the practices or goods involved in that transaction or to whom such knowledge or skill may be attributed by his employment of agent or broker or other intermediary who by his occupation holds himself out as having such knowledge."

[3]For a comprehensive treatment of law of sales in the United States see F. A. Whitney, The Law of Modern Commercial Practices (1965); see also White & Summers, Uniform Commercial Code (1972).

[4]See H. J. Martin, Negotiating the Warranty and Guaranty Provisions of an Airplane Contract From the Manufacturer's Viewpoint (1973) 2 Int'l Bus. Law.

[5]See White & Summers, Supra, note 3 at 271-274.

[6]Hursh & Bailey, American Law of Product Liability (1974) at 431. Some legal scholars, hover, disagree with this pre-position and lean toward considering the warranty as concept of tort law. See for example Prosser, Supra, note 1.

[7]L. S. Kreindler, Aviation Accident Law (1974) 7.03(1).

[8]Ibid., at 7.03(1).

[9]See Whitney, Supra, note 3 at 158.

[10]For an extensive treatment of the history of the Uniform Commercial Code and commentary on each section, see generally White & Summer, Supra, note 3.

[11]The Uniform Commercial Code Sec. 2-313(1) (1962 Official text).

[12]The Uniform Commercial Code Sec. 2-313(2) (1962 Official text).

[13]Ibid.

[14]See generally Martin, Supra, note 4 at 68-69; see also S. Davis, Negotiating the Warranty and Guaranty Provisions of An Airplane Contract From the Airline's Point of View (1973) 2 Int'l Bus. Law at 74-75.

[15]See Martin, Supra, note 4 at 68-69.

[16]See White & Summers, Supra, note 3 at 274-275.

[17]The Uniform Commercial Code Sec. 2-313(2).

[18]See White & Summers, Supra, note 3 at 274-276.

[19]Hill Aircraft & Leasing Corp., v. Simon, 122 Ga. App. 524, 177 S.E.2d 803, 508 UCC Rep. Ser. 474 (1970).

[20]Id.

[21]Lane v. C. A. Swanson & Sons, 130 Cal. App. 2d 210, 278 p. 2d 723 (1955).

[22]Kreindler, Supra, note 7 at 7.03(1).

[23]R. L. Palmer, Express Warranties Arising From Advertisement (1975) 41 J. Air L. 497, 503.

[24]Ibid., at 503-504.

[25]For a detailed treatment of implied warranties of manufacturers see Hursh & Builey, Supra, note 6 at 512-534.

[26]The Uniform Commercial Code Sec. 2-314 & 315.

[27]The Uniform Commercial Code Sec. 2-314(1).

[28]The Uniform Commercial Code Sec. 2-315.

[29]The Uniform Commercial Code Sec. 2-314(2).

[30]The Uniform Commercial Code Se:

[31]Comment No. 2 on Section 315 of the Uniform Commercial Code.

[32]Goldberg v. Kolsman Instrument Corp., 240 N.Y.S. 2d. 592 (1963).

[33]Krause v. Sud-Aviation 301 F Supp. 513(SD N.Y. 1968).

[34]See A. L. Corbin, Corbin on Contracts (1951), Vol. 4.

[35]Ibid.

[36]W. Kimble & R. D. Lesher, Product Liability (1979) at 145.

[37]See L. R. Frumer & M. I. Friedman, Product Liability (1979) at 16.03(3). See also W. Prosser, The Fall of the Citadel (Strict Liability to the Consumers) (1966) 50 Minn. L. Rev. at 791.

[38]For definition and treatment of the subject of horizontal privity and vertical privity see R. J. Nordstrom, Law of Sales at 282 see also Pelster, The Contractual Aspect of Consumer Protection: Recent Developments in the Law of Sales Warranties (1966), 64 Mich. L. Rev. 1430 at 1442-1444.

[39]Ibid.

[40]32 N.J. 358(1960), 161 A. 2d 64(1960). This case was briefed earlier in Chapter Two in the section dealing with the development of product laibility law in the United States.

[41]Ibid.

[42]Ibid.

[43]Uniform Commercial Code Section 2-318.

[44]For the list of the states which adopted each one of the alternatives provided by Section 2-318 see Kimble-Lesher, Supra, note 36 at 331.

[45]Ibid.

[46]Ibid.

[47]Ibid.

[48]Nordstrom, Supra, note 38 at 284. This writer cited Kassab v. Central Soya (432 Pa. 217, 246 A.2nd 848 1968) a decision of the Supreme Court of Pennsylvania which overruled on earlier case requiring vertical privity as a condition for maintaining an action against the manufacturer.

[49]Maryland Uniform Commercial Code Section 2-314.

[50]Goldberg v. Kolsman Instrument Corp., 240 N.Y.5.2nd 593 (1963).

[51]Krause v. Sud-Aviation 301 F. Supp. 513 (SD.N.Y. 1968).

[52]Ibid., at 524.

[53]Passengers of airplanes may fall within the two alternative versions of Section 2-318 (B + C).

[54]See generally Corbin, Supra, note 34 at vol. 5 Section 1068 and also 1472.

[55]See for example Section 2-316 and Section 2-302 of the Uniform Commercial Code and the drafter comments on these two sections.

[56]The Uniform Commercial Code Section 2-316(1).

[57]The Uniform Commercial Code Section 2.316(2).

[58]The Uniform Commercial Code Section 3-3.6(3).

[59]The Uniform Commercial Code Section 2-302.

[60]The Uniform Commercial Code Section 2-719(3).

[61]Henningsen v. Bloomfield Motors, Inc. 32 N.J. 358, 161 A.2d 6q (1960).

[62]McMillen-Feeds, Inc. v. Harlow, 405 S.W.2d 123. (Tex. Civ. App. 1966).

[63]Henningsen v. Bloomfield Motors, Inc. 32 N.J. 358, 161A.2d 6q (1960).

[64]R. S. Harkey, Manufacturers' Limitations of Warranties: Aircraft Damages (1975) J. Air L. 279.

[65]See Martin, Supra, note 4, see also Davis, Supra, note 14.

[66]The conslusion was reached by the court based on the evidence provided by the defendant in the first Delta case cited and discussed in this section at p. 114. See also Martin, Supra, note 4 at 70.

[67]See Martin, Supra, note 4 at 68-69.

[68]This is a typical clause which is usually contained in aircraft purchase agreements. This text has been cited by Martin, Supra, note 4 at 69.

[69]Cited by Martin, Supra, note 4 at 69.

[70]See H. DeSaussure, "Product Liability and the Use of Disclaimer Clauses by Aircraft Manufacturers" in Bockstiegel, Product Liability in Air and Space Transportation Proceedings of an International Colloquium in Cologne 1977, at 157. See also Harkey, Supra, note 64.

[71]The Uniform Commercial Code Section 2.316.

[72]Holcomb v. Cessa Aircraft Company, 493 F.2d 1150 (1970).

[73]Ibid., at 1157.

[74]Ibid.

[75]See Harkey, Supra, note 64.

[76]Ibid., at 282.

[77]Ibid., at 283.

[78]DeSaussure, Supra, note 70 at 164.

[79]Ibid.

[80]See Harkey, Supra, note 64 at 286-287.

[81]This argument was advocated by Delta Airline Lines, Inc. as one of the bases to strike down a disclaimer clause in Delta Airlines, Inc. v. McDonnell Douglas Corp., 503 F.2d.239 (1974).

[82]Reynolds v. Preferred Mutual Insurance Company, 442 F.2d 670 (5th Cir. 1971), Southwest Forest Industries, Inc. v. Westinghouse Electric Corp., 422 F.2d 1013 (9th Cir. 1970).

[83]Delta Airlines Inc. v. Douglas Aircraft Company, 47 Cal. Rptr. 518. See West's Ann. U.C.C. Sec. 2316. See also J. D. Cole, The Present State of the Law in the United States from the Standpoint of Industry, contained in Bockstiegel, Product Liability in Air and Space Transportation Proceedings of an International Colloquim in Cologne (1977) 109 at 119.

[84]Delta Airlines, Inc. v. Douglas Aircraft Co., 47 Cal. Rpt. 518 (1965).

[85]Ibid., at 521-22.

[86]Ibid., at 523.

[87]Ibid., at 524.

[88]For a discussion of the subject of interests protected under the theory of strict liability see Prosser, Supra, note 1 at 665. See also Speide, "Product Liability, Economic Loss and the UCC". 40 Tenn. L. Rev. 309 (1973).

[89]For discussion of strict liability and its development see Prosser, Supra, note 1 at 656-665.

[90]See Restatement (Second) Torts, Section 402A.

[91]See for example Keystone Aeronautics Corp. v. R. J. Enstrom, 499 F.2d 146 (3rd Cir. 1974).

[92]See for example Vandermark v. Ford Motor Co., 61 Cal.2d 256, 37 Cal. Rptr. 896, see also Greeno v. Clark Equipment Co., 237 F. Supp. 427 (N.D. Ind. 1965).

[93]Keystone Aeronautics Corp. v. R. J. Enstrom Corp., 499 F.2d 146 (3rd Cir. 1976).

[94]Delta Airlines Inc., v. McDonnell Douglas Corp., 503 F.2d 239 (1974).

[95]Mid Continent Aircraft v. Curry County Spraying Service, 572 S.W. 2d 308.

[96]Keystone Aeronautics Corp., v. R. J. Enstrom Corp., 499 F.2d 146 (3rd Cir. 1976).

[97]Ibid., at 149.

[98]Delta Airlines Inc. v. McDonnell Douglas Corp., 503 F.2d 239 (1974).

[99]Ibid., at 245.

[100]For an extensive analysis of this case see note: Product Liability - Damage to the Product Itself - When Defect in Product Causes Damage Only to the Product Itself, The Resulting Loss is an Economic Loss No Recoverable Under the Tort Concept of Strict Liability (1978) J. Air L. 207 at 44.

[101]Mid Continent Aircraft v. Curry County Spraying Service 572 S.W.2d 308.

[102]601 F.2d 425 (C.A. Cal. 1979), 15 Avi.17, 729.

[103]617 F.2d 936 (1980), 15 Avi.18,050.

CHAPTER FOUR

AIRCRAFT MANUFACTURERS LIABILITY IN TORT: NEGLIGENCE

A. General Remarks

Negligence, being the oldest constituent theory of product liability law, was used in actions against manufacturers of aircrafts or component parts earlier than any other theory. As early as October 1937, a court in the State of Michigan found a manufacturer of an aircraft negligent in designing an aircraft which was in an accident and accordingly awarded damages to plaintiff.[1]

Although the importance of the negligence theory in pursuing claims of product liability has been affected and downgraded by the introduction of strict liability, many claims are still predicated on negligence.[2] In the following a brief study of that theory and its application against manufacturers of aircrafts and component parts in product liability claims will be made.

The common law rule that a manufacturer is not liable even in negligence to remote users or consumers (of his product) with whom he has no privity of contract has been eroded first in the famed case of MacPherson v. Buick Motor Co. in 1916.[3] Judge Cardozo, speaking for the New York Court of Appeals, held the manufacturer of an automobile

liable to the ultimate user who was injured when the automobile collapsed as a result of a defective wheel. This decision has gradually been accepted by the different jurisdictions of the United States with the State of Mississippi being the last to incorporate the new rule in 1966.[4] The rule that has finally emerged is that the manufacturer is liable for negligence in the manufacture or sale of any product which may be expected to inflict substantial harm to users or consumers and anyone in the vicinity of that product's probable use.[5]

Negligence in product liability is defined as the failure to exercise the standard of care which would be exercised by the reasonable man under the circumstances.[6] It is the doing of something that a person of ordinary prudence would not have done in the same or similar circumstances, or a failure to do something that a person of ordinary prudence would have done in the same or similar circumstances.[7] Since liability is based on negligence a manufacturer of a product is under a duty to exercise all reasonable care in the conduct of performing his duty. Of course, the duty of reasonable care encompasses the surrounding circumstances and conditions in which the product will be consumed or used. And therefore, the potentials of a product to inflict injuries should be considered in determining the nature and the characteristics of that duty of care.

In contrast to the concept of warranty which is essentially based on breach of contractual obligations,

negligence liability is imposed whenever a manufacturer's conduct, in preparing and manufacturing a product,falls below a legally defined standard of care. The (Second) Restatement of Torts treating the matter of manufacturer's liability pursuant to negligence has provided the following provision.

> A manufacturer who fails to exercise reasonable care in the manufacture of a chattel which, unless carefully made, he should recognize as involving an unreasonable risk of causing physical harm to those who use it for a purpose which the manufacturer should expect it to be used and to those whom he should expect to be endangered by its probable use, is subject to liability for physical harm caused to them by its lawful use in a manner and for a purpose for which it is supplied.[8]

Whenever a product liability claim is pursued on a theory of negligence it is necessary, as in all other cases, that plaintiff establishes the elements of actionable negligence.[9] Negligence in that respect contains four elements: first, a duty of the defendant to exercise due care by conforming to certain standards. Second, a breach of that duty by the defendant. Third, plaintiff must establish an actual or proximate causation relationship between the breach and the injury. And fourth, plaintiff must establish loss or damages.[10]

The initial step in the assessment of manufacturer's liability grounded on negligence is the determination of the nature and the character of the duty of care which the law imposes upon the manufacturer. The standard of "reasonable care" applied to product liability is a relatively vague criterion. The courts have struggled with this concept and its application in product liability litigation.[11] It has

been ruled, however, that because manufacturer is the maker of the product who puts it on the market for consumption and use, he is presumed to be an expert in the field. Therefore, the standard by which he is measured is that of the reasonable man who is an expert in manufacturing that particular product.[12] The standard of care to be exercised in this regard, however, is not measurable in accordance with what others in the same line of business are doing, or what is customary in trade or business.[13] Since even an entire business cannot, by adopting careless methods to save time and effort and money, be permitted to set its own uncontrolled standards.[14] The concept, of reasonable care is not static but changes within the circumstances of the individual case. This of course, implies that greater standards of care is required of manufacturers and sellers of dangerous products. Since due care must be commensurating with the risk of potential danger involved.[15]

A closely related concept to the manufacturer's "reasonable care" imposed upon him by law is the test of "foreseeability". The Restatement (Second) of Torts relates the concept of foreseeability to three elements associated with manufacturing a product; the risk of harm, uses and misuses of the product and the class of persons who may be affected by it.[16] Therefore, manufacturer's liability may be denied if one of these elements is infact unforeseeable.[17] Examples of unforseeability may be illustrated in situations like these; a manufacturer does not have a duty to provide a

burglar proof ignition key for an automobile[18] or to provide seat belts for a bus passenger.[19] The forseeability requirement that the plaintiff be within a class of persons reasonably expected to be harmed if the product was negligently or defectively made may be illustrated in a fairly recent case against an aircraft manufacturer. In Saxton v. McDonnell Douglas Aircraft Co.,[20] an airplane manufacturer was not held liable, for reasons of lack of forseeability, in the suicide of a mother of a passenger who was killed in an accident.

One of the basic elements of any product liability claim is the establishment of the "legal" or the "proximate" cause. In order to hold a manufacturer liable for injuries complained of, it is essential that some reasonable connection between the defendant's act or failure to act and the injuries suffered be established. A manufacturer of a product is not liable where his negligence is not the proximate cause of the injury.[21] The Restatement (Second) of Torts regards defendant's conduct as a proximate cause of harm to another if the defendant's conduct was a substantial factor in bringing about the harm and if there is no rule of law relieving the actor from liability.[22]

In aviation product liability, the question of causal connection or proximate cause between manufacturer's negligence and the damages complained of came up in several cases.[23] It is established that in order to hold a manufacturer of an aircraft or component part liable for the injuries or damages complained of, his negligence must have been the proximate

cause thereof.[24] This liability may therefore be relieved by an intervening or a superseding cause which may break the chain of connection.[25] An example of an intervening cause is the negligence or the fault of another whereby the original negligence ceases to be the proximate cause of the injury, provided that such an intervening cause could not have been reasonably anticipated or foreseen in the exercise of due care.[26] Conducting an inspection by a purchaser during the manufacturing process of an aircraft has not been considered as an intervening factor relieving the manufacturer from his negligence in making that aircraft.[27]

B. Areas of Negligence

Aviation product liability cases asserting aircraft manufacturer's negligence have been mostly concentrated in three areas: negligence in the construction of an aircraft or component parts; negligence in the designing of an aircraft or component parts and finally negligence in warning about hazards, problems or dangers associated with the use of an aircraft or component parts.[28] The following is a brief discussion of each of these areas.

1. Negligence in Manufacturing

A manufacturer of an aircraft or component part is under a duty to exercise due care in the manufacturing process of his product. This broad duty of care includes proper material selection, fabricating, constructing, assembling

and suitable and adequate care in inspecting and testing.[29] In the performance and conduct of this duty the manufacturer of an aircraft or component part must act as a reasonable man under the circumstances.[30] In so doing he is held to the standard of an expert in the field of manufacturing that particular product. The foregoing necessarily implies that the manufacturer of aircraft and component parts has an affirmative duty to make tests and experiments and inspection during and after the process of manufacture. The extent of such an undertaking should commensurate with the intended use of the product and the potential dangers involved in its operation.[31] The question as to whether a manufacturer of an aircraft or component part has actually departed from this standard of care is usually resolved by measuring his conduct against the standard of what an ordinary prudent manufacturer of an aircraft would have done under the same or similar situation.[32]

It is established that prime aircraft manufacturers are under a duty of care not only to products made by them but also with respect to component parts incorporated into their aircraft but produced by other manufacturers.[33] This does not, however, free component manufacturers of their duty to employ a high degree of care and caution in making their products.[34]

In several cases of aviation product liability manufacturers of aircraft or component parts were found in breach of this duty. This may be illustrated by the following two cases.

In Northwest Airlines v. Glenn L. Martin Co.,[35] an action for damages which resulted from the destruction of an airplane was brought against the manufacturer of that aircraft. The manufacturer was charged with negligence in the design, construction and testing of that aircraft. The airplane took off from Chicago on a regularly scheduled non-stop flight to Minneapolis. It carried 33 passengers, a pilot, co-pilot and stewardess. All were killed in the crash which occurred when the plane went through a storm. Subsequent investigation revealed that the immediate cause of the crash was the breaking of a front wing span at the point where the out section of the wing was attached. Later in the same day on which that crash occurred another similar Northwest aircraft produced by the same manufacturer flew on a similar flight to Minneapolis. The pilot of this second plane reported some unusual trim conditions which he had encountered upon flying that plane. Accordingly, an inspection was made to that aircraft which in turn revealed that a joint in the right wing of the plane was completely broken and that the wing was being held in place only by its "skin". It was the same joint that had broken causing the crash of the other ill-fated plane. Northwest immediately grounded its remaining 23 similar airplanes. A thorough inspection of these airplanes was made jointly by Northwest and Martin, the wings of the airplanes were all disassembled and it was discovered that of the four remaining airplanes which had flown in excess of 1,200 hours, all had fatigue cracks in

the wing joints exactly where the wings of the crashed plane had broken.[36]

Reversing a judgment entered on a verdict in defendant's favor, the United States Court of Appeals (Sixth Circuit) held the aircraft manufacturer negligent. On the issue of contributory negligence of the Northwest and its inspection before accepting the planes, the court said that a purchaser of airplanes from a manufacturer, who is under no duty to make inspection, is not guilty of contributory negligence. Inspection by Northwest Airlines does not preclude liability of the aircraft manufacturer, the court affirmed.

The second case Beech Aircraft Corp. v. Harvey[37] is a product liability action which involved the death of two men in the crash of a light plane. The crash occurred during an attempted takeoff. Plaintiff alleged that the aircraft's wings had been negligently welded to the craft during construction and that as a result, a fatigue crack had developed in the craft causing the left wing to "fold up". The manufacturer claimed that the crash occurred due to overloading factors. Both sides introduced testimony including considerable testimony by many witnesses as to whether the left wing showed fatigue or overload fracturing. The jury returned a verdict against defendant Beech Aircraft Corp., for almost two million dollars. Following an appeal by the defendant, the Supreme Court of Alaska dismissed all the counts upon which Beech Aircraft established it's appeal and affirmed the judgment.[38]

There are other cases in which aircraft manufacturers were charged with negligence in manufacturing aircraft or component parts. Among these OKeefe v. Boeing Co.,[39] Potter v. Hartzell Propeller Inc.,[40] Nicklaus v. Hughes Tool Co.,[41] and Pan American World Airways, Inc., v. United Aircraft Corp.[42]

2. Negligence in the Design

An important aspect of an aircraft manufacturer's duty of care is to design an aircraft or component part which is safe for its intended or forseeable use.[43] According to the Restatement (Second) of Torts a manufacturer of a product made under a plan or design which makes it dangerous for the users is under a duty to exercise reasonable care in the adoption of a safe plan or design.[44] Failure to exercise such a duty in making a safe design renders the manufacturer of such a product liable for physical harm to users and to anyone who is expected to be endangered by its probable use.[45]

The distinction between negligence in designing a product and negligence in manufacturing a product discussed earlier has been described by Hursh & Bailey as follows:

> Negligence construction is carelessness in the actual manufacturing of a thing, while negligent design involves improper planning of the thing. Or, as stated by one court, there is a distinction between the negligent manufacture of an article and negligence in failing to observe reasonable care in the design of an article of manufacture; an article may be properly designed and negligently constructed either through the use of defective materials or lack of reasonable care in the selection of materials and reasonable skill in assembly, but an article may also be negligently manufactured and sold because of improper design.[46]

It is rather interesting that the question of the difference between an aircraft manufacturer's negligence in designing an aircraft and his negligence in constructing an aircraft was raised in the first reported aviation product liability case which was decided in October 1937. In Maynard v. Stinson Aircraft Corp.,[47] one of the jurors raised this question. The Court, in response, said negligence in construction is carelessness in the actual building of a thing such as neglecting to put proper bracing in for the wings or using improper material. In the Maynard case a claim was brought against the aircraft manufacturer for negligence in designing an airplane with faulty short exhaust stacks and short carberator drain pipe. This faulty design, allegedly caused a fire which destroyed the plaintiff's plane. The court found the aircraft manufacturer negligent on these counts and awarded plaintiff the sum of $27,000 in damages.

Designing an aircraft or one of its component parts is by nature an intricate and complex task. A safe and successful new design for our present day typical jet airliner needs considerable skills and expertise in technology. Due to the complex and the numerous factors involved, potential for error exists.[48] Several considerations in designing an aircraft regardless of how small or large have been pointed out to be basic. These include:

(a) Aerodynamics
(b) Performance
(c) Stability and control
(d) Structural integrity
(e) Reliability
(f) Producability
(g) Aircraft systems
(h) Human factors

Each of these areas is extremely critical and potential failure may occur due to inadequate consideration. It has been pointed out that a variety of design defects or failures may occur in each of these areas.[50] These failures range from aerodynamic to design problems, inducing pilot error.[51]

Under the heading of aircraft manufacturer's negligence in design, some commentators speak of aircraft crashworthiness as a possible basis to establish a claim against the manufacturer.[52] Although this theory has developed mainly in the automobile accident litigation its application has begun to expand to the field of aviation. A discussion of this subject will be made in detail when dealing with aircraft manufacturer's liability in the chapter on strict liability.[53]

In several aviation accidents an aircraft manufacturer's liability has been established on the basis of manufacturer's negligence in the design of an aircraft or component parts. This may be represented in Manos v. Trans World Airlines, Inc.[54] and also in Noel v. United Aircraft Corp.,[55] both cases are briefed in the following. The case of Manos v. Trans World Airlines[56] has involved a Boeing 707 airplane owned and operated by TWA. On November 23, 1964, approximately at 2:00 p.m., the airplane was departing from the Leonardo da Vinci Airport near Rome, Italy on a schedule flight destined for Cairo, Egypt. During takeoff the captain observed that the no. 4 engine EPR (engine pressure ratio) gauge had dropped off to a point of near zero reading. A

few seconds later after this, the no. 2 engine thrust reverser indicator warning light came on. The captain then decided to abort the takeoff after the appearance of these two abnormal indications. One of the procedures which was followed by the captain in aborting the takeoff was the use of the reverse thrust. Shortly after, however, the aircraft began to yaw to the right. This movement was countered by the captain's application of differential braking. This maneuver, however, did not cause the aircraft to stay on the runway. The aircraft veered again to the right and followed a path approximately parallel to the runway. During this time the no. 4 engine struck a road roller and as a result a large section of the engine was knocked to the ground and the fuel started to pump out from the ruptured fuel line. After the aircraft came to a stop, there were a series of explosions in the aircraft fuel tanks which subsequently caused the destruction of the aircraft and the deaths and injuries of several people.

The actions of the crew of the aircraft prior to the takeoff aborting and after were determined to be in accordance with the TWA and Boeing recommended procedures and did not constitute an intervening cause for the accident. Investigation and evidence showed that the malfunction of the no. 2 engine thrust reverser caused the no. 2 engine to develop a substantial forward thrust when reverse thrust was being called for. The cause of the aircraft continuous and strong tendency to veer to the right during the aborted takeoff was an

assymmetric thrust resulting from the malfunction of the no. 2 engine thrust reverser mechanism.[57]

After the trial the court held that the aircraft manufacturer Boeing was negligent in designing and manufacturing a thrust reverser system which could develop substantial forward thrust during malfunction. The court pointed out that such a malfunction clearly should have been anticipated by Boeing in the exercise of due care. The court said:

> The intervening independent negligence, to whomever it is attributable, clearly should have been anticipated by Boeing in the exercise of due care. The thrust reverser should have been so designed that a loosening of the tube in the thrust reverser system would not result in the tremendous control problem that resulted here. Minimally, Boeing had a duty to provide an instrument in accordance with FAA regulations which would have indicated the malfunction to the crew. Intervening negligence of the flight crew, urged by Boeing, is not supported by the evidence, as the court's findings of fact, supra, reflect.[58]

The second case is Noel v. United Aircraft Corporation.[59] The case involved a crash of a Lockheed Constellation airplane owned and operated by the Venezuelan Airlines. The flight originated in New York at 3:18 a.m. having as its destination Marguetia, Venezuela. At about 4:30 a.m., engine trouble developed and the pilot notified the airport in New York that he was returning. At about 5:29 a.m. after beginning to dump fuel in preparation for its landing, the airplane burst into flames and crashed into the ocean approximately 30 miles off the coast of New Jersey. An action was brought against United Aircraft Corporation, the manufacturer of the airplane's propeller system alleging the accident was caused

by complications in the propeller and that United was negligent in failing first, to perfect a safer propeller system and second, to warn the airline of certain weaknesses in that propeller system which resulted in that crash.

Prior to the accident, United developed a device to cure overspeeding of the prop (pitchlock) to be used in the Lockheed Electra but not for the Constellation. A similar device was also developed and used by Douglas Aircraft in 1956 a few months before this accident took place.

Affirming the trial court on the issue of liability of the defendant manufacturer the United States Court of Appeals held that evidence showed that the crash occurred as a result of prolonged overspeeding of one of the propellers and the inability of the pilot to feather that propeller. The court also held that the manufacturer of the propeller was negligent for breaching his duty in failing to make available some type of control system for his propellers a device which had been developed for other airplanes under similar conditions. The Noel decision is particularly important because it imposes a continuing duty upon aircraft manufacturer to research, develop and supply new improved devices where the manufacturer becomes aware of the serious inherent dangers of his product and where the state of technology makes it feasible.[60]

3. Negligence in Warning

A manufacturer of a product or a component part is not only under a duty to design and construct a safe product

but also is under a duty to give adequate warning and instructions about actual and potential dangers and risks involved in the use of his product.[61] This duty encompasses warning about dangers the manufacturer is aware of about his product and also those he should have known.[62] Thus, failure to instruct or warn where a reasonable and prudent man would do so is negligence.

The Restatement (Second) of Torts has adopted certain basic rules to govern the manufacturer's duty to warn. According to Section 388 of the Restatement:

> One who supplies directly or through a third person a chattel for another to use is subject to liability to those whom the supplier should expect to use the chattel with the consent of the other or to be endangered by its probable use, for physical harm caused by the use of the chattel in the manner for which and by a person for whose use it is supplied.[63]

Application of this rule, however, is contingent upon three conditions: (a) the manufacturer knows or has reason to know that the chattel is or is likely to be dangerous for the use for which it is supplied, and (b) has no reason to believe that those for whose use the chattel is supplied will realize its dangerous condition, and (c) fails to exercise reasonable care to inform them of its dangerous condition or of the facts which make it likely to be dangerous.[64]

Manufacturers of aircraft or component parts have been required through the years to use due care to give reasonable and adequate warning and instructions about the dangers and risks associated with the use of such a product.[65] It is also established, that the manufacturer's duty to warn of

any dangerous characteristics does not end upon the sale of an aircraft or component part. Rather such a duty continues after the sale or delivery of a product.[66]

Pursuing a claim against a manufacturer of an aircraft or component part on the basis of this theory is attractive to plaintiffs. The advantage of relying upon this theory in litigation is that, once it is established that the manufacturer breached his duty to warn, it is not necessary that a negligence or a defect in the construction or design of that aircraft or component part be proved.[67] This alleviates the plaintiff's extremely difficult burden of proving manufacturer's negligence in areas such as manufacture or design.

(a) Duty to Warn

In view of the extent of dangers involved in the operation of aircraft, there is no doubt that the manufacturer is under a duty to give adequate, clear, understandable and unambigous warning and instructions regarding the use of that aircraft and any other dangerous characteristics associated with its use. There are several aviation product liability cases in which manufacturer of aircraft or component parts were held negligent for failing to warn or instruct about certain dangerous conditions in the operation or use of an aircraft. These situations are perhaps best illustrated in the Noel v.United Aircraft Corp.[68] discussed earlier, Tayman v. Executive Aero, Inc.,[69] and in DeVito v. United Airlines Inc.[70]

The case of Tayman v. Executive Aero, Inc.[71] is

particularly important because liability of aircraft manufacturer was imposed on the sole theory of negligence in warning about certain dangerous conditions associated with that aircraft. The case involves a crash which occurred when the plane which was leaving Chicago encountered snow and ice conditions. The engine of the aircraft stopped and all efforts by the pilot to restart it were unsuccessful. The crash resulted in the death of four passengers and an injury to another. An action against the seller and the manufacturer of the aircraft was made based solely on negligence in warning. No claim of negligence in manufacture or design was made. The District Court entered a judgment against defendants, seller and manufacturer who inturn appealed. The Supreme Court of Minnesota held that the acknowledgment of the aircraft manufacturer that complete power loss could occur when flying in icy conditions if the power boost was left on, coupled with the admission of one of the defendants officers that this condition was probably the cause of the crash, provided sufficient evidentiary support for jury's conclusion. The Supreme Court in its upholding the judgment against the seller and the manufacturer for their negligence in failing to warn about such a particular risk of potential power loss in icy conditions said:

> A review of the testimony makes clear that there is ample evidence to support the jury's finding that both defendant manufacturer and defendant seller negligently failed to communicate to plaintiff as an owner and pilot the danger - which the manufacturer expressly admitted at trail - that a 'partial power loss and probably complete power loss can occur during icing conditions, if

> the Power Boost is left on,' and the fact that 'icing conditions prevail any time the temperature and moisture conditions combine to produce the possibility of impact ice' which 'may occur when flying through visible condensations even though there is no apparent ice formation on the aircraft surface.'[72]

In DeVito v. United Airlines, Inc.[73] a DC-6 airplane crashed killing 43 persons while it was on a scheduled flight from Chicago to New York. In a wrongful death action brought against the aircraft manufacturer for the death of a passenger, the United States District Court (E.D. New York) held that evidence sustained the verdict which found the defendant aircraft manufacturer guilty of negligence. There was evidence that the manufacturer had failed to inform and warn the airlines using those types of airplanes and to instruct them as to the hazards of undue concentrations of carbon dioxide in the cabin or cockpit quarters during emergency fire fighting. Douglas, the manufacturer, had, evidently, failed to instruct the use of full oxygen masks under such conditions.

(b) Post-Sale Duty to Warn

The duty of the manufacturer to use due care extends beyond the sale of his product.[74] The manufacturer of a product is required to warn of any newly discovered dangerous or serious conditions that may be associated with the use of that product. Thus, a duty to prompt warning exists whenever a dangerous condition or a latent defect which makes the product hazardous to life becomes known to the manufacturer.[75]

In the area of aviation product liability manufacturers of aircrafts or component parts have been held liable in several cases for breaching that duty.[76] It is established that aircraft manufacturers are not only under a continuing duty to warn about newly discovered hazardous conditions but also under a duty to develop and supply improved devices to remedy such conditions whenever the state of technology makes it feasible.[77]

The case of Braniff Airways, Inc. v. Curtis Wright Corporation[78] represents a situation where the manufacturer of an aircraft engine was held liable for failing to provide warning after the engine was sold. This case involved a DC-7 crash which occurred near Miami, Florida. There was evidence that the crash was caused by engine failure. The history of the manufacture of that engine shows that this type of engine was reproduced after another model. The new type, however, was made with more power than the original one. Expert testimony showed that this extra power caused the raising of the temperature in the cylinders and consequently affected the engine's reliability. The United States Court of Appeals Second Circuit in its ruling against Curtiss-Wright Corporation simply said that it is clear that after such a product has been sold and a dangerous defect in design has come to the manufacturer's attention the manufacturer has a duty to remedy this situation. If a complete remedy is not feasible the manufacturer has at least a duty to give users adequate warnings and instructions concerning methods for minimizing the danger.[79]

The question of aircraft manufacturer's continuing duty to improve his product by developing and supplying improved devices to remedy post-sale discovered hazardous conditions or defects, whenever technology makes such steps feasible, has long been established in the ruling in Noel v. United Aircraft Corp.[80] in 1964.

C. The Burden of Proof and the Evidence

Where recovery is sought in a product liability claim based on negligence it is necessary, as in any civil actions grounded on negligence, to establish the elements of actual negligence. The burden of proof falls upon the plaintiff.[81] In order for a plaintiff to succeed in a product liability claim predicated on negligence he must ordinarily show lack of reasonable skill and care on the part of the manufacturer by failing to conform to certain standards. The plaintiff must also show that this failure was the proximate cause of the injuries or damages complained of.[82] The nature and characteristics of the plaintiff's burden of proof in an aviation product liability claim has been described as follows:

> The plaintiff must establish from the proof and the inferences drawn from it, and in the absence of any other explanation, that it was more likely than not that faulty manufacturing caused the accident, but the burden is not on plaintiff to prove that the defendant's conduct was the only cause. Where the plaintiff establishes, however, only that defective manufacturing was one of two or more equally possible causes, plaintiff does not satisfy his burden of proof. After the plaintiff produces evidence with respect to negligence in the manufacture of the aircraft or component part thereof, the burden is then placed on the manufacturer of going forward

> with evidence of another possible cause, but the ultimate burden of proof remains on the plaintiffs throughout the case.[83]

Proving the aircraft manufacturer's negligence, often an extremely difficult task, may be established either by direct or circumstantial evidence.[84] Direct evidence such as exhibits or models are often used to demonstrate some fault or negligence in the construction or the design of an aircraft.[85] There are many occasions, however, when direct proof of negligence simply does not exist. In these cases plaintiffs may rely on the inferences which can be drawn from the existence of facts which can be directly proven. Here the doctrine of res ipsa loquitur (translated: the thing speaks for itself) may be used to ease the plaintiff's burden of proof.[86] The function of this doctrine in product liability claims is summarized by one commentator in the following:

> In essence, it is a means by which certain permissible inferences may be drawn from circumstantial evidence by imposing procedural disadvantages on the defendant. In some jurisdictions, it is a presumption affecting the burden of producing evidence.
>
> Where proof is shown that the defendant was responsible for all probable causes by which the accident could be reasonably explained, then the defendant must offer proof that the accident was caused by some other agency or that it could not have been avoided by the exercise of reasonable care. In the absence of such contrary evidence, res ipsa loquitur is a presumption that requires the jury to find that the defendant's negligence was a proximate cause of the accident.[87]

In practice the doctrine of res ipsa loquitur has been given generous application by the courts.[88] In view of its importance particularly in negligence it is not surprising

to note that the doctrine has played an important part in many product liability cases. The product liability cases in which the issue of res ipsa loquitur has been litigated involve products ranging from food and beverages to motor vehicles and airplanes.[89] The broadening of the application of the doctrine has been described to rest on three basic considerations: first the defendant's superior knowledge as to know how an injury occurred; second, the defendant's negligence as the more probable explanation of the accident and finally, the defendant's special responsibility for the plaintiff's safety.[90]

The doctrine of res ipsa loquitur has been applied or denied application in several cases involving aviation product liability. In OKeefe v. Boeing Co.,[91] for example, a wrong death and personal injury action was brought in N.Y. against the manufacturer of an Air Force B-52. The plane crashed in Maine during a training flight. Although significant amount of evidence was introduced at trail on the issue of negligence of the manufacturer, plaintiff was not precluded from relying on the res ipsa presumption. In another case Becker v. American Airlines, Inc.[92] the res ipsa loquitur doctrine was applicable in actions against the airline; manufacturer of airplane and manufacturer of altimeters installed in the airplane. The airplane allegedly crashed because of a defective altimeter. During the trial the question of application of the res ipsa loquitur doctrine was raised. The United States Southern District Court of

New York held the res ipsa loquitur doctrine applicable in actions against the airline, the manufacturer of the airplane and the manufacturer of the defective altimeters installed in the airplane. The Court noted that experience in aviation generally is sufficiently uniform to justify the inference that such an accident does not occur in the absence of negligence. The Court then moved to discuss the issue as to who has exclusive control over the instrument which caused the accident. The court said:

> It is admitted that defendant Kollsman Instrument Corporation (Kollsman) sealed the two altimeters here allegedly involved before it delivered them to defendant Lockheed between March and May, 1958 and that they remained so sealed until they were retrieved from the East River after the crash.
>
> Thus, defendant Kollsman had 'exclusive control' from the time it made the altimeters and sealed them until it delivered them to Lockheed who then had 'exclusive control' until it delivered them as a component of the plane to American, which thereafter had 'exclusive control'. As to the altimeters, therefore, this would appear to make all three defendants subject to the doctrine of res ipsa loquitur.
>
> On the trial of these actions the plaintiffs will have the benefit of the rule of res ipsa loquitur as to all three defendants insofar as the altimeters are concerned and otherwise as to defendants American and Lockheed.[93]

In Webb v. Zurich Insurance Co.,[94] application of the doctrine of res ipsa loquitur was denied. This case involved an airplane crash which took place near Lansing, Michigan on April 28, 1958. As a result of that accident the three occupants of the aircraft a Cessna 182 lost their lives. A suit was brought against the operator of the airplane, the insurance company and Cessna Aircraft Company which manufactured

the plane. The court dismissed the suit against Cessna and its insurance company after it was ruled that the airplane crash was caused by the pilot's negligence, who even though untrained and inexperienced in instrument flying, operated his aircraft under instrumental conditions. The court in denying the application of the res ipsa loquitur doctrine said that the airplane was completely airworthy when delivered and that the manufacturer did not possess any control of the airplane after delivery.[95]

Having discussed the question of burden of proof and the implications of the res ipsa loquitur in helping plaintiffs discharging that task, the questions of admissibility of evidence and its adequacy is considered hereinafter.

To be admissible evidence in claims of a product liability action against a manufacturer of an aircraft or component part must, as in any other civil actions, be competent material and relevant to the alleged negligence.[96] Exceptions to this rule, however, is made for the report relating to accident investigation or any part of investigation of National Transportation Safety Board.[97] Admissibility of that report or any part of it, although relevant, is precluded by the Federal Aviation Act.[98] The documents of certification and testing of the aircraft or component parts issued by the Federal Aviation Administration are, however, admissible. Through the years the courts have admitted or denied admission of several types and categories of evidence in litigating of product liability claims against

manufacturers of aircrafts or component parts. In Strauss v. Douglas Aircraft Co.,[99] an action was brought by a passenger against the airplane manufacturer for injuries resulting from a seatbelt. The evidence of a single instance in which the airline had made improper repairs to another airplane purchased from the defendant was excluded. But evidence of 191 instances of frayed cables on five airplanes was admissible as based on a sufficient large number of instances to show systematic conduct. In Manos v. Trans World Airlines,[100] an action was brought against the airplane manufacturer arising from a crash allegedly caused by defects in the thrust reverser system. The documents relating to technological improvements after delivery of the plane to the airline but before the accident, were admitted. Plaintiff's evidence of subsequent changes in airplane component offered in Boeing Airplane Co. v. Brown[101] was also admissible. The case involved an action against the manufacturer of the airplane for death allegedly caused by negligence in installing a defective component. The purpose of evidence was to show that it would have been feasible and practicable to incorporate the changes before the accident had occurred. In another case Prashker v. Beech Aircraft Corp.,[102] the court ruled that it was proper to permit the introduction of evidence of accident reports of other similar aircraft. The admission was, however, limited solely to the issue of alleged defects.

As to the rules which would determine the weight and

sufficiency of evidence to hold a manufacturer of an aircraft or component part liable to alleged injuries or damages, the general rules in civil actions are applicable.[103] While weight and sufficiency of evidence is considered according to each particular matter it has generally been held that in application of the general rules the facts in issue must be proved by a preponderance of the evidence.[104] In some cases evidence was held sufficient to show manufacturer negligent. Examples of these situations may be represented in Pease v. Beech Aircraft Corp.,[105] Bruce v. Martin-Marietta Corp.,[106] and Boeing Airplane Co. v. Brown.[107] Evidence was held insufficient in some cases. These may be illustrated in OKeefe v. Boeing Co.,[108] and Lindsay v. McDonnell Douglas Aircraft Corp.[109]

D. Defenses

1. Contributory and Comparative Negligence

It is generally recognized that in product liability litigation predicated on negligence the right to recover may be greatly affected by proof of contributory negligence on the part of the injured party.[110] According to the traditional doctrine of contributory negligence, a manufacturer, even though acting negligently, is not held liable to a buyer or a user, who has, by his own negligent conduct contributed to the injury complained of.[111] Thus, plaintiff's failure to conduct himself in a reasonable manner considering the circumstances may allow the defendant to incur no

liability despite his negligent conduct. Contributory negligence is defined as any conduct on the part of the plaintiff, falling below the standard that a reasonably prudent person would exercise in the interest of his safety, which contributes to produce his injury.[112] The defense of contributory negligence when it is raised in product liability is generally an issue of fact for the jury to determine whether under the circumstances there is a contributory negligence on the part of the plaintiff.[113]

Traditionally the successful establishment of contributory negligence on the part of a plaintiff resulted in complete bar of recovery.[114] Barring the plaintiff completely from recovery despite defendant's negligence has been criticized as unfair and unduly harsh.[115] As a consequence, the courts employed a variety of devices to mitigate the impact of this traditional doctrine.[116] The introduction of comparative negligence (comparative fault) doctrine represents the most explicit solution.[117] Comparative negligence abandons the all-or-nothing approach advocated by the contributory negligence and instead adopts a process of allocating loss and damages by comparing plaintiff's fault to that of the defendant's. This allocation is done by the fact finder who weighs and compares the respective fault of both plaintiff and defendant and divides the damages accordingly.[118]

At present the comparative negligence has replaced the defense of contributory negligence in most of the countries

that follow the common law tradition.[119] In the United States at least 33 states have abandoned the doctrine of contributory negligence and substituted for it some form of comparative negligence or fault system.[120]

General rules of contributory and comparative negligence are applicable to claims of product liability against manufacturers of aircraft and component parts. There are several cases in which the defense of contributory negligence was successfully established and consequently relieved aircraft manufacturers of liability. For example, flying an airplane in bad weather conditions was considered contributory negligence. Thus, in Prashker v. Beech Aircraft Corporation[121] an action for wrongful death was brought against the aircraft manufacturer. The United States District Court for the District of Delaware directed a verdict in favor of defendant. The plaintiffs appealed. The United States Court of Appeals - 3rd Circuit held that evidence failed to establish that the manufacturer was negligent in designing the aircraft in question and that evidence tended to establish that the crash was caused by the contributory negligence of the pilot by attempting to fly the airplane in bad weather conditions. In other aviation product laibility cases it was held that negligence of purchaser of aircraft in inspection of aircraft during its manufacturing process in the manufacturer's plant was not considered a contributory negligence that would alleviate manufacturer liability. This rule was laid down in the case of Northwest

Airlines, Inc. v. Glenn L. Martin Co.[122] It was held in another case that the act of grounding the entire fleet of a particular type of aircraft as soon as definite information of a second accident involving similar defects, exonorates the platiniff airlines from the charges of contributory negligence.[123]

2. Assumption of Risk

Assumption of risk is a concept closely related to contributory negligence and is a defense in a product liability claim in both negligence and strict liability.[124] Assumption of risk presupposes that one voluntarily encounters a danger of which he has knowledge and appreciation.[125] The principle of assumption of risk may be stated as follows: one who voluntarily chooses to use a product with complete knowledge, regardless of how the knowledge was acquired, of the risks to which he thus exposes himself, has voluntarily assumed the risk.[126]

Contributory negligence and assumption of risk, although both lead to the same results of relieving a manufacturer of any liability, if established, have some theoretical and practial differences. In establishing contributory negligence, the objective reasonable person standard test is applied. To prove assumption of risk, however, the defendant has the burden of proving that the plaintiff subjectively had actual knowledge, understanding and appreciation of the risk and was given viable choices in voluntarily assuming such risk.[127] This had to be determined upon that particular

person's actual conscious knowledge.[128] The theoretical difference exists in the proposition that in assumption of risk the plaintiff, in effect, consent in advance to relieve the defendant of an obligation or duty of care toward him and voluntarily enters into the risk. An example of assumption of risk in aviation product liability is illustrated by one commentator[129] in a situation in which an experienced pilot knows that a certain instrument does not operate reliably over certain terrain. Nevertheless, the pilot relies on the instrument and suffered an accident. Such an action by the pilot constitutes an assumption of risk unless it is established that the pilot did not have any other choice but to rely on that instrument.

3. Misuse

The defense of misuse in products liability encompasses some abnormal, unintended or unforseeable use of a product. It is generally recognized that the use of a product for a purpose, or in a manner neither intended nor reasonably forseeable will bar recovery.[130] The misuse of a product can perhaps be illustrated in a situation in which a plaintiff fails to follow directions and uses a product in contravention of a legally sufficient warning violating plain, unambiguous instructions.[131] However, it is important to mention that some abnormal or unintended uses will not constitute a legal misuse of a product if such an action was forseeable. Misuse, therefore, is not a defense when it could have been anticipated by the supplying manufacturer,

nor will misuse limit recovery in a situation in which the user could not foresee the consequences of his misuse.[132] The Supreme Court of Texas stated in one product liability case that:

> It is essential that the supplier prove, as an element of this defense, that the consumer plaintiff should have reasonably anticipated as consequences of misuse that the malfunction or injury, or similar malfunction or injury would occur.[133]

Determining the defense of misuse is normally a question of fact for the jury. The reasonable man test is applied. Misuse is a defense in claims predicated on both negligence and strict liability. In its application to claims of aviation product liability it has been suggested that the scope of misuse may include such operations as improper maintenance and improper overhaul of an aircraft.[134]

4. Disclaimers and Limitation of Remedies

Under certain conditions a disclaimer of liability for acts of negligence is a valid defense in relieving the liability of the manufacturer.[135] The disclaimer of liability is effective and enforceable when it is clearly spelled out and when litigation involves commercial entities in privity of contract suing for commercial or property damages.[136] Of course, the validity and enforceability of a disclaimer is subject to some basic conditions and restrictions. In particular, a disclaimer must not be against public policy, must not be unconscionable and must not be inconspicuous. The Uniform Commercial Code does not prohibit a disclaimer

of liability for negligence in connection with the sale of goods.[137]

As it has been shown earlier in the preceding chapter on contractual liability,[138] aircraft manufacturers can be relieved from liability predicated in negligence under the conditions mentioned above.[139] The law relating to this question is stated in a recent decision by the United States District Court for the Southern District of New York in an aviation product liability claim for recovery of property damages caused by a crash.[140] The court said:

> It is settled in New York that an exculpatory clause in a contract intended to insulate one of the parties from liability for his own negligence is enforceable, absent certain limited public policy considerations. While such an exculpatory clause need not explicitly refer to negligence, the intention to contract away liability for one's own negligence must be set forth in specific and unequivocal terms. The contract, taken in its entirety, must unambiguously give rise to the conclusion that the 'unmistakable intent' is to absolve one of the parties of liability for his own negligence.[141]

It is important to mention, however, that where an aircraft manufacturer may disclaim liability or limit remedies in regard to another entity such as an airline with whom he is in privity of contract, he is in no way in a position to disclaim liability against third party passengers.[142] Passengers, are not bound by any contractual arrangements that are made between aircraft manufacturer and airlines. Passengers always maintain an action in torts against aircraft manufacturer for breaching his duty of due care in designing or constructing his airplane.

5. Indemnity and Contribution

Under the doctrine of indemnity, where a party has incurred liability he may, recover all he has been forced to pay from another person who is found to be primarily responsible. The doctrine of indemnity is designed to relieve the "morally" innocent party from the burden of loss and to shift it entirely to the one which actually caused it.[143] The doctrine of contribution on the other hand permits a tortfeasor who pays more than his fair share of judgment to recover from another tortfeasor a pro rata share of the judgment.[144] Thus, the difference between indemnity and contribution is that; contribution apportions the loss among tortfeasors and indemnity shifts the entire loss from one party to another.[145]

At common law there was no right to contribution among joint tortfeasors. Either or both parties could be held liable for the full amount of the damage. Application of this rule, however, may lead to inequities and unfair imposition of liability among parties where one has slight negligence and another has gross negligence.[146] This rule has recently been changed in the United States by introducing certain systems of contribution. This development is briefed in the following:

> A majority of states now permits contribution among joint tortfeasors, and generally, this right is governed by statute. Although there are variations among the statutes, they are similar in several important respects. Most provide that there is no contribution in favor of persons who commit willful or intentional torts. Most also provide that the

> contribution defendant must be a tortfeasor, and originally liable to the plaintiff. Finally, most of the contribution statutes provide that each tortfeasor is required ultimately to pay his pro rata share of the damages. In a few jurisdictions, the distribution of the liability is in proportion to each tortfeasor's comparative fault. Generally, however, the pro rata share is determined by dividing the plaintiff's damages by the number of tortfeasors responsible for the loss.[147]

A typical aviation crash usually involves more than one segment of the aviation industry. The airline, the air traffic control, the prime manufacturer of the aircraft, the manufacturer of a component part and others can potentially be involved. When a manufacturer of an aircraft or component part is held liable jointly with other defendants but forced to pay the whole judgment he naturally has a right to seek contribution from the other parties in the industry.[148]

E. Conclusion

While warranty liability is essentially based on breach of a contractual relationship, negligence liability is imposed by the law. An aircraft manufacturer is liable for negligence in the design, manufacturing, testing, inspecting or warning about a product which may inflict harm to users or anyone in the vicinity of that product's use. Negligence in that respect is the failure of an aircraft manufacturer to exercise the standard of care which would be exercised by a reasonable expert man in the circumstances. Since an aircraft can potentially cause great extent of damages to persons and to property the standard of the duty of care which is imposed upon aircraft manufacturer is correspondingly great.

Proving aircraft manufacturer's negligence in a products liability claim is extremely difficult. Beside the complex technological aspect involved in such an endeavor, the nature of an aircraft crash and its disintegration to thousands of pieces upon impact makes it hard if not impossible in some instances. Under certain conditions the doctrine of res ipsa loquitur can be utilized to aid plaintiffs.

The negligence theory and its role in the law of product liability is diminishing. The advent of the doctrine of strict liability and its proliferation has underminded the theory of negligence and its importance in the field of aviation product laibility litigation.

FOOTNOTES
(Chapter Four)

[1]Maynard v. Stinson Aircraft Corp., 1940 U.S. Aviation Reports 71, 1 Avi. 698 For an overview of the early history of litigation involving aircraft manufacturers see C. S. Rhyne, Aviation Accident Law, (1947) at 97-102.

[2]R. D. Hursh & H. J. Bailey, American Law of Products Liability 2d (1974) Vol. I, at 144.

[3]217 N.Y. 382, 111 N.E. 1050 (1916).

[4]See Mfg. Co. v. Hodges (Miss. 1966) 189 So.2d 113.

[5]For a short but informative overview of the law of negligence in products liability and its development see W. Prosser, Law of Torts 4th Ed. (1971) at 641-650.

[6]See Kimble & Lesher Product Liability (1979) at 119. See also G. H. Fridman, Introduction to the Law of Torts at 44-45. See also Prosser, Supra, note 3 at 150.

[7]Hursh & Bailey, Supra, note 2 at 145.

[8]Restatement (Second) of the Torts Sec. 395 (1965).

[9]63 Am. Jr. 2d - Product Liability at 35-36 (1972).

[10]Ibid.

[11]See Hursh & Bailey, Supra, note 2 at 145-146.

[12]See Kimble & Lesher, Supra, note 6 at 19.

[13]The Am. Jur. 2d. (1972) at 41. The following case of C. D. Herme, Inc. v. R. C. Tway Co. (294 SW 2d 534) has been cited. This case deals with the nature of reasonable care required of motor vehicle manufacturer.

[14]Ibid.

[15]See generally Hursh & Bailey, Supra, note 2 at 173-176.

[16]Kimble & Lesher, Supra, note 6 at 122-23.

[17]Ibid.

[18]Dean v. G.M.C. 301 F. Supp. 187 (E.D. La. 1969) cited by Kimble & Lesher, Supra, note 6 at 123.

[19]Gleich v. G.M.C. 2q Ohio App. 2d 28, 277 N.E. 2d. 566, (1972) cited by Kimble & Lesher, Supra, note 6, at 123.

[20]Saxton v. McDonnell Douglas Aircraft Co., 428 F. Supp. 1047.

[21]See Prosser, Supra, note 5 at 671-672.

[22]The Restatement (Second) of Torts Sec. 431 (1965).

[23]See for example Boeing Airplane Co. v. Brown, 291 F.2d 310; Manos v. Trans World Airlines, Inc. 324 F. Supp. 470; Kritser v. Beech Aircraft Corp. 479 F.2d 1089, Saxton v. McDonnell Douglas Aircraft Co., 428 F. Supp. 1047.

[24]See 2A Corpus Juris Secundum - Aeronautics & Aerospace at 259-260 (1972).

[25]Corpus Juris Secundum cites the following cases at Vol. 2A 260 (1972): Boeing Airplane Co. v. Brown, 291 F.2d 310, Kendrick v. Piper Aircraft Corp. 265 F.2d 482, Goldsmith v. Martin Marietta Corp. 211 F. Supp. 91.

[26]Ibid.

[27]Boeing Airplane Co. v. Brown., 291 F.2d 310.

[28]See Classification made by S. M. Speiser & C. F. Krause, Aviation Tort Law (1979) at 486-502; see also L. S. Kreindler, Aviation Accident Law (1974) at Vol. I Sec. 7.02.

[29]For a detailed discussion of manufacturers duty to use due care see generally Hursh & Bailey, Supra, note 2 at 143-177; see also 63 Am. Jr. 2d - Product Liability at 37 (1972).

[30]Boeing Airplane Co. v. Brown, 291 F.2d 310.

[31]Nicklaus v. Hughes Tool Co., 417 F.2d. 983.

[32]Northwestern Airlines v. Glenn L. Martin Co., 224 F.2d 120 (1955). Montgomery v. Goodyear Tire and Rubber Co., 231 F. Supp. 447.

[33]Nicklaus v. Hughes Tool Co., 417 F. 2d 983 (8th Cir. 1969).

[34]Noel v. United Aircraft Corp. 219 F. Supp. 556.

[35]Northwestern Airlines v. Glenn L. Martin Co., 224 F.2d 120 (1955).

[36]Ibid., at 123.

[37]Beech Aircraft Corp. v. Harvey, 558 P.2d. 879 (1976).

[38]Ibid.

[39]335 F. Supp. 1104 (S.D.New York 1971).

[40]189 N.W. 2d. 499 (Minn. 1971).

[41]417 F.2d 983 (8th Cir. 1969).

[42]192 A.2d 913 1963.

[43]For a discussion of the manufacturer duty to design a safe product see generally: Pawlak, Manufacturer's Design Liability: The Expanding Frontiers of the Law. 19 Defense L.J. 143, Noel, Manufacturer's Negligence of Design or Directions for Use of a Product, 71 Yale L.J. 816, Keeton, Manufacturer's Liability: The Meaning of "Defect" in the Manufacture and Design of Products, 20 Syracuse L.R. 559. For aircraft manufacturer's duty to design a safe aircraft and review of cases involving this question see Abranson, Defining the Design Defect in Aircraft Products Liability Cases. 45 J. Air L. (1980) at 167.

[44]Restatement (Second) of Torts Sec. 398 (1965).

[45]Ibid.

[46]Hursh & Bailey, Supra, note 2 at Vol. 2, p. 249.

[47]Maynard v. Stinson Aircraft Corp., 1940 U.S. Aviation Reports 71.

[48]For a short but informative overview of potential problems in aircraft design see R. F. Schaden, Product Liability and the Airplane Manufacturer (1969) Mich. State Bar J. at 53 (Mr. Schaden holds a degree in aeronautical engineering, a Juris Doctor and a pilot certificate.)

[49]Ibid., at 55.

[50]Ibid., at 55.

[51]Ibid., at 55-58.

[52]See for example R. F. Schaden, Aircraft Crashworthiness (1978) 14 Trial Law at 40; see also G. Galerstein, A Review of Crashworthiness (1979) 45 J. Air L. 187. Aircraft Crashworthiness has already come up before the California Court of Appeal in the case of McGee v. Cessna Aircraft Co., 82 Cal. App. 3rd 1005, 147 Cal. Rptr. 694 (1978).

[53]See the Crashworthiness in Chapter Five of this study.

[54]324 F. Supp. 470 (N.D. Ill. 1971).

[55]342 F.2d 232 (D.C. Del. 1964).

[56]324 F. Supp. 470 (N.D. Ill. 1971).

[57]Ibid., at 478.

[58]Ibid., at 488.

[59]342 F.2d 232 (D.C. Del. 1964).

[60]Ibid.

[61]See generally Hursh & Bailey, Supra, note 2, Vol. 2. 142-5.

[62]For a discussion of this duty and its application in the different jurisdictions in the U.S.A. see Hursh & Bailey, Supra, note 2, Vol. 2. 147-162.

[63]Restatement (Second) of Torts Sec. 388 (1965).

[64]Ibid., Sec. 388.

[65]For a treatment of the subject of aircraft manufacturer duty to use due care in warning and citation of several cases see S. M. Speiser & C. F. Krause, Aviation Tort Law (1979) Vol. 2. 498-500.

[66]Noel v. United Aircraft Corp. 342 F.2d 232, 3rd Cir. 1964, Braniff Airways, Inc. v. Curtis-Wright Corp. (2nd Cir. 1969).

[67]Tayman v. Executive Aero, Inc. 166 N.W.2d 584 (Minn. 1969). In this case aircraft manufacturer was held liable for failing to warn.

[68]Noel v. United Aircraft Corp., 342 F.2d 232 (3rd Cir. 1964).

[69]Tayman v. Executive Aero, Inc., 166 N.W.2d 584 (Minn. 1969).

[70]DeVito v. United Airlines, Inc., 98 F. Supp. 88 (D.C. New York 1951).

[71]Tayman v. Executive Aero, Inc., 166 N.W. 2d 584 (Minn. 1969).

[72]Ibid., at 586.

[73]DeVito v. United Airlines, Inc., 98 F. Supp. 88 (D.C. New York 1951).

[74]Comstock v. General Motors Corp., 358 Mich. 163, 99 N.W.2d 627. In this case it was decided that since automobile manufacturer had learned about defective power braking system on a certain model of car he had a duty to take steps to warn purchasers of such a dangerous situation.

[75]Noel v. United Aircraft Corp., 342 F.2d 232 (3rd Cir. 1964).

[76]Ibid.

[77]Ibid.

[78]Braniff Airways, Inc. v. Curtis-Wright Corp., 411 F.2d 451 (2d Cir. 1969).

[79]Ibid., at 453.

[80]Noel v. United Aircraft Corp., 342 F.2d 232 (3rd Cir. 1964).

[81]For an overview of evidence and burden of proof in products liability in general see 63 Am. Jur. 2d - Product Liability at 22-35 (1972).

[82]Ibid.

[83]2A Corpus Juris Secundum Aeronautics & Aerospace at 264 (1972).

[84]Ibid., at 264-266.

[85]Ibid.

[86]For a discussion of the doctrine of res ipsa loquitur and its application in product liability in general see 63 Am. Jur. 2d (1972) - Product Liability at 94-96; see also Hursh & Bailey Supra, note 2, Vol. I at 359-390. See also Fiedler, Res ipsa Loquitur in Product Liability Cases (1966) ABA Sec. Ins. N & CL 191., see also Reed, Product Liability: Res Ipsa Loquitur (1963) Ins. L.J. 4. See also Weston, Defense Lawyer Looks at Product Liability and Res Ipsa Loquitur. 29 Ins. Counsel J. 576; see also Griffith, Doctrine of Res Ipsa Loquitur in Negligence Actions - Old Solutions for New Problems 48 Miss. L.J. 259-305 (1977).

[87]G. A. Peters, Product Liability and Safety.

[88]Ibid., at 15-16.

[89]63 Am Jur 2d - Product Liability at 94 (1972).

[90]Peters, Supra, note 87 at 22.

[91]335 F. Supp. 1104 (D.C. N.Y. 1971).

[92]200 F. Supp. 839 (D.C. N.Y. 1961).

[93]Ibid., at 840.

[94]194 So.2d 436.

[95]Ibid., at 439.

[96]Bruce v. Martin-Marietta Corp. 544 F.2d 442.

[97]Federal Aviation Act - 49 U.S.C.A. Sec. 1441.

[98]Manos v. Trans World Airlines, Inc. 324 F. Supp. 470.

[99]404 F.2d 1152.

[100]324 F. Supp. 470.

[101]291 F.2d 310.

[102]Prashker v. Beech Aircraft Corp. 258 F.2d 602.

[103]Holcomb v. Cessna Aircraft Co., 439 F.2d 1150; Nicklaus v. Hughes Tool Co., 417 F.2d 983.

[104]Lindsay v. McDonnell Douglas Aircraft Corp., F. Supp. 257.

[105]113 Cal. Rptr. 416.

[106]544 F.2d 442.

[107]291 F.2d 310.

[108]355 F. Supp. 1104.

[109]352 F. Supp. 633.

[110]For a brief overview of contributory negligence see 63 Am Jur 2d - Product Liability at 42 (1972); see also Hursh & Bailey, Supra, note 2 at 391-404; see also Bushnell, Illusory Defense of Contributory Negligence in Product Liability, 12 Cleveland-Marshall L. Rev. 412; see NOTE: Contributory Negligence - An Integral Part of Product Liability Cases (1968) 56 Illinois Bar J. at 404.

[111]See Hursh & Bailey, Supra, note 2 at 392.

[112]Kimble & Lesher, Supra, note 6 at 265.

[113]63 Am Jur 2d (1972) - Product Liability at 43.

[114]Restatement (Second) of Torts (1965) Sec. 463 & 467.

[115]See for example: Prosser, Comparative Negligence (1953) 51 Mich. L. Rev. 465 (1953), See also Leflar, The Declining Defense of Contributory Negligence (1946) 1 Ark. L. Rev. 1; See also F. Harper & F. James, Law of Torts (1956) Sec. 22.3 at 1207-08 (1956); See also W. Prosser, Law of Torts 4th Ed. at 433.

[116]See F. Harper & F. James, Law of Torts (1956) at 1207.

[117]See generally V. Schwartz, Comparative Negligence (1974). See also R. A. Epstein, Plaintiff's Conduct in Product Liability Actions: Comparative Negligence, Automatic Division and Multiple Parties (1979) 45 J. Air L. 87.

[118]Ibid., at 31.

[119]See J. Goldberg, Judicial Adoption of Comparative Fault (1979) 10 New Mexico Law Rev. 3, 7.

[120]The following states have adopted the doctrine of comparative negligence either by statute or by case law: Alaska, Arkansas, California, Connecticut, Colorado, Florida, Georgia, Hawaii, Idaho, Kansas, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Dakota, Okalhoma, Oregon, Pennsylvania, Texas, Utah, Vermont, Wisconsin and Wyoming.

[121]258 F.2d 602.

[122]224 F.2d 120.

[123]United Aircraft Corp. v. Pan Am World Airways, Inc. 199 A.2d 758.

[124]See Hursh & Bailey, Supra, note 2 at 410.

[125]Ibid.

[126]The Restatement (Second) of Torts (1965) Sec. 401 Comment K.

[127]Massman-Johnson v. Gundolf, 484 S.W.2d 555, see Restatement (Second) of Torts (1965) Sec. 496 D, Comment C.

[128]Ibid.

[129]P. Coie, The Present State of Law in the United States From Standpoint of Industry in Bockstiegel, Product Liability in Air and Space Transportation (1977) at 109, 121.

[130]See Hursh & Bailey, Supra, note 2 Vol. I at 404-405. See also D. Fischer, Role of Misuse in Products Liability Litigation (1979) 35 Mo. Bar J. 304-11.

[131]63 Am Jur 2d - Product Liability at 107,108 (1972).

[132]General Motors Corp. v. Hopkins, 548 S.W.2d 344, 351 (Tex. 1977). See NOTE: Defense of Misuse and Comparative Causation in Products Liability (1977) 14 Houston L. Rev. 1115-25.

[133]General Motors Corp. v. Hopkins, 548 S.W.2d 344, 351.

[134]J. P. Coie, The Present State of the Law in the United States from the Standpoint of Industry. In Bockstiegel, Product Liability in Air and Space Transportation (1977) at 109, 121.

[135]An example of a disclaimer which was found enforceable is in Delta Airlines, Inc. v. McDonnell Douglas Co., 503 F.2d 539.

[136]See generally E. M. Kroll, Aviation Products: Commercial Disclaimers (1979) Ins. L. J. 615-629; see also NOTE: Products Liability in Commercial Transactions (1976) 60 Minn. L. Rev. 1061-85, see also NOTE: Commercial Transactions - Contractual Limitations of Liability - Uniform Commercial Code - Section 402A (1977) 15 Duquesne L. Rev. 565-72, see also M. B. Metzger, Disclaimers, Limitations of Remedy and Third Parties (1979) 48 U. Cin. L. Rev. 663-97.

[137]Disclaimers of negligence are not prohibited by implication of the language of Uniform Commercial Code Sec. 1-102(3), Disclaimers may be given effect under Uniform Commercial Code Sec. 2-316, 2-317, 2-318.

[138]See generally Cahpter Three of this study particularly the section which deals with contractual limitation of liability.

[139]Delta Airlines Inc. v. McDonnell Douglas Co., 503 F.2d 539.

[140]Murphy v. Grumman American Aviation Corp. 8514 Products Liability Reporter (C.C.H.) Case No. 8514 July 3, 1979.

[141]Ibid.

[142]According to the Uniform Commerical Code Sec. 2-316(2) an exclusion of damages for the consumers personal injuries

is prima facie unconscionable and therefore invalid. See for example Champlin v. Oklahoma Furniture Mfg. Co., 269 F.2d 918.

[143]See T. Conklin, J. W. Adler & S. W. Hoyne, Indemnity and Contribution in the Litigation of Aerial Application Claims: Looking for a Deeper Pocket (1980) 45 J. Air L. 375, 384.

[144]See generally Prosser, Supra, note 5, at 305.

[145]See Kimble & Lesher, Supra note 6 at 302.

[146]Ibid.

[147]Ibid., Supra, note 143 at 385.

[148]See generally D. D. Oldham & W. L. Maynard, Indemnity and Contribution Between Strictly Liable and Negligent Defendants in Major Aircraft Litigation (1977) 43 J. Air L. 245-70.

CHAPTER FIVE

AIRCRAFT MANUFACTURERS LIABILITY IN TORT: STRICT LIABILITY

A. Initiation and Rationalization

The strict liability in torts is the newest weapon in the arsenal of the products liability law. The doctrine of strict liability which was announced by the California Supreme Court's decision in the landmark case of Greenman v. Yuba Power Products, Inc.,[1] has left a far-reaching impact upon the development of the field of products liability. The Greenman Court speaking through Justice Traynor said that a manufacturer is strictly liable in tort when an article he places on the market, knowing that it is to be used without inspection for defects, proves to have a defect that causes injury to a human being.[2] The California Supreme Court was finally persuaded, after almost eighteen years had elapsed, to accept the arguments Justice Traynor had advanced in Escola v. Coca Cola Bottling Co.[3] in 1944. Justice Traynor argued in this decision:

> In my opinion it should now be recognized that a manufacturer incurs an absolute liability when an article that he has placed on the market, knowing that it is to be used without inspection, proves to have a defect that causes injury to human beings. The risk of injury can be insured by the manufacturers and distributed among the public as a cost of doing business.[4]

The Greenman decision was readily accepted by other jurisdictions in the United States and in 1965, the American Law Institute promulgated the Restatement of Torts which embodied the doctrine of strict liability in Section 402A. Today, an overwhelming majority of states has either specifically adopted Section 402A[5] of the Restatement of Torts or its equivalent.[6] The doctrine of strict liability in torts is at present well-established in the American jurisprudence.

Strict liability is generally regarded as a doctrine rooted in considerations of public policy.[7] One of the most frequently stated rationalizations for imposing strict liability on the manufacturers is that public interest in human safety demands the maximum possible protection for consumers or users of products. The manufacturer is in a better position to bear the costs of injuries resulting from defective products and to distribute such losses to the public as cost of doing business. On the other hand, the manufacturer is technically in the best position to discover and correct unreasonably dangerous defects before it reaches the consumers or users who are powerless to deal with these problems. Thus, imposing liability in this manner will eventually force manufacturers to produce safer products.[8]

In achieving these goals the basic legal vehicle brought about by introducing the doctrine of strict liability is shifting the emphasis from the manufacturer's conduct in making a product to the product itself and its performance.

Thus, in a litigation of a product liability claim predicated in strict liability, consideration is given to the product itself, its characteristics and performance. In litigation based on negligence consideration is, however, placed upon the manufacturer's act, his negligence or fault in making that product. Thus, according to strict liability, a manufacturer may be held liable even though he has exercised all possible care in the manufacturing and sale of his product.[9]

B. Nature and Elements

Most jurisdictions in the United States have either adopted the strict liability doctrine as articulated by the Restatement (Second) of Torts in Section 402A or its equivalent.[10] This section will, therefore, focus on the text of the Restatement (402A) which provides:

(1) One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if

(a) The seller is engaged in the business of selling such a product, and

(b) It is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.

(2) The rule stated in Subsection (1) applies although

(a) the seller has exercised all possible care in the preparation and sale of his product, and

(b) the user or consumer has not bought the product from or entered into any contractual relation with the seller.[11]

The elements of a strict liability action under Section 402A may be summarized as follows: the product must be defective and unreasonably dangerous; the product must reach the user without substantial change in its condition from the time it was originally sold, and be the proximate cause of the injury.[12]

1. Defective and "Unreasonably Dangerous" Condition of Product

In order for a product to come within the scope of strict liability it must be proved so defective as to be unreasonably dangerous. The determination of whether a product is defective, or unreasonably dangerous, generally a difficult task, is obviously dependent on the facts and the product involved in the particular case. The concept is so broad that no general definition seems possible to fit every product.[13] Nevertheless, attempts have been made by both courts and legal scholars to establish some, objective and uniform standards of defectiveness. These standards are, however, mostly borrowed from other areas such as negligence and warranty. Generally, four standard tests are available to help determine this question.[14] First, the "Merchantability Test of Defectiveness" which encompasses the rule that a product is defective under strict liability when it is not reasonably fit for the ordinary purposes for

which it is used.[15] The second is the "Reasonable Consumer Expectations" test.[16] This test focuses on the reasonable expectations contemplated by the user and the surprise element of the danger involved. A product is defective within strict liability when it does not meet such expectations. According to the third test "Deviation from the Norm"[17] which has been advocated by some legal scholars, a product is defective when it fails to match the average quality of similar products. Thus, where a normal sample of that product would not have injured plaintiff but "the peculiarities of the particular product did cause harm, the manufacturer is liable for injuries caused by this deviation."[18] The fourth and final test is the "Nelgigence Equivalency."[19] This test starts with the premise that the defendant manufacturer knew or should have known the dangerous condition of the product and then asks whether he was negligent in putting it on the market or supplying it to someone else. Assumption of knowledge on the part of the defendant in that respect relieves an injured plaintiff of many of the evidentiary aspects inherent in a negligence cause of action.[20]

The courts in adjudicating product liability claims have used one of the above mentioned formulas and others in determining the"defective unreasonably dangerous" condition of the products involved.[21] Among the other standards and formulas used by the courts are the following: a product may be defective where it creates an unreasonable risk of harm;[22] where it failed to operate reasonably, adequately and

safely;[23] where the product in its performance is likely to become useless.[24] In addition a product may be deemed defective notwithstanding the fact that it meets or exceeds industry standards.[25]

The concept of the product being "unreasonably dangerous" is essential to the rule of the doctrine of strict liability as stated in the American Restatement (Second) of Torts.[26] Yet, as American courts continued to develop this doctrine and proliferate its applications some courts especially in the State of California "have tended to do away with the requirement that a defect be "unreasonably dangerous" and to separate it from the general rule. In two cases decided by the Supreme Court of California in 1972[27] and 1978[28] the court ruled that the "unreasonably dangerous" element which Section 402A of the Restatement (Second) of Torts introduced into the definition of a defective product should not be incorporated into a plaintiff's burden of proof in a product liability action. This new rule, the court said, applied to alleged "design defects" as well as "manufacturing defects."[29] Other American courts seem to be following this trend and the state of law relating to this requirement is not clear as some courts do not only consider this element distinct from a condition of a product but also "refuse to consider it prerequisite to imposing strict liability."[30]

2. Tracing the Defect Back to the Manufacturer

Establishing that the defect existed at the time it left the possession or control of the manufacturer is

essential to a strict liability action.[31] Certain categories of product liability claims do not normally generate very much difficulty in proving this element. Examples of these categories of claims are those claims which are based on defective design, inadequacy of warning or instructions relating to the use of a product. These types of defects, exist at the time the product leaves the manufacturing plant. This element is, therefore, critical in claims involving the area of manufacturing defects.

Few important problems relating to tracing a defect back to the manufacturer normally cause difficulty. First, the elapse of time between manufacturing and the time of the failure of the product.[32] When a product has been in continued use for a significant period of time tracing a defect back to the manufacturer may be a difficult task. The other problem is related to the effect of changes made on the product after leaving the control of the manufacturer.[33] The Restatement (Second) of Torts contemplates that "the product is expected to, and does reach the user or the consumer without substantial change in the condition in which it is sold" in order for strict liability to apply to that claim.[34] It is evident that not every change in the product will relieve the manufacturer from liability. Rather those "substantial" changes only.[35] Substantial change is described as "material" change.[36]

Proof of modification, or improper handling of a product alleged to have caused injury after it left the

control of the seller or the manufacturer, has been held to bar strict liability recovery.[37] However, there are cases in which manufacturers or sellers of a product have been held liable even though the product was altered or modified. Rulings in these cases is suggested to have established three basic considerations: first, the original defect, not the alternation or modification was the proximate cause of the injury; second, that the alteration or modification was not an intervening, superseding cause of the injury but rather, combined with the original defect, was a concurrent cause; and finally that the manufacturer should have anticipated the alteration or modification and warned of its dangers.[38]

3. Causation

Recovery in a strict liability claim is contingent upon plaintiff's proof that the defective and unreasonably dangerous condition of the defendant's product is the proximate cause of the injury or the damages complained of.[39]

Proximate cause has been defined "as the cause which in natural and continuous sequence, unbroken by any efficient intervening cause, produces the injury, and without which the injury would not have occurred."[40]

Determining the element of causation in product liability claims, in some instances, is difficult. One legal scholar describes it as "question that has been a continuing source of confusion and uncertainty to lawyers, judges and legal writers."[41] One difficult aspect of this

element presently causing difficulty in the courts is where the defect did not cause the accident which occurred, but merely enhanced the injuries resulting from the accident.[42] This question arises mostly in claims related to the "crash-worthiness". This concept was originally developed in motor vehicle accidents but more recently expanded to aircraft accidents as will be seen later.

C. Various Types of "Defects"

"Defects" in aviation products may fall within one of the following three categories: manufacturing defects, design defects and inefficient or defective warnings and instructions.[43]

1. Manufacturing Defects

A manufacturing defect may be represented in the inefficiencies or flaws which occur during the construction or manufacturing process of an aircraft or one of its component parts. It generally occurs when a finished product does not comport with the design standards of the manufacturer.[44] The product comes out of the assembly line somewhat different from other similar products. The distinction between manufacturing defects and design defects has been frequently drawn by both the courts and the commentators.[45] Several elements are provided. Most important is that design defects are distinguished from manufacturing defects on the basis of whether the defective condition was intended or not. Manufacturing flaws are inadvertent, whereas design defects

are intended. Sometimes, it is also argued, that the difference between design defects and manufacturing defects is based on whether the defect affects a whole line of products.[46] Thus, in a design defect case plaintiff is alleging not only that a particular product is defective, but that every single product in the entire product brand is defective because all were improperly designed.[47]

A manufacturing defect is one of the common bases for claiming products liability against the manufacturers. In the area of aviation products liability many claims may be characterized as falling within this category. A recent example is Charlie Hairston Aircraft, Inc. v. Beech Aircraft[48] which illustrates this type of defect. In Charlie Hairston Aircraft v. Beech Aircraft[49] the court entered a judgment against Beech Aircraft on the issue of liability. This judgment against Beech Aircraft on the issue of liability. This judgment has referred to the presence of multiple longitudinal cracks on the inner diameter of the rod, a component of airplane's nose-gear assembly which served to extend and retract the landing gear. This situation has created an unreasonable risk that the rod would fail prematurely under normal use. The rod supposedly broke while the pilot was attempting to retract nose gear causing damage to aircraft during landing. The court based this judgment on its finding that the presence of these multiple longitudinal cracks rendered the forward retract arm "defective". A product is considered defective or unreasonably

dangerous, the court noted, "if a reasonable seller would not sell the product if he knew of the risks involved or the risks are greater than a reasonable buyer would expect."[50]

2. Defective Design

Flaws or inefficiencies in the product itself due to manufacture are not the only defects which may fall within the scope of application of the strict liability doctrine. The Greenman v. Yuba Power Products, Inc.,[51] the landmark case which initiated the doctrine in 1962 specifically noted that a manufacturer would be responsible under strict liability in tort for design, as well as manufacturing defects.[52]

A design defect usually affects a whole line of products.[53] It is a type of defect which results from a conscious choice or a plan of the manufacturer based on weighing several competing factors such as safety, utility, attractiveness and cost.[54] The element of conscious choice, however, is not always a factor in design defects for the manufacturer may simply overlook a safety consideration in designing a product.[55]

Determination that the basic design of a product is defective has clearly far-reaching consequences on the manufacturer and his business. Thus, where a whole product line of products is found defective the manufacturer will not only be faced with numerous suits for injuries but also he may be compelled to recall all of the items involved in the defective design and even to abandon manufacture of the

product.[56] This may explain the reluctance of courts and jury to impose liability for claims based on design defects.[57] On the other hand, some commentators have questioned the wisdom of submitting the whole matter of design defects to judicial determination where a lay judge or jury have to review the design choices and in some instances overrule the knowledge and judgment of the experts in a large and sophisticated industry. This matter, it is argued, is better left to legislatures.[58]

At present the general rule is that a defective design which creates an unreasonable risk of danger may become the basis of a strict liability action against the manufacturer. Such a defective design may occur in several forms; these include concealed dangers, inadequacy of strength and durability of materials used in constructing and manufacturing of the product, absence of safety devices or features and also the lack of crashworthiness.[59]

Defining the standards by which a manufacturer would be held liable in strict liability action in pursuit of a defective design depends upon each particular jurisdiction. And, the elements which are considered to determine whether a product is "unreasonably dangerous" due to a defective design are various. Perhaps the most widely cited are the following seven criteria:

(1) The usefulness and desirability of the product - its utility to the user and to the public as a whole.
(2) The safety aspect of the product - the likelihood that it will cause injury, and the probable seriousness of the injury.

(3) The availability of a substitute product which would meet the same need and not be as unsafe.
(4) The manufacturer's ability to eliminate the unsafe character of the product without impairing its usefulness or making it too expensive to maintain its utility.
(5) The user's ability to avoid danger by the exercise of care in the use of the product.
(6) The user's anticipated awareness of the dangers inherent in the product and their avoidability, because of general public knowledge of the obvious condition of the product, or of the existence of suitable warnings or instructions.
(7) The feasibility, on the part of the manufacturer, of spreading the loss by setting the price of the product or carrying liability insurance.[60]

The general proposition that a design defect should render the product "unreasonably dangerous" should be met in order to impose strict liability. As mentioned earlier, however, some courts in the United States have attempted to develop and, enlarge this concept and by so doing, have departed from the traditional "unreasonably dangerous" rule. This move is led by the California Supreme Court which rejected the requirement that the defect be unreasonably dangerous to the user or consumer. This development was announced first in Cronin v. J. B. E. Olson Corp.,[61] and more recently in Barker v. Lull Engineering Co.[62] which involved a defective design. In the Barker case an injured operator of a high-lift loader brought a personal injury action against the manufacturer. The plaintiff alleged that a design defect precipitated the accident in which the load tipped and the falling lumber struck him. The Superior Court of San Francisco entered a judgment on a jury verdict for the defendant. The plaintiff appealed. The Supreme Court reversed the judgment and decided for injured plaintiff.

The Court in its decision laid down two alternative tests for determining that a product is defective in design: first, a product may be found defective in design if the plaintiff establishes that the product failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner. Second, a product may alternatively be found defective in design if the plaintiff demonstrates that the product's design proximately caused his injury and the defendant fails to establish, in the light of the relevant factors, that, on balance, the benefits of the challenged design outweigh the risk of danger inherent in such design. Whether the courts of other jurisdictions in the United States will follow this new trend in cases involving defective designs is not clear. It is important to remember that the same court has initiated the new doctrine of strict liability in the landmark case of Greenman v. Yuba Power Products, Inc.[63] in 1962 and now this doctrine is virtually adopted by all jurisdictions of the United States.

In the area of aviation product liability there have been many significant strict liability cases involving aircraft design defects. Definition of aircraft design defect as a basis for imposing strict liability has generally followed the general rules.[64] Among these cases are: Lamon v. McDonnell Douglas Corp.,[65] Forsyth v. Cessna Aircraft Co.,[66] Kritser v. Beech Aircraft Corp.,[67] and Berkebile v. Brantly Helicopter Corp.[68]

3. Crashworthiness

Crashworthiness is generally considered a part of the engineering design process as compared to manufacturing.[69] Some commentators however treat problems and deficiencies associated with crashworthiness separate from those of the designing defects or manufacturing defects.[70] At present the requirement of crashworthiness is generally accepted in the law as a duty imposed on manufacturers of personnel carrying vehicles.[71]

According to the doctrine of crashworthiness, which was first recognized and developed in automobile cases, where injuries arising out of an accident are enhanced because of a design defect in the vehicle, the manufacturer may be held liable even though the defect did not cause the accident.[72] The doctrine emphasizes the proposition that lack of crashworthiness in the design of a vehicle may aggrevate the injuries caused by the original accident. Vehicles, therefore, should be designed to mitigate occupants' injuries resulting from foreseeable uses of the vehicle rather than enhancing the severity of such injuries.[73]

The duty to design a crashworthy vehicle has precipitated a divergence of views. The two landmark cases which reached contrary results on this issue are Evans v. General Motors Corp.,[74] and Larsen v. General Motors Corp.[75] The principal area of disagreement between the two decisions reached in these two cases involves the concept of intended use of the product. The two cases have dealt with automobile

accidents. In Evans the plaintiff alleged that the automobile was defective because it was designed with an "X" frame without side frame rails to protect the driver in the event of a side impact.[76] The Seventh Circuit, finding for the manufacturer, held that the manufacturer did not have a duty to design an accident-proof automobile[77] because collisions are not part of the intended use of an automobile. The court said:

> The intended purpose of an automobile does not include its participation in collisions with other objects despite the manufacturer's ability to foresee the possibility that such collisions might occur.[78]

Contrary to this decision the court in Larsen reasoned that it was entirely foreseeable, and almost expected that an automobile would be involved in an accident during its useful life. Thus, the manufacturer is under a duty to design the automobile so that it will be reasonably safe in the event of an accident.[79] Although automobiles are not made for the purpose of colliding with each other, the court reasoned, a frequent and inevitable contingency of normal automobile use will result in collisions of injury producing impact.[80] The court said:

> The intended use and purpose of an autmobile is to travel on the streets and highways, which travel more often than not is in close proximity to other vehicles and at speeds that carry the possibility, probability, and potential of injury-producing impacts. The realities of the intended and actual use are well known to the manufacturer and to public and these realities should be squarely faced by the manufacturer and the courts. We perceive of no sound reason, either in logic or experience, nor any command in precedent, why the manufacturer

> should not be held to a reasonable duty of care in the design of its vehicle consonant with the state of the art to minimize the effect of accidents.[81]

Although there is a split amont the various jurisdictions of the United States regarding the acceptance of the crashworthiness doctrine the trend is certainly growing toward its adoption.[82]

The doctrine of crashworthiness, its development and application was not, however, limited to the automobile industry. During the last few years its application has been extended to the field of aviation. This extension has long been advocated by the plaintiffs bar and also by commentators.[83] One commentator writing recently in a leading American Law Journal said:

> Airplane crashes involving commercial airliners' occur every year and eighty-five to ninety percent of these crashes occur during takeoff or landing. During those times, the airplane is at an extremely low altitude and is moving at a relatively slow speed. Because of these characteristics, passengers can survive the impact of a crash that occurs during takeoff or landing. People are often killed or injured, however, because the plane was not crashworthy.[84]

The aviation crashworthiness question has come before the courts in several cases. Among these cases Bruce v. Martin-Mareitta Corp.,[85] Williams v. Cessna Aircraft Corp.,[86] Eichstedt v. Cessna Aircraft Corp.[87] and McGee v. Cessna Aircraft Corp.[88] The last two cases are important and there will be discussed.

In Eichstedt v. Cessna Aircraft Corp.,[89] the plaintiff alleged that the plane was defectively designed because the lap belt was improperly installed and no shoulder harnesses

were provided. The court in deciding for the plaintiff awarded $900,000.00 to the survivors of the man killed in the crash. Although the court agreed that the pilot error was the cause of the accident, yet the court concluded that the defectively designed seatbelt caused the injuries and accordingly held Cessna liable.

In the case of McGee v. Cessna Aircraft Corp.,[90] Helen McGee was sitting in the left front seat of a 1968 model 177 Cessna Cardinal which crashed near San Diego, California. Upon impact she became unconscious and was the last to be removed from the aircraft. Due to severe burns that she received both legs were amputated later. Her injuries were almost entirely the result of the post-crash fire. McGee brought an action against the owner and the manufacturer of the aircraft for personal injuries suffered in the crash and the subsequent fire. The claim against the owner was settled and dismissed before trial.

McGee asserted two theories of liability against the manufacturer, the first charging negligence in the design of the aircraft and the second charging design defects rendering the manufacturer strictly liable for injuries proximately caused by the defect. Specifically, McGee asserted that the fuel system of the aircraft was inherently unsafe because it was highly susceptible to being ruptured in a crash landing. Once the system was broken, the fuel was likely to leak into the passenger compartment.[91]

After presentation of the evidence, the trial court instructed the jury on the issue of crashworthiness of the

aircraft in accordance with negligence principles but not strict liability. The jury returned a verdict in favor of the manufacturer. Upon appeal, however, the court reversed the jury's verdict for Cessna and held that the negligence instructions given by the trial court on the crashworthiness were erroneous. Furthermore the court held that any recovery from the manufacturer that may be awarded by the jury on trial would be diminished by the amount of the good faith settlement received from the owner of the aircraft.

The important development brought about by the McGee decision is that the court concluded that crashworthiness claims do not have to be based on negligence rather it is proper to proceed on the theory of strict liability. Considering the "liberal" attitudes of the courts of California in the application of strict liability this case may be the turning point for future cases involving aviation crashworthiness thereby opening new grounds in aviation product liability.[92]

4. Inadequate Instruction and Warning

A product may be deemed defective, although properly designed and manufactured, if it is unreasonably dangerous to place that product in the market without adequate instructions and warnings.[93] To be adequate, the warning or instruction, must be reasonably conspicuous and clear. Manufacturers must describe the dangers, and where pertinent, the means of avoiding it.[94] Failure to do so may provide basis for imposing strict liability upon the manufacturer or

the seller of any product.[95] This rule has long been established in the American jurisprudence. One court said:

> In the absence of adequate warning, liability may rise from use of an instrument not otherwise defective, since failure to warn may itself be the defect which causes injury.[96]

Since the potentially dangerous nature of the product when used without adequate instructions and warning makes the product defective, it is suggested, that the duty to warn arises only when the product is established to be unreasonably or inherently dangerous.[97] Consequently, failure to adequately instruct or warn against foreseeable risks or dangers may constitute basis for imposing strict liability.[98] This concept is adopted by the Restatement (Second) of Torts according to which, whenever the maker has reason to anticipate danger from a particular use of the product, there is a duty to give adequate notice of the dangers.[99] Manufacturers or sellers are under no duty, however, to provide warning for dangers which is obvious and known to consumers and users.[100]

Some courts suggest that a strict liability claim based on defective warning is no different from one in negligence. Other courts, however, have drawn a distinction between negligence and strict liability actions for failure to warn.[101]

In the field of aviation it is established that the seller of a product must provide with it every element necessary to make it safe for use.[102] Warning and instructions are essential elements. Further it is established

that if the product is defective and that the defect is the proximate cause of the plaintiff's injury, the seller of that product is strictly liable without proof of negligence.[103]

The question of warnings or instructions regarding the use or misuse of products and the risks or dangers associated with it has come before the courts in many aviation cases. Probably one of the best statements of law relating to warning and instructions which would render a product defective came about in Berkebile v. Brantly Helicoptor Corporation[104] (Supreme Court of Pennsylvania 1974). The court said:

> A 'defective condition' is not limited to defects in design or manufacture. The seller must provide with the product every element necessary to make it safe for use. One such element may be warnings and/or instructions concerning use of the product. A seller must give such warning and instructions as are required to inform the user or consumer of the possible risks and inherent limitations of his product. Restatement (Second) of Torts 402A, comment h. If the product is defective absent such warnings, and the defect is a proximate cause of the plaintiff's injury, the seller is strictly liable without proof of negligence.[105]

In practice, defective warnings and instructions as basis for imposing strict liability are particularly important in aviation product liability. Since by pursuing a claim on these grounds plaintiffs will avoid dealing with the difficult issue of proving defective design or defective manufacturer in the product involved in that litigation.

D. Defenses

1. Disclaimers

Disclaimers are generally not recognized in strict

products liability cases.[106] Comment "m" to Section 402A of the Restatement (Second) of Torts addresses the issue of contractual defenses in relation to the strict tort liability doctrine. This comment provides:

> The consumer's cause of action does not depend upon the validity of his contract with the person from whom he acquires the product, and it is not affected by any disclaimer or other agreement, whether it is between the seller and his immediate buyer, or attached to and accompanying the product into the consumers hand.[107]

Although this rule is generally adhered to in most jurisdictions of the United States some courts have under certain conditions, allowed disclaimers to bar an action based on strict liability.[108] Apparently, the courts took into considerations such as the type of damage involved, the status of buyer and the lack of overreaching or unfair surprise in the contract negotiations. Thus, where a disclaimer of strict liability is for pure economic loss or property damages and the parties concerned are of equal bargaining power the courts held such a disclaimer valid and enforceable.[109] Thus, disclaimers are an effective means for allocating economic or commercial loss or damages among commercial entities.[110]

The courts upheld disclaimers in many aviation product liability cases thereby barring actions in strict liability. Beside the Delta Airlines, Inc. v. McDonnell Douglas Corp.,[111] case and the other cases discussed in the preceding chapter[112] on the contractual liability, the ruling in Scandinavian Airline System v. United Aircraft Corporation[113] (9th Cir.

1979) indicates that this rule has become well-established. In Scandinavian Airlines[114] an action was brought by that airline against the manufacturer of aircraft engines to recover for property damages resulting from failure of two separate jet aircraft engines on two occasions. The trial court granted a summary judgment for the manufacturer and the airline appealed. The United States Court of Appeals, said that, airline, which dealt in commercial setting from position of relatively equal economic strength thus negotiated specifications of engines and allocated risks of loss, did not have claim in strict tort liability against manufacturer for property damage resulting from failure of two jet aircraft engines. Although the court did not deal specifically with the test of the disclaimer contained in the purchase agreement as the court did in the Delta[115] case the court emphasized in this case that there was two large companies contracting as to who, between the two equals, should bear the risk of loss. The court simply stated that there was no reason why the manufacturer should be made to bear the risk of loss without fault as between it and a large corporate buyer.[116]

2. Contributory Negligence, Assumption of Risk and Misuse

One important problem which has confronted the courts since the adoption of the strict liability concept as contained in Section 402A of the Restatement (Second) of the Torts has been the definition of the nature of conduct by the consumer

or the user of a product that would defeat recovery.[117] Contributory negligence, assumption of risk, misuse, the traditional categories of plaintiff's misconduct, each presented unique problems when applied in the context of a strict tort liability cause of action.[118]

A number of jurisdictions in the United States hold that contributory negligence is not a defense to an action in strict liability while assumption of risk and misuse are.[119] The trend, however, appears to be to treat all three categories as defenses in strict liability as well as in negligence actions.[120] This is especially so in jurisdictions which have adopted a comparative fault or comparative causation approach in strict product liability cases.[121]

The three categories, contributory negligence, assumption of risks and misuse of the product have many elements in common and have been dealt with earlier when discussing negligence. These three defenses have often been invoked in aviation product liability.[122]

3. Alteration and Modification of Product

Under Section 402A of the Restatement of Torts, the seller of a product is liable for damages resulting from any defect only if that product reached the ultimate user without "substantial change". The concept of substantial change of a product is not limited to deliberate alteration or modification of a product but rather extends to situations in which a substantial change results from the use of the product beyond its useful or anticipated life.[123] Many recently

enacted product liability statutes in the United States have incorporated this defense. This defense can have wide application in the area of aviation product laibility litigation.[124]

E. Damages

The word damages is described in Blacks Law Dictionary as "a pecuniary compensation or indemnity, which may be recovered in the courts by any person who has suffered loss, detriment, or injury, whether to his person, property, or rights through the unlawful act or omission or negligence of another."[125] It is evident from this definition that there are different sorts of harm for which the courts may allow recovery. Generally, in a successful products liability suit an injured person is offered three potential forms of recovery: (1) personal damages which compensate for death and bodily injuries; (2) property damages which compensate for injury to property and also for economic or commercial losses;[126] (3) beside these categories of actual damages which are directly or indirectly caused by a defective product the courts may also, under certain circumstances, award punitive damages.

Although the doctrine of strict liability in torts focuses initially on the area of personal injuries caused by defective products, a notable expansion of the doctrine has been made by the courts in recovery actions of property damages and economic losses.[127] In this process some courts have retained the requirement of physical damages as a

prerequisite to a products liability action.[128] While other courts, however, extended application to any type of damages caused by defective products including pure commercial or economic losses.[129] The controversy has mostly centered around the ultimate interpretation of the phrase "physical harm thereby caused to the ultimate user or consumer or to his property" as contained in Section 402A of the Restatement of Torts and its application to economic or commercial damages.[130] At present the general rule is that personal injury and property damages are recoverable in strict liability but economic losses are not.[131] In some instances, however, recovery of solely economic losses has been allowed by some courts as will be seen later.

1. Damages for Death and Personal Injuries

Damages recoverable for personal injuries include damages for bodily injuries,[132] emotional stress,[133] enhanced injury[134] and also wrongful death.[135] Recovery of damages for personal injuries has been established in the landmark case of Greenman v. Yuba Power Products, Inc.,[136] the case which initiated the doctrine of strict liability in torts.

Enhanced injury can be represented in situations in which the product neither causes nor contributes to the accide-t, but rather increases or enhances the injury after the initial accident. Granting damages for enhanced injury is a well-established principle in the American jurisprudence. Examples of enhanced injury may be seen in the cases studied earlier under crashworthiness.[137] Recovery of damages have

also been permitted by the courts for wrongful deaths pursuant to an action in strict liability.[138]

2. Property Damages

(a) Damage to the Product Itself

The question of damages to the product itself and the degree of coverage which may be recovered under the doctrine of strict liability is unsettled.[139] The question has come up in few jurisdictions in the United States and there seems to be a disagreement whether strict liability is applicable in an action for recovery of damages that occur to the product itself in the absence of personal injuries.[140] This disagreement among the courts is described by one commentator as follows:

> A few courts have disallowed strict tort recovery regardless of whether the damage suffered was due to the mere discovery of a defect in the product, or rather, to a defect in a part or the product which in turn caused damage to the remainder. Other courts indicate an inclination toward allowing recovery in either cases. Still others have made a distinction, allowing recovery in the latter case but not in the former....[141]

The courts have been confronted with this question in several aviation product liability cases. Perhaps the case of Mid Continent Aircraft Corp. v. Curry County Spraying Service, Inc.[142] decided by the Texas Supreme Court in 1978 is the best illustrative example. In this case, Curry County purchased a rebuilt spray plane "as is" from Mid Continent. The engine lacked a crucial part, however, and the plane crashed causing severe damages to itself but no physical harm to any person or any other property. The trial

court found the plane unreasonably dangerous as a result of the engine defect and held Mid Continent strictly liable for the damages to the plane. Upon appeal, the Supreme Court reversed the judgment and held that damage to the product itself was an economic loss. The case finally reached Texas Supreme Court, which upon ruling on it, discussed two issues. First, the Court discussed the competing theories of contract and torts; namely the implication of Texas Business and Commercial Code and the strict liability theory. Second, the court dealt with the issue of type damage or loss and considered it a critical factor in determining the outcome of the case. The court then concluded that consumer's protection upon which strict liability is based were not sufficiently strong to impose the application of that theory over the existing sales law remedies. And, that in a transaction between a commercial seller and a commercial buyer, when no physical injury has occurred, injury to the defective product itself is an economic loss and must be governed by the Uniform Commercial Code, the court said.[143]

(b) Damage to Property Other Than the Product

Damages to property other than the product itself is recoverable in strict liability in torts.[144] Section 402A of the Restatement of Torts contains the doctrine provides that the seller of an unreasonably dangerous defective product is liable for physical harm caused to the ultimate user or consumer or to his property.[145] There are many

product liability cases in which recovery of such damages were allowed pursuant to strict liability actions.[146]

(c) "Economic" or "Commercial Losses" Resulting from Damages to the Product Itself

The judicial inconsistency regarding the recovery of economic or commercial losses resulting from damages to the product itself can be illustrated in two conflicting holdings; one by the California Supreme Court and the other by the Supreme Court of New Jersey. The leading case espousing the view that strict liability recovery should not be allowed in pure economic loss cases is the California Supreme Court decision in Seely v. White Motor Co.,[147] which has been adopted by the majority of jurisdictions in the United States.[148] In Seely, plaintiff instituted a suit against the manufacturer of a truck seeking recovery of damages resulting from an accident and also damages for loss of profits in his business because he was not able to make normal use of the truck. A defective condition in the truck known as galloping caused the truck to overturn. The court held that the damages unrelated to the accident constituted economic loss and, therefore, were not recoverable in strict liability. The court said that the law of sales has been carefully articulated to govern the economic relations between suppliers and consumers of goods. And, that the history of the doctrine of strict liability indicates that it was designed, not to undermine the warranty provisions but, rather, to govern the distinct problem of physical injuries.[149]

Contrary to the Seely decision some jurisdictions have extended application of the doctrine of strict liability to economic or commercial losses. This extension has been pioneered by the ruling of the Supreme Court of New Jersey in the landmark case of Santor v. A & M Karagheusian, Inc.[150] In Santor the plaintiff sued the manufacturer for defective carpeting. No personal injuries or property damages have occurred. The Supreme Court of New Jersey, adopting a strong consumer protection approach, has extended strict liability to these losses and concluded that the manufacturer should be no different whether the damage occurs to the consumer or to his property. The court stated:

> The obligation of the manufacturer thus becomes what in justice it ought to be - an enterprise liability, and one which should not depend upon the intricacies of the law of sales. The purpose of such liability is to insure that the cost of injuries or damage, either to the goods sold or to other property, resulting from defective products, is borne by the makers of the products who put them in the channels of trade, rather than by the injured or damaged persons who ordinarily are powerless to protect themselves.[151]

The Santor decision has evidently marked a radical departure from the majority of jurisdictions which strictly interpreted the property damages in strict liability actions. Some courts relying on the Santor rationale have extended the application of strict liability to commercial or economic losses.[152] This position advanced by such courts, eventually recognizes that the concept of strict liability is broad enough to encompass any type of harm incurred by a defective product.

3. Punitive Damages

Punitive damages is one of the most controversial and troublesome aspects in the current aviation products liability litigation.[153] The concept of punitive damages is vague and uncertain.[154] Its meaning, as one commentator describes it, can vary from state to state or even from court to court.[155] The primary functions of the doctrine of punitive damages are generally directed toward punishing the defendant as well as detering him and others from similar wrongdoing.[156] The purpose for imposing punitive damage is stated by one court in the following:

> They are intended as punishment for gross misbehavior for the good of the public and have been referred to as 'a sort of hybrid between a display of ethical indignation and the imposition of a criminal fine.' Punitive damages are allowed on the ground of public policy and not because the plaintiff has suffered any monetary damages for which he is entitled to reimbursement; the award goes to him simply because it is assessed in his particular suit. The damages may be considered expressive of the community attitude towards one who willfully and wontonly causes hurt or injury to another.[157]

The origin of punitive damages can be traced back to ancient times. Some commentators suggest that the roots of this doctrine goes back in history to 2000 BC to the Code of Hammurabi. Others cite references to this doctrine in other less ancient codes.[158] The doctrine evolved in a common law fashion first in England during the eighteen century and then was transferred to the United States. And, it is in the United States that its application has been greatly expanded, much beyond any other common law jurisdiction.

At present, the overwhelming majority of jurisdictions in the United States allow punitive damages.[159] The doctrine has been adopted by the Restatement (Second) of Torts in Section 908 which provides that:

> Punitive damages may be awarded for conduct that is outrageous, because of the defendant's evil motive or his reckless indifference to the rights of others. In assessing punitive damages, the trier of fact can properly consider the character of the defendant's act, the nature and extent of the harm to the plaintiff that the defendant caused or intended to cause, and the wealth of the defendant.[160]

Although punitive damages awards in the field of product liability were relatively rare, the last decade witnessed a growing trend by the courts to grant these types of damages. This may be attributable to the growing tide of consumerism and also the growing realization that manufacturers have virtually exclusive access to much of the information necessary for effective control of dangers of defective products.[161]

At present punitive damages may be allowed in product liability in an action in negligence, warranty and also strict liability. However, the propriety of allowing such damages in the course of these theories, especially in action based in strict liability, has been questioned.[162] The leading case approving punitive damages in strict tort liability is Toole v. Richardson-Merrill, Inc.[163]

Commentators in the field of aviation have made several arguments against allowing punitive damage against aircraft manufacturers and the other segments of aviation industry.[164]

It is argued that this industry is closely regulated by governmental authorities and are thus already exposed to civil administrative penalties as well as criminal penalties.[165] On the other hand, it is further argued that an air crash disaster involving products liability litigation exposes manufacturers to repeated punitive damage awards because of the presence of multiple victims in a single occurrance. While no legitimate purpose is served by repeatedly penalizing alleged wrongdoer for a single act, there is no judicial standards to control it and no justification for the public subsidizing multiple windfalls, it is argued.[166]

Against these arguments plaintiff's bar claims that punitive damages are appropriate. Allowing these damages leads eventually to promoting public policies of consumer protection and also to preventing gross malpractice by aircraft manufacturers.[167] Lee S. Kreindler, one of the prominent authorities on aviation litigation in the United States concludes the following:

> I believe that the right to recover punitive damages is a valuable tool in the hands of responsible plaintiff's lawyers. This right provides for society somethings that our enforcement agencies, our justice department and police, cannot possibly provide. Punitive damages provide a protection to the community that the FAA cannot possibly provide.[168]

Punitive damages have been awarded against aircraft manufacturers in few aviation products liability cases.[169] However, the question as to whether punitive damages should be allowed in wrongful death actions is not clear. This issue was raised in the important case in re Paris Air Crash

of March 3, 1974.[170] Many of the individual suits which were consolidated by the Judicial Panel on Multidistrict Litigation, included claims for punitive damages. Punitive damage claims were based on allegations of intentional, fraudulent or malicious conduct in the design, production and certification of the plane. The District Court denied these claims. This denial was appealed to the U.S. Court of Appeals (Ninth Circuit) which ruled on this question on July 2, 1980.[171] The Court of Appeals said that denial of punitive damages awards under California law in wrongful death actions, does not violate the equal protection clauses of the U.S. Constitution or the California Constitution. It is important to notice, however, in this decision the Court did not say that punitive damages are not allowed. The Court merely concluded that denial of punitive damage awards does not violate the equal protection clauses of the U.S. Constitution or California Constitution.

F. Conclusion

Unlike negligence in which the emphasis in a products liability action is placed on the manufacturer's conduct in performing his duty of care, strict liability focuses on the product itself and its performance. When a product fails to perform in the expected nature and manner for which it is used or made strict liability follows whether the manufacturer is negligent or not. Thus, in a strict liability action it is the "product's liability" rather than the "manufacturer's liability" which is the touchstone of the law.

The strict liability doctrine is centered around the concept of the "defectiveness" of the product involved. A product may be defective in its design, manufacture or by means of inadequate warning or instruction. The state of defectiveness may be determined by different criteria. Among these are; the consumer's or the user's expectations, the product's fitting to normal and ordinary use and its equivalency to similar average products.

In order for a strict liability claim to succeed, a plaintiff must establish that the product is defective and unreasonably dangerous, the product reached the user without substantial change and the approximate causal relationship. Some courts in the United States have shown willingness to liberalize these elements in expanding the scope and the application of this doctrine. This liberal trend is led by the courts of the State of California.

FOOTNOTES
(Chapter Five)

[1]Greenman v. Yuba Power Products, Inc., 59 Cal. 2d 57, 377 P 2d 897, 27 Cal. Rptr. 697 (1962).

[2]Ibid., at 900, 27 Cal. Rptr. at 700.

[3]Escola v. Coca Cola Bottling Co., 24 Cal. 2d 453, 150 P 2d 436 (1944).

[4]Ibid., at 440.

[5]States which have adopted Sec. 402A are: Alabama, Arizona, Colorado, Connecticut, Florida, Hawaii, Idaho, Iowa, Kansas, Kentucky, Maryland, Missouri, Mississippi, Montana, New Mexico, North Dakota, Okalhoma, Pennsylvania, Rhode Island, Texas, Vermont, Washington, and Wisconsin. (For the list of cases in which each state adopted this doctrine see: Insurance Counsel Journa Jan. 1980 at 57).

[6]States which adopted a rule of strict liability for defective products which is equivalent to Sec. 402A: Alaska, California, Delaware, District of Columbia, Illinois, Louisiana, Michigan, Minnesota, Nebraska, Nevada, New Jersey, New York, Ohio, and Tenneseee. (For the list of cases in which each state adopted this doctrine see: Insurance Counsel Journa Jan. 1980 at 57).

[7]See 72 Corpus Juris Secundum - Products Liability Sec. 7 at 10-11 (1975).

[8]See 63 Am Jur 2d - Product Liability at 126-127 (1972).

[9]The Restatement (Second) of Torts Sec. 402A (1965).

[10]See Supra, note 5 and 6.

[11]The Restatement (Second) of Torts Sec. 402A (1965).

[12]See W. Prosser, Law of Torts 4th Ed. (1971) at 671-672.

[13]See 63 Am Jur 2d - Product Liability at 135-136 (1972).

[14]See generally Traynor, The Ways and Meanings of Defective Products and Strict Liability.(1965) 32 Tenn. L.

Rev. 363, see also Wade, On the Nature of Strict Tort Liability for Products. 44 Miss. L. J. 825; see also 72 Corpus Juris Secundum - Product Liability at 19-21 (1975).

[15]See W. Kimble & R. O. Lesher, Products Liability (1979) at 70-72.

[16]Ibid., at 72-74.

[17]Ibid., at 74.

[18]See generally Traynor, Supra, note 14; see also Kimble & Lesher, Supra, note 15, at 70-74.

[19]See Kimble & Lesher, Supra, note 15 at 75-76.

[20]Ibid.

[21]See for example: Klein v. Continental Emsco Co., 310 Supp. 413, 445 2d.629; Price v. Buckingham Mfg. Co., 266 A.2d 140, 110 N.J. Super, 462; Eshbach v. W. T. Grant's & Co., 481 F.2d.940; Ford Motor Co. v. Mathews, 291 So.2d 169.

[22]Seely v. White Motor Co., 403 P.2d 145, 45 Cal. Rptr. 17. (Cited in Corpus. Juris, Supra, note 14 at 19).

[23]Daleiden v. Carborundum Co., 438 F.2d 1017. (Cited in Corpus Juris, Supra, note 14 at 19).

[24]Texas Western Financial Corp. v. Ideal Builders Hardware Co., 481 S.W.2d 919. (Cited in Corpus Juris, Supra, note 14 at 19).

[25]Cravens, Dargan & Co. v. Pacific Indem. Co., Inc., 105 Cal. Rptr. 607, 29 C.A.3d 594 (Cited in Corpus Juris, Supra, note 14 at 19).

[26]Restatement (Second) of Torts Sec. 402A (1965).

[27]Cronin v. J.B.E. Olson Corporation, 8 Cal.3d 121, 501 P.2d 1163, 104 Cal. Rptr. 433 (1972).

[28]Barker v. Lull Engineering Company, Inc., 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978).

[29]Ibid.

[30]72 Corpus Juris Secundum - Product Liability at 20-21 (1975).

[31]See for example: Nicklaus v. Hughes Tool Co., 417 F.2d 983; Heckel v. American Coupling Corp., 384 Mich. 19, 179 N.W.2d 381, Rourke v. Garza, 530 S.W.2d 794; General Motors v. Brady, 477 S.W.2d 385.

[32]See Prosser, Supra, note 12, at 674.

[33]For a detailed discussion of this question see Kimble & Lesher, Supra, note 15, at 90-94.

[34]The Restatement (Second) of Torts Sec. 402A (1965).

[35]Ibid.

[36]See Kimble & Lesher, Supra, note 15 at 91.

[37]See for example O. S. Stapley Co. v. Miller, 103 Ariz. 5561, 447 P.2d 248.

[38]Kimble & Lesher, Supra, note 15 at 92.

[39]See for example: Hunt v. Firestone Tire and Rubber Co., 488 P.2d 1018; Seely v. White Motor Co., 63 Cal. 2d 9, 45 Cal. Rptr. 17, 403 P.2d 145.

[40]Kimble & Lesher, Supra, note 15 at 274.

[41]Ibid.

[42]See Annot., Liability of Manufacturer, Seller or Distributor of Motor Vehicle for Defect Which Merely Enhances Injury From Accident Otherwised Cased. 42 A.L.R. 3rd (1972) 560.

[43]See Am Jur 2d - Product Liability (1972) at 131-132. See also 2 Frumer & Friedman, Products Liability Sec. 16A at 3-320, see also Phillips, The Standard for Determining Defectiveness in Products Liability (1977) A6 U. Cin. L. Rev. 100 Wade, On the Nature of Strict Tort Liability for Products. 44 Miss. L. J. 825; see also V. S. Walkowiak, Product Liability Litigation and the Concept of Defective Goods: "Reasonableness" Revisited (1979) 44 J. Air L. 705.

[44]See Halford, The Limits of Strict Liability for Product Design and Manufacture (1973) 52 Tex. L. Rev. 81, 82, see also Keeton, Manufacturer's Liability: The Meaning of "Defect" in the Manufacture and Design of Products (1969) 20 Syracuse L. Rev. 559, 562.

[45]Volkswagen of America, Inc. v. Young, 272 Md. 201, 321 A 2d 737 (1974). See generally Phillips, The Standard for Determining Defectiveness in Products Liability (1977) 46 U. Cin. L. Rev. 100, 103-105.

[46]Ibid.

[47]Ibid., see also references cited in Supra, note 44.

[48]457 F. Supp. 364 (1978).

[49]Ibid.

[50]Ibid., at 367.

[51]377 P.2d 897, 59 Cal. 2d 57 (1962).

[52]Ibid.

[53]J. Phillips, A Synopsis of the Developing Law of Products Liability (1979) 28 Drake L. Rev. 3 & 345.

[54]Ibid.

[55]Ibid., some commentators divide design defects into two categories: The inadvertant design error and the conscious design choice. See V. S. Walkowiak, Product Liability Litigation and the Concept of Defective Goods: "Reasonableness" Revisited (1979) 44 J. of Air L. and Comm. 705 at 719-21.

[56]D. W. Noel & J. J. Phillips, Products Liability In Nutshell, (1974) at 141.

[57]Ibid., at 141-142.

[58]See Henderson, Judicial Review of Manufacturer's Conscious Design Choices: The Limits of Adjudication (1973) 73 Colum. L. Rev. 1531, also Epsteian, Products Liability: The Search for the Middle Ground (1978), 56 N.C.L. Rev. 643.

[59]For an overview of each of these areas see Noel & Phillips, Supra, note 56 at 141-157.

[60]Wade, On the Nature of Strict Liability for Products, 44 Miss. L. J. 825, 837-38. For application of these standards see Cepeda v. Cumberland Engineering Co., 76 N.J. 152, 386 A.2d 816 (1978).

[61]8 Cal. 3d 121, 501 P.2d 1153, 104 Cal. Rptr. 433 1972.

[62]20 Cal. 3d 413, 143 Cal. Rptr. 225, 573 P.2d 443 (1978).

[63]59 Cal. 2d 57, 377 P.2d 897 (1962).

[64]See generally A. R. Abramson, Defining the Design Defect in Aircraft Products Liability Cases (1979) 45 J. Air L. 167.

[65]576 P.2d 426.

[66]2 Prod. Liability Report (CCH), 8, 231 (1978).

[67]479 F.2d 1089 (5th Cir. Tex. 1973).

[68]281 A.2d 707 (Pa. Sup. 1971).

[69]See R. Schaden, Aircraft Crashworthiness, (1978), 14 Trial L. 40, 41.

[70]See for example M. J. Foley, & R. E. Hunting, Recent Development in Aviation Law (1979) 45 J. Air L. 319, see also S. J. Levy, The Rights of Passengers in Bockstiegel, Product Liability in Air and Space Transportation (1977) 77, 85.

[71]Schaden, Supra, note 69 at 41.

[72]See Annot., Liability of Manufacturer, Seller or Distributor of Motor Vehicle for Defect which merely Enhances Injury from Accident otherwise Caused. 42 A.L.A. 3rd (1972) 560.

[73]See generally Turner v. General Motors Corp., 514 S.W.2d 497, Pike v. Frank G. Hough Co. 2 Cal. 3d 465, Thomas v. General Motors, 13 Cal. Appeal 3d 81, Self v. General Motors Corp., 42 Cal. App. 3d 1, Buccery v. General Motors Corp., 60 Cal. App. 3d 533.

[74]359 F.2d 822, 385 U.S. 836 (1966).

[75]391 F.2d 495 (1968).

[76]This case was brought under the theory of negligence rather than strict liability.

[77]Supra, note 74 at 825.

[78]Ibid.

[79]Supra, note 75 at 502.

[80]Ibid.

[81]Ibid., at 502-03.

[82]See D. E. Marcy, The Crashworthiness Doctrine and the Allocation of Risks In Commercial Aviation (1979) 52 South Cal. L. Rev. 1581, 1586; see also NOTE: Uncrashworthy Aircraft and the Manufacturer's Liability (1980) 13 Akron L. Rev. 553.

[83]See M. J. Foley & R. E. Hulting, Recent Development in Aviation Law (1979) 45 J. Air L. 319, 320. On the subject of aviation crashworthiness see: F. A. Demanes, Aircraft Manufacturer's Liability for Aggravated Injury, (1977) 1 J. of Products Liability 27, Donnelly, Aircraft Crashworthiness -

Plaintiff's Viewpoint (1976) 42 J. Air L. and Comm. 57, Harrison, Aviation "Crashworthiness": An Extrapolation in Warranty, Strict Liability and Negligence (1973) 39 J. Air L. 415; Galerstein, A Review of Crashworthiness (1979) 45 J. Air L. 187.

[84]Marcy, Supra, note 82 at 1581.

[85]544 F.2d 442 (10th Cir. 1976).

[86]376 F. Supp. 603 (N.D. Miss. 1974).

[87]No. 282 029 (Dist. Ct., Washoe County, Nev. Aug. 29, 1977) abstracted in 21 A. Trial L. Am. Newsletter 62 (1978) (cited by March, Supra, note 82 at 1590). The case is also discussed in Aviation Consumer, March 15, 1978 at 4.

[88]82 Cal. App. 3d 1005, 147 Cal. Rptr. 694 1978.

[89]Supra, note 87.

[90]Supra, note 88 at 1010.

[91]Ibid., at 1005.

[92]The court in the McGee case held: California Law does not require proof of defect be "unreasonably dangerous", Supra, note 88 at 1017.

[93]See generally 72 Corpus Juris Secundum (1975) - Products Liability at 37-39.

[94]Boyl v. Cal. Chem. Co., 221 F. Supp. 669, 674-675 (1963).

[95]See Supra, note 93.

[96]Williams v. Brown Mfg. Co., 93 Ill App. 2d 334, 360, 236 NE 2d 125 1968.

[97]Martinez v. Dixie Carriers, Inc. 529 F. 2d 457.

[98]Ibid.

[99]Restatement (Second) of Torts, Explanatory Notes Sec. 402A. Comment h and J (1965).

[100]See for example: Posey v. Clark Equipment Co., 409 F.2d 560 (1969), Downey v. Moor's Time-Saving Equipment Inc., 432 F.2d 1088 (1970).

[101]See for example Jackson v. Coast Paint & Lacquer Co., 449 F.2d 809, 812.

[102]See generally Speiser & Krause, Aviation Tort Law (1979) Vol. II at 528.

[103]Ibid.

[104]462 Pa. 83, 337 A.2d 893 (1974).

[105]463 Pa. 83, 337 A 2d 893, 902.

[106]See for example Greenman v. Yuba Power Products Inc. 59 Cal. 2d 57, 377 P. 2d 897 (1963), Markle v. Mulkholands, Inc., 265 Or. 259, 509 P.2d 529 (1972), Velez v. Crane and Clark Lumber Corp., 33 N.Y. 2d 117, 350 N.Y. S.2d 617, 305 N.E. 2d 750 (1973).

[107]The Restatement (Second) of Torts, Comment "m" to Sec. (402A) (1965).

[108]See for example the case: Idaho Power Co. v. Westinghouse Electric Co., 596 F. 2d 924 (1979).

[109]Delta Airlines, Inc. v. McDonnell Douglas Corp., 503 F.2d 239 (1974), Keystone Aeronautics Corp. v. R. J. Eastrom Corp., 364 F. Supp. 1063 1973.

[110]Ruling in cases cited in note 109 Ibid., upheld aircraft manufacturer's disclaimers contained in aircraft purchase agreement.

[111]503 F. 2d 239 (1974).

[112]See cases discussed in the chapter dealing with the Contractual Liability of Aircraft Manufacturers. See also cases cited in, Supra, note 109.

[113]601 F. 2d 425 (9th Cir. 1979).

[114]Ibid.

[115]Supra, note 111.

[116]Supra, note 113 at 428.

[117]See generally: Noel, Defective Products: Abnormal Use, Contributory Negligence and Assumption of Risks (1972). 25 Vand. L. Rev. 93; Schwarts, Strict Liability and Comparative Negligence (1974) 42 Tenn. L. Rev. 171; Twerski, Old Wine in a New Flask - Restructuring Assumption of Risk in Products Liability Era (1974) 60 Iowa L. Rev. 1; Grennhill, Assumption of Risk, 16 Baylor L. Rev. 111; Comment: Misuse as a Bar to Bystander Recovery Under Strict Liability (1973) 10 Hous. L. Rev. 1106; Comment: Products Liability: Strict Liability and the Defenses (1968) 18 DePaul L. Rev. 223 (1968).

[118]For a review of the most recent cases relating to defenses in strict liability claims in the field of products liability see R. Phelan, Products Liability Update 1980 (1980) at 47-57.

[119]See for example Greeno v. Clark Equip. Co., 237 F. Supp. 427.

[120]See, Comment: Comparative Negligence and Strict Products Liability (1977) 38 Ohio State L. J. 883 see also Fischer, Product Liability - Applicability of Comparative Negligence to Misuse and Assumption of Risk (1978) 43 Mo. L. Rev. 643 (1978).

[121]Ibid.

[122]See for example Cousins v. Instrument Flyers, Inc., 396 N.Y. S. 2d 655 (1977); Kay v. Cessna Aircraft Co., 548 F.2d 1370 (1977).

[123]See Stuckey v. Young Exploration Company, 586 P.2d 762 (1978).

[124]See for example Ariz. Rev. Stat. 12-683 (2)(a); N.H. Rev. Stat. Ann. 507-D:3.

[125]Black's Law Dictionary (4th Rev. 1968) 466.

[126]See generally: Note, Manufacturer's Strict Tort Liability to Consumer for Economic Loss (1976) 41 St. John's L. Rev. 401, Comment, Strict Liability Recovery of "Economic" Loss, (1976) 13 Idaho L. Rev. 29, F. C. Sabatino, Economic Losses and Strict Products Liability: A Record of Judicial Confusion Between Contract and Tort (1978) 54 Notre Dame L. 118, NOTE: The Vexing Problem of the Purely Economic Loss in Products Liability: An Injury in Search of A Remedy (1973) 4 Seton Hall L. Rev. 145.

[127]Greenman v. Yuba Power Products, Inc., 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1962).

[128]Hawkins Constr. Co. v. Mathew Co., Inc., 190 Neb. 546, 209 N.W. 2d 643 (1973).

[129]See generally note cited in Supra, note 126.

[130]The Restatement (Second) of Torts Sec. 402A (1965).

[131]Comment, Strict Liability Recovery of "Economic" Loss, (1976) 13 Idaho L. Rev. 29, at 39-40.

[132]See for example: Greenman v. Yuba Power Products, Inc. 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1962).

[133]See for example: Korger Co. v. Beck, 375 N.E. 2d 640 (Ind. Ct. App. 1978) also see: DeSantis v. Parker Feeders, Inc. 547 F.2d 357 (7th Cir. 1976).

[134]See Huddell v. Levin, 537 F.2d 726 (3rd Cir. 1976).

[135]General Motors Corp. v. Hubert, 501 S.W. 2d 950 (Tex- Civ. App. 1973).

[136]59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1962).

[137]Supra, note 134.

[138]Supra, note 135.

[139]See Cooley v. Salopian Industries Ltd. 383 F. Supp. 1114 (D.S.C. 1974) and also Gherna v. Ford Motor Co., 246 Cal. App. 2d 639, 55 Cal. Rptr. 94 (1966).

[140]See generally S. Harr, Strict Products Liability - Loss to Other Property or Personal Injury is Necessary for Strict Liability Recovery for the Product Itself, (1978) 10 Tex. Tech. L. Rev. 322.

[141]H. M. Warren, Products Liability - Damage to the Product Itself (1978) 44 J. Air L. 207, 210-11.

[142]572 S.W. 2d 308 (Tex. 1978).

[143]Ibid., at 313.

[144]See for example O.M. Franklin Serum Co. v. C. A. Hoover & Son, 418 S.W. 2d 482 (Tex. 1967).

[145]The Restatement (Second) of Torts Sec. 402A (1965).

[146]See for example Tide Product Inc. v. Browning, 493 S.W. 2d 654.

[147]63 Cal. 2d 9, 403 P.2d 145, 45 Cal. Rptr. 17 (1965).

[148]See generally K. Ross & M. Foley, Product Liability of Manufacturers Prevention and Defense (1979).

[149]Supra, note 147.

[150]44 N.J. 52, 207 A.2d 305 (1965).

[151]Ibid.

[152]See for example: Cova v. Harley Davidson Motor Co., 26 Mich. App. 602, 182 N.W. 2d 800 (1970).

[153]L. S. Kreindler, Punitive Damages in Aviation Litigation - An Essay (1978) 8 Cumberland L. Rev. 607.

[154]See generally Abramson, Punitive Damages in Aircraft Accident Cases: A Debate (1975) 11 The Forum 50, Haskell, The Aircraft Manufacturer's Liability for Design and Punitive Damages - the Insurance Policy and the Public Policy (1975) 40 J. Air L. 595, Tozer, Punitive Damages and Products Liability (1972) 39 Ins. Counsel J. 300, Igoe, Punitive Damages: An Analytical Perspective (1978) 14 Trial 48; Robinson and Kane, Punitive Damages in the Products Case (1979) 15 Trial.

[155]Haskell, The Aircraft Manufacturer's Liability for Design and Punitive Damages - The Insurance Policy and the Public Policy, (1974) 40 J. Air L. 595, 610.

[156]See Campbell Estates, Inc. v. Bates, 21 Ariz. App. 162, 517 P.2d 515 (1973).

[157]Reynolds v. Pegler, 123 F. Supp. 36, 38 (S.D. N.Y. 1954) (This case is cited by Kreindler, Aviation Accident Law in Sec. 15.0 (1978).

[158]See Robinson and Kane, Punitive Damages in the Products Case, (1979) 15 Trial 34, 36.

[159]For an excellent analysis of the subject of punitive damages and its application in the products liability cases in the United States see: D. G. Owen, Punitive Damages in Products Liability Litigation (1976) 14 Mich. L. Rev. 1257 (1976).

[160]The Restatement (Second) of Torts (1965) Sec. 908.

[161]See J. Hagner, Punitive Damages - Insurance and Reinsurance (1980) Insurance Counsel J. 72.

[162]Owen, Supra, note 159 at 1268-1271.

[163]251 Cal. App. 2d 689, 60 Cal. Rptr. 398 (1967).

[164]See I. S. Carsey, The Case Against Punitive Damages: An Annotated Argumentative Outline (1976) 11 Forum 57.

[165]Ibid., at 60.

[166]Ibid., at 60-61.

[167]A. R. Abramson, Punitive Damages in Aircraft Accident Cases - A Debate (1976) 11 Forum 50.

[168]Kreindler, Supra, note 153 at 617.

[169]See for example Pease v. Beech Aircraft Corp., 38 Cal. App. 3rd 450, 113 Cal. Rptr. 416 (1974).

[170]427 F. Supp. 701 (C.D. Cal. 1977).

[171]In Re Paris Aircrash of March 3, 1974 - McDonnell Douglas Corporation and General Dynamics Corporation v. Plaintiffs in MDL 172. Ruling in this case is reported in 15 Avi. 18, 166.

CHAPTER SIX

CONFLICT OF LAWS

A. General Remarks

In the light of its present tremendous flight capability, the airplane can have contacts with many jurisdictions in a rather short time. Some airplanes fly daily over territories located in several continents.

A commercial air carrier crash during an international flight may, therefore, cause complex conflict of law problems. A typical wide-body airplane carries several hundred passengers. An airplane engaging in an international flight may have contacts with several countries and may carry passengers of different nationalities on a single trip. With every passenger a potential plaintiff, hundreds of claims may be filed in different countries.[1]

On March 3, 1974, a Turkish Airlines DC-10 airliner with 346 persons aboard crashed minutes after take-off from Orly Airport near Paris, France. The Turkish airliner carried passengers from 24 countries and resulted in over two hundred claim cases.[2] The Tenerife disaster, March 27, 1977, in which two Boeing 747's collided, claimed over 500 lives.[3] Another example is the DC-10 disaster at Chicago's O'Hare International Airport in which more than 270 lives were lost. This crash, which occurred on May 25, 1979,

claimed the lives of passengers from 15 states and five foreign countries.[4] Wide-bodied commercial airliners with capacities exceeding 300 passengers such as Boeing 747's, the Douglas McDonnell DC-10s and the Lockheed L-1011s are owned by many airlines and are operated worldwide. Although air travel has in the recent years reached high standards of safety the world every now and then is shaken by the occurance of a mass air travel disaster.[5]

There are many factors which may contribute to the complexity of the conflict of laws questions in the litigation that may follow an airplane crash. Besides the potential number of nationalities and domiciles of plaintiff passengers an airplane crash usually involves many defendants such as governments authorities which certified the aircraft, air traffic control, airline and the manufacturer of the aircraft. These defendants may have their head offices in different countries and also carry on business in other foreign countries. Long arm jurisdiction statutes such as those available in most states of the United States, and the broad rules and bases of jurisdiction existing in most countries of Europe, may be invoked by different jurisdictions thus leading to duplication of litigation or to inequitable judgments.[6] Added to all of these jurisdictional problems the conflicting rules of choice of applicable law and the different approaches in the characterization of relevant substantive and procedural questions in the jurisdictions involved in that litigation.[7]

Problems of conflict of laws is further complicated

when an aircraft crash involves a defect in the aircraft or one of its component parts. Products liability claims are a prolific source of conflict of laws.[8] Since a product liability claim against an aircraft manufacturer may be brought in contract or in tort under the theory of negligence or strict liability, the conflict of laws rules both procedural and substantive, relating to each one of these bases may add new dimensions to the complexity of the problem.[9]

The mentioned interrelated conflict of laws elements which may be associated with a single accident during an international flight may potentially create a nightmare of interstate or international litigation.[10] Such litigation may witness great deal of "forum shopping" and "defendant shopping" due to availability of different jurisdictional and choice of law alternatives.[11] In the area of aviation products liability litigation the "shopping" may be further increased due to the existence of more developed and favorable conditions in the law of certain countries.[12]

B. Jurisdiction in International Aviation Product Liability Cases

1. In the United States

(a) Extending Jurisdiction to Out of State and Foreign Defendant Manufacturers

Traditionally, the jurisdiction of a court to enter a judgment in personam against a defendant depended upon the presence of that defendant in the state or his submission to its jurisdiction.[13] This rule, however, has been substantially expanded to meet the modern conditions of commerce, production

and distribution, as well as transportation and communication. Accordingly, jurisdictional bases were expanded to reach, under prescribed conditions, non-resident and foreign defendants.[14] This process was achieved by a series of landmark United States Supreme Court decisions and also by the enactment of specific statutes which confer upon the state a long arm jurisdiction.[15]

In 1945, the United States Supreme Court rendered the well known decision in International Shoe Co. v. Washington[16] in which it initiated the trend of expanding the permissible scope of state jurisdiction over foreign and non-resident corporations. The Court said "minimum contacts" are enough for the assertion of jurisdiction over a non-resident defendant. The Court said:

> The strictness of that rule has given way somewhat to the present view that due process requires only that in order to subject a defendant to a judgment in personam, if he be not present within the territorial forum, he have certain minimum contacts with it such that the maintenance of the suit does not offend traditional notions of fair play and substantial justice.[17]

This decision was followed by two other decisions rendered by the same court in 1957 and in 1958 in McGee v. International Ins. Co.,[18] and in Hanson v. Denckla.[19] In the first case, the Supreme Court upheld the state's assertion of jurisdiction over a foreign corporation on the basis of a single act or transaction. This position was reaffirmed by the court in the second case.

Apart from this development reached by the common law almost every state in the United States has enacted a so-called

"long arm" statute. These statutes have the effect of conferring upon local courts jurisdiction over out-of-state defendants in actions brought by local residents which arise from acts carried on within the state or which result in injury to local residents within the territorial limits of that state.[20] The following is a pertinent section of the Uniform Interstate and International Procedure Act which has been adopted by a considerable number of states.

> (a) A court may exercise personal jurisdiction over a person, who acts directly or by an agent, as to a (cause of action) (claim for relief) arising from the person's
>
> (1) transacting any business in this state;
> (2) contracting to supply services or things in this state;
> (3) causing tortious injury by an act or omission in this state;
> (4) causing tortious injury in this state by an act or omission outside this state if he regularly does or solicits business, or engages in any other persistent course of conduct, or derives substantial revenue from goods used or consumed or services rendered, in this state; (or)
> (5) having an interest in, using, or possessing real property in this state (or)
> (6) contracting to insure any person, property, or risk located within this state at the time of contracting.[21]

Other states have enacted more liberal rules which have considerably expanded jurisdiction over non-resident and foreign defendants on basis ranging from an isolated act done or engaged in by a non-resident within the state, such as the transaction of "any" business, to the commission of a tort in "whole or in part" within the territory of that state.[22]

Under some circumstances a non-resident or a foreign manufacturer or seller of defective product may be subject to

jurisdiction of a local court pursuant to provisions of these statutes. Indeed some states have enacted long arm statutes specifically aimed at expanding jurisdiction to facilitate suits against out-of-states and foreign manufacturers. The states of Nevada and North Carolina, for example, have long arm statutes especially enacted to cover products liability cases by providing jurisdiction over manufacturers whose products cause injury in the state regardless of any considerations of how the products got to those states.[23]

What type of activity or contact can potentially bring a non-resident or foreign manufacturer within the judicial jurisdiction of a state under the long arm jurisdiction statutes? Basically two principal contacts may lead to the assertion of such jurisdiction: the "commission of a tort" and "doing business" within the territory of that state.[24] While there seems to be no authoratative definition for these two concepts the American courts seem to have broadly and liberally interpreted these bases to confer jurisdiction over foreign and non-resident manufacturers.[25] In so doing, the courts did not make any conceivable distinction between international cases and those interstate cases or between non-resident American manufacturers or foreign non-American manufacturers.[26]

There are many interstate and international product liability cases in which local jurisdiction has been asserted over non-resident or foreign manufacturers on the basis of either engaging or carrying on business or committing a

tortious act in a state.[27] The list of these cases includes many aviation product liability cases both interstate and international. The following two cases of aviation product liability, one is an interstate case and the other is international may illustrate the growing trends of the American Courts to expand jurisdiction over non-resident or foreign manufacturers.

In Peeler v. South Carolina Helicopters, Inc.,[28] the Supreme Court of South Carolina held that a foreign corporate manufacturer of helicopter, although had no offices, bank account or employees in South Carolina, had sufficient contacts with the state to make it amenable to process in that state without a violation of due process. The Court took the jurisdiction over that corporate manufacturer on the basis that the manufacturer conducted five or six promotional visits in South Carolina prior to the crash of its helicopter. These activities were considered by the courts as sufficient contact to assume jurisdiction. The second case is Bach v. McDonnell Douglas, Inc.[29] which was decided by a United States District Court in Arizona in 1979. In this case the Court assumed jurisdiction over a foreign manufacturer, a British company (Baker Co., Ltd. of England). One of the bases used by the court to justify assertion of jurisdiction upon the British manufacturer is the following. Where the injury-causing product was sold with knowledge that the product will, at least, partially be used in the sky over Arizona, such sale was purposeful activity for purposes of asserting personal jurisdiction over designer and

manufacturer. The British manufacturer designed and sold military aircraft ejection seats in England. One of its products which was sold to McDonnell Douglas in England was involved in a fatal accident which occurred while a United States military aircraft happened to be flying over Arizona. There are other older cases in which American courts asserted jurisdiction upon foreign aircraft manufacturers of component parts.[30]

(b) Denial of Jurisdiction over Resident Defendant Manufacturer for Reasons of Forum Non-Conveniens

Under the doctrine of forum non-conveniens a court may decline to exercise jurisdiction which it concededly possesses. Refusing to assert jurisdiction on the basis of this doctrine is made when a court finds that the interests of the parties and of the public is better served by remitting the plaintiff to another more convenient forum that is available to him.[31] Application of the forum non-conveniens doctrine is thus conditional upon the existence of an alternative convenient forum where the plaintiff can receive an adequate and substantial remedy. The nature of such an adequate and substantial remedy should be equitable to that which the plaintiff sought in the first forum. In deciding whether to exercise its discretion and thus deny jurisdiction pursuant to the doctrine of forum non-conveniens, the courts usually consider such factors as the convenience of the parties and the witnesses, the evidence relating to the subject matter and also the public interest.[32]

Before the promulgation of Section 1404 of the Judiciary Act of 1948 the courts in the United States applied this doctrine in accordance with the principles of the common law.[33] Under Section 1404(a) the Federal Courts need no longer dismiss a case under the common law doctrine of forum non-conveniens but instead these courts received authority to transfer that case to another Federal district court if such a transfer is warranted.[34] Section 1404(a) provides that in the interest of justice and convenience of parties a district court may transfer any civil action to any other district or division where it might have been brought.[35]

It is important to mention here, however, that this law operates only among Federal courts and therefore no legal framework as such exists to state courts. A state court which decides to invoke the forum non-conveniens cannot order a case transferred to a more convenient court rather it may only dismiss it.[36] Dismissal for forum non-conveniens is also still appropriate in the Federal courts when the alternative forum is a foreign jurisdiction to which Section 1404(a) transfer is not available.[37]

The doctrine of forum non-conveniens may have frequent applications in litigation involving international products liability.[38] At present products are moved and transferred to markets in distant parts of the world away from the place where they were manufactured. In view of those situations the doctrine of forum non-conveniens with its flexible terms seems to be a very valuable instrument in the hand of the courts to fashion wise decisions in questions relating to the

exercise of jurisdictional power. Its application in international products liability is emphasized by Kimble and Lesher:

> Since a product liability case may involve many and expensive discovery proceedings conducted at great expense to a remote defendant, and require the presentation of witnesses and exhibits from long distances from the forum, a defendant may move the court to decline jurisdiction as unfairly inconvenient and expensive.[39]

The doctrine of forum non-conveniens has been invoked by American courts in many products liability cases.[40] Among these there have been several aviation products liability cases. Perhaps the most recent two aviation product liability cases in which an American court has declined jurisdiction against a defendant American manufacturer for reasons of forum non-conveniens are Dahl et al v. United Technologies Corp.,[41] (U.S. District Court, Delaware, June 8, 1979) and Orion Insurance Co. v. United Technologies[42] Corporation, Et Al (U.S. District Court, Southern District, New York, March 26, 1980). In the first case a U.S. manufactured helicoptor crashed in the territorial waters of Norway. The aircraft was owned and operated by a Norwegian company. Following the crash family representatives of four Norwegians who died in that crash filed a product liability claim in the U.S. District Court in Delaware. The complaint argued that the helicopter was defective and charged the aircraft manufacturer on theories of negligence, strict liability and breach of warranty. The defendant, a U.S. manufacturer claimed that Norway was a much more convenient forum to pursue that claim and offered to provide the court in Norway

with all documents needed. The Court decided that Norway is a suitable and convenient forum, to look into the complaint and accordingly dismissed the case. The court reasoned that much of the evidence pertaining to the case particularly with regard to potential witnesses to the crash or to the aircraft maintenance and operation are in Norway. On the other hand the court observed that the U.S. manufacturing corporation could not compel the attendance of Norwegian witnesses in the Delaware litigation and could not subpoena documents in the possession of that country's aviation authority. Contrary to the plaintiff's assertion regarding the state of product liability law in Norway the court noted that Norway is in the process of developing case law built up around product liability cases and the pretrial procedures available in Norway are as conducive to the fair administration of justice as those available under United States law. Even if the Delaware court proceeds to look into the case, the Court concluded that:

> It would under the state's conflict of law rules have to apply the law of jurisdiction 'where the tort arose,' and that jurisdiction is Norway. Even though it would have to apply Connecticut law to the breach of warranties claim because the helicopter was sold there, the court said that the warranty count 'is probably barred' by the applicable statute of limitations anyway.[43]

In the second case Orion Insurance Co. v. United Technologies Corporation, Et Al.[44] the U.S. District Court (S.D. N.Y.) weighed both public and private interest and concluded that the availability of strict liability claim in New York but not in the forum in which the crash occurred was

insufficient to outweigh the demonstrated and substantial inconvenience to the New York forum. This case involved a similar situation to the Dahl case brought by a British insurance company against an aircraft manufacturer to recover for damages paid on behalf of its insured as a result of the accident. The accident has involved a crash of a helicopter which was manufactured in Connecticut. The crash, however, occurred off the coast of Great Britain. The court dismissed the case for reasons of forum non-conveniens.

The ruling in the above two mentioned cases to invoke the doctrine of forum non-conveniens against the Norwegian and the British plaintiffs should not, however, be read to reflect a general attitude in the American jurisprudence. Just a few months before the Dahl case was dismissed for reasons of forum non-conveniens by a U.S. District Court in the State of California denied a forum non-conveniens dismissal motion by a defendant American aircraft manufacturer in a case involving a crash in a foreign country. In re Air India Crash[45] a U.S. made airplane operated and owned by Air India crashed in January 1, 1978 in India. A suit was brought in the U.S. District Court for the Central District of California against the aircraft manufacturers, the Boeing Company and Lear Siegler, Inc. The defendant aircraft manufacturers filed a motion for dismissing the case on the ground that the convenience of the parties demands that the case be dismissed or transferred because the witnesses and evidence are available in India. The court,

however, in denying the motion for dismissal said that the defendants seem to overlook that this is a product liability case. The focus of the discovery is against the defendants, the Boeing Company and Lear Siegler, Inc., whose principal places of business are in the states of Washington and California. The court further asserted that none of the evidence concerning any fault in manufacturing or assemblying or putting a defective product in the market in California or Washington or elsewhere in the U.S.A. is to be found in India.[46] This same result was also reached recently by the U.S. District Court for the District of Columbia on April 17, 1980 in the case of Petroleum Helicopters De Columbia, S.A. v. Textron, Inc.,[47] which involved a helicopter crash in Columbia, South America.

(c) Consolidation of Multidistrict Litigation

In 1968 the Congress of the United States enacted a piece of legislation which left considerable impact on subsequent aviation litigation in the United States. This piece of legislation (28 U.S.C. Section 1407) created the Judicial Panel on Multidistrict Litigation.[48] This Judicial Panel consists of seven circuit or district judges designated from time to time by the Chief Justice of the United States. When multiple civil actions involving one or more common questions of fact pending in different districts, such actions may be transferred to any district court for coordinated or consolidated pretrial precedings. This transfer is determined by the above mentioned Judicial Panel upon

considerations of convenience to the parties and the witnesses and also efficiency and justice in handling these claims.[49] It is important to note, however, that this mechanism of transferring and consolidating actions as such operates only among Federal courts.[50] According, actions filed in state courts are not subject to this arrangment. This is a major deficiency[51] in this system.

Aviation accidents are fertile sources for multi-district litigation. Usually, a crash or an accident in aviation involves a large number of claims from different states which are filed against defendants located in other states. Because of diversity of citizenship these claims usually fall under the jurisdiction of the Federal courts. There are many examples in aviation litigation in which the described Multidistrict Litigation procedures were successfully applied in transferring and consolidating large numbers of claims. The case of the Turkish Airlines DC-10 crash in 1974 is perhaps the best illustrative example. In this case more than 200 suits were transferred and consolidated in the United States District Court of the Central District of California.[52]

(d) Admiralty Jurisdiction and the Death On The High Seas Act (DOHSA)

The Constitution of the United States contains a provision which provides that the jurisdictional power of the United States extends to all cases of admirality and maritime jurisdiction.[53] Pursuant to this provision the Congress,

designated the district courts to have exclusive original cognizance of all civil causes of admiralty and maritime jurisdiction.[54]

In 1920 the Congress of the United States passed the Death On The High Seas Act (DOHSA)[55] which creates a statutory action for maritime wrongful death. This Act which was written in broad language does not make specific reference to surface vessels. Section 761 of the Death On The High Seas Act provides:

> That whenever the death of a person shall be caused by wrongful act, neglect, or default occurring on the high seas beyond a marine league from the shore of any State, or the District of Columbia, or the Territories or dependencies of the United States, the personal representative of the decedent may maintain a suit for damages in the district courts of the United States, in admiralty for the exclusive benefit of the decedent's wife, husband, parent, child, or dependent relative against the vessel, person, or corporation which would have been liable if death had not ensued.[56]

With the advent of the air travel over the seas and the oceans, the courts began to extend admiralty jurisdiction under certain conditions, to actions created by aircraft crashes in the high seas. The provisions of the Death On The High Seas Act accordingly have been extended to tort actions created by aviation accidents on or over the high seas.[57]

In the face of a growing trend to expand admiralty jurisdiction over aviation torts the United States Supreme Court finally addressed this question. In Executive Jet Aviation, Inc. v. City of Cleveland,[58] the court laid down two conditions for the assertion of Federal admiralty

jurisidction over tort aviation. First, the wrong must occur over navigable waters, and second, there must be a significant relationship to traditional maritime activity. The Supreme Court did not exclude aviation tort action from admirality jurisdiction by placing these two conditions. In fact, the court indicated that an aircraft on a transoceanic flight might bear a significant relationship to traditional maritime activity because it would be performing a function traditionally performed by Waterborne vessels.[59]

In many aviation crashes involving product liability claims were brought under the provisions of the Death On The High Seas Act. Among the most important are Noel v. United Aircraft Corp.,[60] Middleton v. United Aircraft Corp.[61] and Krause v. Sud Aviation.[62]

2. In England and the Commonwealth

In general English courts will assume jurisdiction over a defendant in a civil action only if he is served with the writ in England and Wales or if he submits himself to the jurisdiction of the English courts.[63] Under certain conditions, however, the English courts will take jurisdiction in cases in which the writ is served outside England and Wales. A discretionary power is vested in the court to allow notice of the writ to be served outside jurisdiction under certain conditions prescribed in the Rules of the Supreme Court. One of these rules is particularly relevant to cases of product liability.[64] This rule states that service out of jurisdiction may be allowed where the action is founded on

a tort committed within the jurisdiction. It is reported, however, that the English courts restrictively interpret this rule and therefore do not make very much use of it.[65] This restrictive interpretation seems in line with a long and a traditional stand of English courts on this question. The English courts have generally refused to hold England to be the locus delicti, a requirement for assertion of jurisdiction, if the plaintiff has suffered damages in England but the other element of the tort causing that damage was committed outside that jurisdiction.[66] This reluctant attitude on the part of the English courts can be seen in the holdings in George Monro Ltd. v. American Cyanamid and Chemical Corporation,[67] Cordova Land Co., v. Black Diamond Steamship Corporation[68] and Distiller Co. (Biochemical), Ltd. v. Thompson.[69]

The Australian and the New Zealand courts position regarding assertion of jurisdiction over foreign defendant basically follow those of England.[70] In Canada the old cases which dealt with this question have generally followed the same traditional requirements as those which prevailed in England and the Commonwealth countries.[71] Service of the notice of the writ out of the jurisdiction was generally denied in a product liability claim where the defective product was manufactured elsewhere and only the ultimate injury occurred in the jurisdiction. An example of this is found in the holdings in Abbot-Smith v. Governors of University of Toronto.[72] This traditional attitude did not, however, continue in Canada. The Supreme Court of Canada in 1973 dealt effectively with this matter by initiating

a new approach. In the landmark case of Moran v. Pyle National (Canada) Ltd.,[73] the Supreme Court said:

> Where a foreign defendant carelessly manufactures a product in a foreign jurisdiction which enters into the normal channels of trade and he knows or ought to know both that as a result of his carelessness a consumer may well be injured and it is reasonably foreseeable that the product would be used or consumed where the plaintiff used or consumed it, then the forum in which the plaintiff suffered damage is entitled to exercise judicial jurisdiction over that foreign defendant.[74]

In this case a workman was electrocuted and consequently died in a potash mine located in the Province of Saskatchewan. The accident occurred when that workman was changing a light bulb in that mine. A claim was brought against the manufacturer of the light bulb alleging that the accident occurred because of the defective wiring in the base connection of the bulb. The defendant manufacturing company was a resident of Ontario and did not carry on business in Saskatchewan. The Supreme Court allowed the plaintiff's appeal for service out of the jurisdiction and laid down the above cited new formula that the forum in which plaintiff suffered damages is entitled to exercise jurisdiction.[75]

3. <u>In Continental Europe</u>

In Europe the national rules relating to jurisdiction in cases involving foreign elements have undergone some basic changes after the coming into force of the Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters of 1968 as of 1 January 1973.[76] The Convention was concluded among the six original Member States of the European Economic Community (the EEC) and an accession

treaty providing for extention of that Convention to Denmark, Ireland and the United Kingdom was signed 9 October 1978. The Convention deals with civil and commercial matters and product liability claims, undoubtedly, fall within the categories of cases covered by that Convention.[77]

The application of the Convention, however, is limited to actions among domiciliaries of the EEC Member States. The Convention does not apply in actions against nondomiciliaries. In the area of international product liability claims defendant manufacturers from non EEC Member States such as the United States and Japan for example, are still vulnerable to the broad national rules of the different states.[78] The coming to force of the mentioned convention has therefore created a situation in which two sets of jurisdictional rules exist: one operates among EEC domiciliaries and the other operates among non EEC domiciliaries.[79]

(a) Actions Among EEC Domiciliaries

The Convention provides an exclusive and uniform framework of rules for the assertion of jurisdiction involving domiciliaries of the EEC Member States in cases dealing with civil and commercial matters. The basic principle relating to jurisdiction over a defendant's residing in a contracting state is contained in Article 2 of the Convention. According to this Article "subject to the provisions of this Convention, persons domiciled in the territory of a contracting state shall irrespective of their nationality be sued in the courts of that state."[80] Thus, defendant's domicile is the basic

jurisdictional criterion and the nationality element is largely a relevant factor. The Convention, however, lists special situations under which a defendant may be sued in a court other than in his domicile. Section 3 of Article 5 is particularly relevant to products liability claims. Under that provision, in matters involving tort, delicit or quasi-delicit, it is allowed to sue a defendant in the courts of the place where the harmful event occurred.[81]

The Convention contains no definition of many key terms. With the exception that national law is to be used for determination of the domicile,[82] the Convention does not prescribe elements or factors to be considered in its interpretation. To avoid the dangers of divergent interpretation of the Convention and achieve maximum uniformity the Convention's signatories concluded a protocol under which questions concerning the interpretation of the Convention may be referred by a national court to the Court of Justice of the European Community.[83] The mentioned Court has dealt with several questions involving the meaning of the Convention that arose under the provisions of the Convention on many occasions. Among these questions, the Court of Justice dealt with the question of jurisdiction in tort cases. The Court rendered an interpretation for Article 5(3)(3) of the Convention relating to meaning of the place where the harmful event occurred. This matter often gives rise to the classical question whether the act or the injury is the decisive element. The Court decided that the place where the harmful

act occurred could not be interpreted in terms of national law, but required a uniform interpretation under the Convention.[84] The place where the harmful act occurred must be understood as being intended to cover both the place where the damage occurred and the place of the event which gave rise to that damage, the Court said.[85] According to this interpretation a product liability claim could be brought both where the defendant manufacturer acted negligently in making the product and also where the harmful impact or injury occurred.

(b) Actions Involving Non-EEC Defendants

The jurisdictional rules of the Convention do not apply in actions against non EEC defendants. Article 4 of the Convention discusses jurisdiction over persons not domiciled in the EEC and extends to a non-national EEC domiciliary the right to invoke national rules relating to jurisdiction against non-domiciliary defendants. According to that Article: "If the defendant is not domiciled in the territory of a contracting state, the jurisdiction of the courts in each contracting state shall be governed by the laws of that state, subject to the provisions of Article 16."[86]

The provisions of this Article leaves foreign defendant manufacturers involved in product liability claims face to face with the famous exorbitant national jurisdictional bases available in individual states. Not only that but purusant to the terms of the Convention on unconditional recognition of judgment, a judgment rendered against a defendant

manufacturer on the basis of rules of exorbitant jurisdiction will be recognized and enforced throughout the EEC.[87]

The famous strong national long arm rules which potentially can be invoked by the courts in Europe to assert jurisdiction against foreign manufacturers in product liability claims are summarized in the following:

1. In France and Luxembourg, any French or Luxembourg national may sue in his court even if there is no connection between the cause of action and the court. Jurisdiction rests on the basis of the plaintiff's nationality. (Articles 14 and 15 of the French Civil Code, Article 14 of the Civil Code of Luxembourg)
2. In Germany, jurisdiction rests on the basis of presence of property of the defendant in Germany. (Section 23 of the German Code of Civil Procedure)
3. In the Netherlands and in Belgium, a defendant who is not domiciled or resident in these countries may be sued in the court of the domicile of the plaintiff. (Article 126(3) of the Netherlands Code of Civil Procedure, and Article 638 of the Belgian Code of Civil Procedure)

The retention of these broad national rules, which was strongly criticized, may in the view of the present increased circulation of products and parts, create some difficult conflict of law situations in product liability litigation.[88] Also, beside encouraging "forum shopping" and "defendant shopping", retention of these rules puts non EEC defendants (including defendant manufacturers) in a discriminatory position.

C. Choice of Law

1. Background

The preceding section of this chapter has dealt with jurisdictional questions associated with an international aviation products liability litigation. The different jurisdictional approaches and bases available under national laws of several countries have been briefly explored. This section will deal with another aspect of conflict of laws - the choice of applicable law.

Once a court assumes jurisdiction in an aviation product liability litigation involving foreign or interstate contacts an important question usually arises as to which law should be applied to determine or govern the substantive issues in that particular controversy. Because the law which may be applied to the substantive questions in such a litigation is frequently different from one country to another, parties usually argue for the application of the particular law which is most favorable to their interests. There are many substantive questions which are present in an international or inter-state aviation products liability for which the law can be in conflict. These issues may include application of the res ipsa loquitur, privity requirement, recognized warranties, recovery provisions, statutes of limitation, defenses, damages, persons who may benefit and the mode of distribution and others.[89] The complexities that can arise in an aviation product liability litigation is illustrated in the number of conflict of law

questions which were present in an sample aviation products liability case cited by Kreindler.[90] The case which was predicated in negligence and breach of warranty had contacts in several states in the United States. Kreindler points out that the following case gave rise to the following conflict of law questions:

1. What conflicts law was applicable?
2. What law governed negligence?
3. What law governed warranty?
4. What law governed contributory negligence, and its relationship, if any to warranty?
5. What law governed damages for negligence; and for breach of warranty?
6. What law governed the degree of proof required to make out a prima facie case?
7. What law governed disclaimers of warranty?
8. What law governed such possible express warranties as advertisement.[91]

In dealing with questions such as these recourse is generally made to the general principles of choice of applicable law in tort and in contract. In the United States the American courts have rendered many decisions in aviation products liability cases involving choice of law questions. The American case law provides different approaches and solutions to the choice of law questions.[92] Outside the United States, however, decisions relating to choice of law in aviation products liability do not exist.[93]

Before exploring the different solutions and approaches which have been developed in different countries and also

those which evolved on the regional and international levels two general observations will be made. One relates to the characterization of the nature of the claim of the products liability and the other relates to the issue of "substantive" versus "procedural" matters. Characterization of a product liability claim as tort traditionally leads to the application of orthodox doctrine of the lex loci delicti rule in both civil and common law countries.[94] This type of characterization is made usually for products liability claims predicated in negligence and in strict liability in torts. Application of the traditional lex loci delicti rule leads to invoking either the law of the state where the harmful conduct was carried out (place of the manufacturer) or the law of the state where the injury occurred.[95] Although the lex loci delicti is still the determinative factor in some countries, the doctrine is, however, fading away as modern approaches are developed. Characterization of the products liability claim, on the other hand, as contractual in nature (claims based on express or implied warranty) leads to the application of one of several rules such as the law of the state of sale, place of delivery and place of performance.[96] As to the second observation regarding "substantive" versus "procedural" matters in regard to choice of law question it is generally settled that the law of the forum where remedy is sought governs matters of procedure.[97]

With this background, the remainder of this section will examine the current approaches and solutions of choice of law available under both national and international levels.

2. Solutions Available Under National Law

(a) In the United States

(1) The Transition from the Orothodox to the "Modern" Approaches

The swift development of products liability law in the United States has presented a challenge to the conceptual fabric of the conflict of laws. As products liability law has advanced from theories of negligence, breach of express or implied warranty to strict liability in torts, also the conflict of laws rules had to undergo an almost revolutionary change to keep abreast of these changes. Conflict of law in regard to products liability has evolved from the traditional concept of the place of injury (lex loci delicti) to the concept of most significant contacts and finally to the "governmental interests" approach.[98]

These swift developments in the choice of law rules have taken place in both areas of products liability claims: torts (negligence and strict liability claims) and also in warranty claims (both express and implied warranty).[99] The following is a brief presentation of these developments starting from those which occurred in the field of torts.

Under the traditional choice of law rules, the primary characterization of products liability as tort would lead as mentioned earlier to the application of the lex loci delicti rule, "the law of the place where the wrong took place". The general rule is that the place of "wrong", within the contemplation of the lex loci delicti rule, is either the place where the injury was inflicted or the place where the

allegedly wrongful act (manufacture) took place.[100] The place of injury has been a favored rule. Whether this doctrine is justified under theories of comity or vested rights, it assumes that the situs of the wrong always has the greatest interest. The rule of lex loci delicti was adopted by the first Restatement of Torts in 1934[101] and was applied by all the states. However, by the early 1960's the doctrine of lex loci delicti came under heavy attack. The rule "was ill-suited to decide cases which arose out of interstate mobility of persons and products."[102] Its mechanical application resulted sometimes in "choice of law by chance."[103] In 1961 the doctrine received the first blow in the decision rendered in Kilberg v. Northeast Airlines, Inc.[104] and finally in 1963 in lex loci delicti was overruled in Babcock v. Jackson.[105] The court in this case announced that justice and fairness would best be achieved in tort cases with multi-state contacts by giving controlling effect to the jurisdiction that has the greatest concern with the issue involved. In this case the court abandoned the traditional lex loci delicti rule in favor of the "center of gravity" or the "most significant contact" doctrine.

The doctrine of the "most significant contact" was adopted by the Restatement (Second) of Conflict of Laws, which revised its original position about the lex loci delicti and adopted the principle that the law of the state having the most significant relationship with the occurrence and with the parties determines their tortious rights and liabilities.[106] The "center of gravity" or "the most

significant contact" approach, however, became also a target for criticism. This approach was described to provide no standard for determining what contacts are significant. The courts tended to mechanically count contacts with little analysis, it is argued.[107] Criticism of the most significant contact rule led to the emergence of a third approach the "governmental interest" test. Pursuant to this approach the court identifies the states or the countries which have an interest in a particular issue and the relevant substantive laws of those concerned states or countries. Having done that analysis the court then determines which jurisdiction among those concerned ones had the greater interest in that controversy.[108]

It should be mentioned, however, that the development of these new choice of law rules does not mean that the lex loci delicti has necessarily vanished. The highest courts of some American jurisdictions have considered the new approaches for choice of law but, however, rejected them prefering adherence to the lex loci delicti with its simplicity, predictability and certainty. In those jurisdictions the lex loci delicti is still therefore the operative principle.[109]

The development which has occurred in choice of law rules in products liability claims based in warranty is by no means less than that which occurred in the field of tort.[110] Products liability actions based on warranty have traditionally been held to be controlled by the "lex loci contractus", the

law of the place where the product was sold. With the introduction of the Uniform Commercial Code and the Restatement of Conflicts of Laws (Second), however, this principle of lex loci contractus has been substantially changed. The Uniform Commercial Code does not attempt to impose rules for choice of law in warranty-based claims. The parties are left with broad power to select the law of the state to which the transaction bears reasonable relation. However, in the absence of that selection the Code provides that "the law of the state bearing appropriate relation to the transaction will apply."[111] The most significant change to the orthodox rule of lex loci contractus has come about, however, by the solution provided by the Restatement of Conflict of Laws (Second). The Restatement provides that each issue arising under contract shall be determined by the local law of the state which, with respect to the particular issue, has the most significant relationship to the transaction and the parties.[112] This provision brings the process of choice of law rules in products liability claims based on warranty claims in line with the same process followed in claims pursued in torts. Under both types of claims the trend has essentially moved from the traditional basic concepts of lex loci delicti (in torts) and lex loci contractus (in contract) to proceeding with analysis to find the most significant relationship or contact in the particular controversy.

(2) Application to Aviation Products Liability Cases

a - Claims Based in Torts

1 - The lex loci delicti rule

The traditional rule of lex loci delicti, although abandoned by many jurisdictions in the United States in favor of the modern approaches, is by no means dead. Some jurisdictions refused adherence to the "modern" approaches preferring the certainty and predictability of the lex loci delicti.[113] This doctrine has been applied in many aviation products liability cases involving choice of law questions. Courts dealing with actions against aircraft manufacturers have generally answered choice of law problems by ruling that the governing substantive law is the law of the place where the crash occurred. Thus, in Boeing Airplane Co., v. Brown,[114] the United States District Court for Western District of Washington under the conflicts rule of that state applied the law of California where the airplane crash occurred. The same approach to choice of law was followed in the following two interstate aviation products liability cases: Prashker v. Beech Aircraft Corporation,[115] and Beasley v. Fairchild Hiller Corporation.[116]

The doctrine of lex loci delicti was also applied in international cases. In McDaniel v. Petroleum Helicopters, Inc.[117] following an aircraft crash in Colombia, South America, a product liability suit was brought against the aircraft manufacturer in the United States District of Louisiana at New Orleans. The Court entered a judgment

against the manufacturer. Upon appeal by the manufacturer the United States Court of Appeals Fifth Circuit held that the federal district court in Louisiana erred in refusing to apply the Colombian law limiting amount recoverable for loss of love and affection in wrongful death. The United States Court of Appeal said:

> The tort sued upon was statutorily-created one, thus presenting a classic case for the application of lex loci, on the theory that since the law of the state or country where the tort occurred created the right to sue thereon, it alone should define the scope of that right.[118]

The doctrine of lex loci delicti was also invoked in other international aviation products liability. In Quandt v. Beech Aircraft[119] involves a products liability suit by heirs of a passengers of a plane which crashed in Italy. The suit was brought in the United States District Court in Delaware where the aircraft manufacturing company was incorporated. The defendant manufacturer, however, maintained its principal office and major plants in Wichita, Kansas. The United States District Court in Delaware transferred the action to Kansas for the convenience of the parties. The court in ruling on the choice of law question however said that the Delaware conflict of law rule would require a court sitting in Delaware to apply the substantive law of Italy to the negligence charges of the compalint. The court further said that there would appear to be no difficulty for the Kansas District Court to apply the Delaware conflict of law rule in this case since the transferee court is bound to apply the state law that would have been applied if there had

been no change in venue.[120] It is interesting to note that the law of Italy was also applicable in another similar but older aviation product liability case involving a crash in Italy. Applying Illinois conflict of laws principles the United States District Court for the Northern District of Illinois in Manos v. Trans World Airlines, Inc.[121] held that Italian law should be applied to determine whether in fact a tort was committed.

2 - The Most Significant Contact Doctrine

In Melton v. Borg-Warner Corp.,[122] plaintiffs brought products liability action in the United States District Court of the Western District of Texas. The action arose out of helicopter crash in Germany. The issue presented in this case is whether the court should apply in the choice of law the law of the place with the "most significant contacts" or the lex loci delicti. The Court held that: (1) a 1975 amendment to applicable law statute has changed the traditional Texas tort choice of law rule from applying law of place of injury to applying law of place where the "most significant contacts" occurred, and (2) under the circumstances, Texas had most significant relationship to the occurrance and the parties. Accordingly the court ruled that Texas substantive law would determine parties' rights and liabilities. In reaching this decision the Texas court noted the following relevant factors: (1) the injury occurred in Germany, (2) the conduct causing the injury occurred primarily, if not completely in Texas since the helicopter

was manufactured, assembled, prepared for shipment and delivered into the stream of commerce in Texas, (3) plaintiffs are citizens of the United States and domiciliaries of Texas. Having analyzed these contacts the court said that Texas overwhelmingly has the most significant relationship.[123] In Bruce v. Martin-Marietta Corp.,[124] a product liability action was brought against the aircraft manufacturer and the airline for injuries and death when an aircraft crashed in Colorado. In determining the choice of law question in the product liability case against the aircraft manufacturer the court said the state in which injuries and death occurred was of relative minor importance inasmuch as the airplane had been a transient passing through the state. The Court then moved to the different contacts associated by the crash and held that the law of the State of Maryland where the aircraft had been manufactured and designed is applicable to the respective rights and duties of the parties.

OKeefe v. Boeing Company,[125] a product liability case, arose out of the crash of an Air Force B-52. The crash occurred during a training flight in the State of Maine. The aircraft was manufactured and sold by the defendant Boeing Company in the State of Washington. The aircraft was then stationed at an Air Force base in the state of Massachusetts. The crew members of the B-52 were from several parts of the United States. Decendent OKeefe was the only citizen of New York where the suit was brought. The United States District Court, S.D. New York followed the Babcock v. Jackson[126] rule and ignored the rule of lex loci

delicti. Instead the court ruled that the law of the State of Washington where the aircraft was designed, manufactured, sold and delivered governs the plaintiff's claim.

3 - The "Governmental Interest" Doctrine

The "governmental interest" approach was utilized in choosing the applicable law in the litigation which followed the famous DC-10 crash near Paris on March 3, 1974.[127] The United States District Court of the Central District of California in a decision rendered on August 1, 1975 held that the law of the State of California is applicable to the assessment of damages. Government interest of the United States, and particularly, the State of California, in the design and manufacture of aircraft were significantly greater than the interest of any other states or nations, such as to require application of California law to the issue of damages.[128]

The Paris Air Crash of March 3, 1974,[129] case generated some difficult conflict of laws questions. The crash which was caused by a sudden opening into the aircraft's pressurized baggage compartment occurred few mintues after the aircraft's departure from Paris. The crash of DC-10 of the Turkish Airline (THY) caused the death of all human occupants (346) aboard including the 13 crew members. The decendants were nationals of 24 countries and at least 12 of the United States. The list of those countries includes: Argentina, Australia, Brazil, Canada, Cyprus, Denmark, England, France, India, Ireland (United Kingdom), Republic of Ireland, Italy, Japan,

Morocco, New Zealand, North Korea, Pakistane, Senegal, South Vietnam, Switzerland, Turkey and the United States. The "domicile" of some of the decendants of a single claim at the time of the crash was in different states or countries. In one random claim the decedants were citizens and domiciliaries distributed among four countries: France, the United Kingdom, Morocco and Israel. Pursuant to the Multidistrict Litigation Act (28 U.S.C. Sec. 1407 (1968) 203 cases were transferred and consolidated in California, the seat of the principal manufacturer.

The defendants, United States, two American Manufacturer (McDonnell Douglas and General Dynamics) and the Turkish Airlines agreed to a formula among themselves that precluded litigation on the issue of liability. This was achieved by an agreement among the defendants to divide the damages among themselves. The choice of law to apply to the assessment of damages was the sole issue left for settlement or trial. Plaintiffs advanced various arguments as to which law should be applied to damages.[130] The Japanese plaintiffs for example, urged the court to apply the Japanese law for Japanese claimants because they asserted that Japanese law is more liberal than California law. Other requests were made for the application of the law of: (1) California, (2) domicile of decendents, (3) domicile of claimants, (4) France, (5) Japan and (6) California plus French "moral" damages. In determining the measure of damages the U.S. District Court, however, noted the different jurisdictions involved and insisted on the need to apply a single law to the multitude

of claimants before it. After analysis of the policies of the various jurisdictions represented, the court found that the United States and the State of California have a governmental interest in applying the law of California whose interest in this case was significantly greater than the interest of the countries or states of which either the decendants or claimants are citizens. The court said the United States has a great concern with its designers and manufacturers of such products and anyone injured throughout the world should be assured that he can obtain recourse under the law of the state of design and/or manufacturer.[131] Since the aircraft was designed, constructed, manufactured and tested in California, the interest of California were identified as follows: (1) deterring tortious conduct of the California defendants, (2) avoiding excessive financial burdens on its resident defendants and (3) providing a uniform rule of liability and damges for those who come under the ambit of California strict product liability law.[132]

Judge Peirson M. Hall in his invoking these considerations has departed from all classical rules and doctrines of conflict of laws. In somewhat the most important decision in modern aviation, Judge Hall opened new frontiers in the field of conflict of laws by his artful utilization of the modern doctrine of government interests and rendered practical, uniform and equitable results in that complex multi-claim litigation. The decision was reached by the following reasoning:

> The United States has preempted the field of regulating aviation to the extent that no plane manufactured anywhere in the United States can fly without a United States certificate of airworthiness, that the United States Government has as much, or greater, interest in the products which it certifies as airworthy as any state or any nation in order to insure the integrity of its products in this very competitive world market and also to insure that anyone coming within the ambit of strict products liability shall know that its liability for a defect shall be uniform, no matter where or how the defect is discovered, through accident or otherwise.
>
> As a corollary to the aforementioned integrity of the product put in commerce, the United States has a great concern with its designers and manufacturers of such product. Anyone injured throughout the world should be assured that he can obtain recourse under the law of the state of design and/or manufacture. There is no indication that the designers or manufacturers would be amenable to process or otherwise liable to suit in any other nation of the world.[133]

This decision has received a great deal of attention by scholars and commentators.[134] The decision will, undoubtedly, stand as an outstanding precedent not only in conflict of laws involving aviation but also in other litigation involving similar situations.

b - Claims Based on Breach of Warranty

Breach of warranty actions are generally characterized as contractual in nature.[135] This characterization usually resulted in the application of the law of the state where the sale or the delivery of the product involved took place.[136] This approach has been followed in many aviation products liability cases although some courts, did not adhere to it preferring other approaches.[137] Examples of applying the law of the place of aircraft sale to govern allegations based on

breach of warranty is the case of Manos v. Trans World Airlines, Inc.[138] and Holcomb v. Cessna Aircraft Company and Continental Motors.[139] In the Holcomb decision the Fifth Circuit Court approved the Florida trial courts holding that allegations based on breach of expressed and implied warranties was to be governed by the law of Kansas, the place where the involved aircraft was sold.[140]

The rule that the law of the place of sale governs products liability claims based on breach of express or implied warranty was also upheld in the Manos case.[141] In this case which involved a TWA 707 jet airliner crash in Rome, Italy, the United States District Court of the Northern District of Illinois noting that Illinois conflict of laws principles require the application of the law of the place where the product was sold to determine allegations of express or implied warranty concluded that the law of the State of Washington should apply. In the same decision, however, the court held that the law of the place of the tort (Italy) determines the claims based in tort.[142]

It is important to mention, however, that the American courts did not always apply the law of the place of sale or delivery. There are several cases in which the courts took other stands on the issue of choice of applicable in regard to breach of warranty claims. The decision in George v. Douglas Aircraft Co.,[143] is an example. In this case an action by crew members was brought in New York against an airplane manufacturer for injuries sustained in a crash. The crash occurred in Florida as a result of an engine failure,

which occurred shortly after takeoff from Miami enroute to South America. The claim was based on breach of warranty. The United States Court of Appeals (Second Circuit) held the view that the law of the place of injury (Florida) is applicable and not the law of the place of sale or delivery. The court said:

> We think New York would look to the law of the place of injury, here Florida, rather than to the law of the place of manufacture or of delivery to determine whether liability existed. This prediction is buttressed by what our own view would be apart from these helpful intimations. The interest protected by the imposition of strict liability on a manufacturer is, as Dean Pound pointed out, the interest in maintaining 'the general security... An accident caused by a defective product threatens the 'general security' of the state where the injury occurs rather than of the state of delivery, which is often determined by tax or other considerations wholly extraneous to the instant problem, or even of the state of the manufacturer.[144]

The same result of applying the law of the place of injury was reached in Uppgren v. Executive Aviation Services, Inc.[145] The court in this case, however, reached this conclusion through characterization of the cause of action as in tort rather than contract. In an action for death of a government employee based on breach of implied warranty the court applied the law rule lex loci delicti. The helicopter was manufactured by a Texas corporation, sold and delivered to the government in Maryland and crashed in Minnesota. The United States District Court for the District of Maryland after a lengthy discussion of the historical development of the warranty concept and its relation to both contract and tort concluded that the rule of lex loci delicti results in the application of Minnesota law. This decision seems to be

based solely on the characterization of the breach of warranty action as tort rather than contract. The court took this stand despite both parties favoring the court to deal with that problem by application of contract-conflict rules.[146]

(b) In England and the Commonwealth

The remarkable development in choice of applicable law questions and the emergence of different solutions to conflict of law problems in the realm of products liability litigation in the United States has not been matched in the common law of England and the commonwealth countries.[147] Old and traditional law concepts seem to still dominate the legal thinking in that area of the law in those countries. This situation may be attributed, as one commentator points out, to the fact that the courts in those jurisdictions compared with the courts in the United States, have been presented with fewer situations which called for the decision.[148]

In the absence of case law or statute dealing directly with choice of law questions in the field of products liability litigation in those countries the general rules and principles of choice of law in tort are applicable. Under the choice of law rule in tort laid down more than one hundred years ago in Phillips v. Eyre,[149] a plaintiff seeking to recover for an act committed in a foreign country would have to satisfy two conditions: first, the act or the wrong must be actionable under English law if it is committed in England and second, that the act is "not justifiable" by the law of the place where it was committed.[150] Unjustifiable

in that sense was interpreted by the English courts to mean "wrongful" or "not innocent". It did not necessarily mean an act for which a civil liability is prescribed or required under the law of the lex loci delicti.[151] This tendency on behalf of the English courts was confirmed in the landmark case of Machado v. Fontes.[152] In this case libel in a Portugese language pamphlet published in Brazil was held civilly actionable in England even though it was assumed that under Brazilian law no damages would have been awarded to that act.

In 1971 the House of Lords rendered an important decision in Chaplin v. Boys.[153] This decision, however, contained a diversity of judicial opinions. In this decision the House of Lords has modified the "unjustifiability" requirement. It is not sufficient for the act to be "unjustifiable", rather plaintiff must go further and show that the act complained of is actionable under the lex loci delicti. The rule that emerged after the Chaplin decision is that of a double actionability test; that is to say that an act done in a foreign country is actionable as a tort in England only if it is a tort under English law and it is actionable according to the law of the foreign country where committed. The Chaplin case involved a road traffic accident in Malta in which both parties were British soldiers stationed in Malta. A soldier ran over a British airman on a motorcycle. Under both the English law and the Maltese law (the lex loci) a tort has been committed. However, the extent of available damages were considerably different in two countries. The

issue raised in the case was, therefore, whether English law or Maltese law should be applied to the question of damages. The House of Lords applied English law alone since it was ruled that the parties have only temporary links with Malta and the acts involved had no special Maltese features.

The present choice of law in tort in England is stated in rule 178,[154] of Dicey and Morris on the Conflict of Laws:

> (1) As a general rule, an act done in a foreign country is a tort and actionable as such in England only if it is both
> (a) actionable as a tort according to English law, or in other words is an act which, if done in England, would be a tort, and
> (b) actionable according to the law of the foreign country where it was done.
> (2) But a particular issue between the parties may be governed by the law of the country which, with respect to that issue, has the most significant relationship with the occurrence and the parties.

The Canadian and the Australia courts have generally adhered to the general rules provided under Phillips v. Eyre[155] and Machado v. Fontes.[156] The new rule of "double actionability" as presented in the English case of Chaplin v. Boys[157] has not, however, been yet accepted.[158] Accordingly the courts generally apply the traditional requirement of actionability under the lex fori and "unjustifiability" under the lex loci delicti.[159] The Chaplin decision was noted by the Supreme Court of British Columbia in the case of La Van v. Danyluk[160] but was not, however, given effect. The case involved a collision which occurred between two British Columbia vehicles in the State of Washington while occupants were on a temporary visit. The plaintiff was found to have been contributorily

negligent. Under the law of the State of Washington contributory negligence constitutes a complete bar to the plaintiff's claim. Yet, the court finding that the defendant's conduct was "not justifiable" by the law of Washington, in that he exceeds the speed limit, the court applied the law of British Columbia contributory negligence for the approtionment of the damages. The court in this case recognized the change brought about by the Chaplin decision. However, did not apply the Chaplin interpretation to that case.

Whether or not the Supreme Court of Canada will decide to follow the House of Lords in Chaplin v. Boys[161] and lay down a double actionability requirement is not clear.[162] Until that step is done, however, two signals for change in the Canadian Conflict of Law in torts have already appeared in the draft of two instruments. In 1966, a Special Committee of the Commissioners on Uniformity of Legislation in Canada (now known as the Uniform Law Conference of Canada) proposed the following draft. The influence of the "most significant contact" contained in the American Restatement (Second) of Conflict of Laws is evident:

> When deciding the rights and liabilities of the parties to an action in tort, the court shall apply the local law of the state which has the most substantial connection with the occurrence and with the parties regardless of whether or not the wrong is of such character that it would have been actionable if committed in this Province.[163]

The other signal for change came from Quebec. The Private International Law Committee of the Civil Code Revision Office of Quebec has suggested the law of the plaintiff's habitual residence for choice of law rule. This suggestion

was contained in Article 31 of the Committee's Final Report for 1977.

> Extra-contractual civil responsibility is governed by the law of the domicile (habitual residence) of the plaintiff at the time the act which caused the damage occurred. However, the defendant may raise a defense based on the lawfulness of the act and the absence of any obligation for him to repair, in accordance with the law of the place where the act which caused the damage occurred, provided he had his domicile in such place.[164]

This committee proposed another provision which is of direct interest to products liability claims. This provision which is to be read in conjunction with the above cited provision is almost similar to the foreseeability condition placed in the Hague Convention on the Law Applicable to Products Liability (Article 7) which will be discussed later. According to this provision the

> defendant manufacturer whose products has caused damage may not invoke the second paragraph of Article 31 unless he establishes that he could not reasonably have foreseen that the product, or his own products of the same type would be marketed in the state where the plaintiff was domiciled.[165]

(c) <u>In Continental Europe</u>

In Continental Europe the choice of law in tort is dominated by the doctrine of lex loci delicti. However, although the orthodox doctrine has enjoyed an extensive role its operation has been subject to exceptions of varying degrees of sophistication.[166]

The doctrine of the lex loci delicti has been adopted explicitly by some European Civil codes. While in other jurisdictions in the continent the doctrine was adopted by

implication. The Italian Civil Code explicitly provides that:

> Non-contractual obligations are governed by the law of the place where the facts from which they rise took place.[167]

In some jurisdictions such as France, Belgium and Germany this result was reached through the judicial interpretation of some Articles of civil codes of those countries. Thus, this result was reached in Germany by the implication of the following provision of the German Civil Code (E.G.B.G.B.) which provides:

> By reason of an unlawful act committed in a foreign country, no greater claims can be enforced against a German than those created by German law.[168]

The courts in France and Belgium concluded that the law of the foreign lex loci delicti should determine the consequences of tortious acts pursuant to Article 3(1) of their Civil Codes. The French Cour de Cassation has settled this issue by adopting the lex loci delicti approach in its landmark decision in Lautour C. Guiraud[169] in 1948.

As to the problem of the definition of the lex loci delicti in terms of reference to the place of wrong or injury three approaches may be cited.[170] These three approaches to the question of the definition of lex loci delicti are represented in three different provisions of the laws of Poland, the Democratic Republic of Germany and Portugal. The Polish Law on Private International Law of 1965 provides that lex loci delicti is "the state in which the event giving rise to the obligation occurred."[171] The Polish law in its ambiguity seems to leave room for judicial interpretation.

The Conflict of Laws Statute of the German Democratic Republic of 1975 makes it rather clear. The lex loci delicti is "the state in which the injury was caused."[172] The third approach favors, the place of acting. Where, however, the defendant acts in more than locations, the place where "the principal activity causing the damage"[173] is decisive in determining the lex loci delicti. In case of liability for omission, the law of the place where the party responsible should have acted shall apply. This third approach has been adopted by the Portugese Code of 1966.[174]

Although reference of choice of law to the lex loci delicti has emerged as the dominant principle in Continental Europe, the operation of that principle has been frequently curtailed or replaced by the law of the forum in which proceedings have been made. The different techniques which have been followed by the courts to avoid or limit the application of the lex loci delicti are generally based upon consideration of one of the following factors:[175]

1. Common "personal law" of parties
2. Reservation of lex fori in favor of one party
3. Jurisdictional limitation
4. Proof of foreign law
5. Public policy
6. Civil vs. criminal characterization of proceedings.

In view of these considerations the tendency of the courts to deviate from the orthodox rule of lex loci delicti has varied to different degrees. While the courts of some countries such as the German courts have shown more readiness

to disregard the lex loci delicti principle in favor of applying the German law especially when one or all parties are German nationals the French jurisprudence remained less receptive to change.[176]

The different tendencies on behalf of the courts vis-a-vis the lex loci delicti principle are shown in the relatively few products liability cases involving choice of law questions litigated in Germany, the Netherlands and France. The German courts, for example, in all the few cases of products liability involving choice of law, none of which are aviation cases, have channeled the choice of law process toward the German law.[177] The rule available in 12 E.G.B.G.B. cited earlier provides in essence that a German defendant shall not be held liable beyond the extent of liability placed on him by the German law. This rule can, of course, always provide a public policy instrument in the hands of the German courts to invoke the German law in favor of a German defendant manufacturer. The effect of this rule in regard to choice of law in products liability has been described by one commentator as follows:

> Its effect is that a foreign law to which the tort conflicts rule would refer is set aside if and to the extent that German law in the case in hand either does not recognize any right of action, or only one resulting in a lower amount of damages, against the German defendant.[178]

The French jurisprudence, on the other hand, has generally adhered to the lex loci delicti. Although no recent products liability cases involving choice of law question has been reported an old aviation products liability case may help

to illustrate the position of the French courts. The case is reported by Duintjer Tebbens.[179]

The case involved a crash of a California made helicopter.[180] The crash occurred in a French airport and caused the death of its pilot a French national. The French pilot's widow brought a product liability claim alleging a defect in the control-column of that aircraft. The defendant manufacturer pleaded the law of California as the law of the place of the alleged wrong. The court noted that since the plaintiff did not plead presumption of liability a proof of "fault" on the part of the manufacturer was needed. The court then made a reference to the applicable law to control the delictual liability. The court said that the law of the place where the wrong has been committed, and in this case California, will apply. After stating this principle, however, the court said if a defect in the aircraft could be imputed to the manufacturer, his liability would have to be judged by reference to the law of California. Failing, however, to find any imputable design defects the court dismissed the action. Although, reference was made to the fact that the manufacturer had complied with American, French and International regulations concerning airworthiness the course of the trial and the dismissal of the case did not seem to have provided an opportunity for the actual application of the law of California pursuant to the lex loci delicti test.

3. On the Regional and International Level

(a) The EEC Draft Convention on the Law Applicable to Contractual and Non-Contractual Obligations

This Draft Convention owes its origin to the efforts of a working group of legal experts nominated by the Commission of the European Economic Community from the six original Member States.[181] The assignment of a Draft Convention dealing with choice of applicable law went to that working group early in 1970. The Draft Convention which contained 36 Articles was completed in June 1972. This Draft Convention is at present under negotiation among Member States of the community.[182]

Certain matters are excluded from the scope of application of this Draft Convention.[183] Litigation involving products liability is, however, not excluded.

The Draft Convention basic premise for choice of law in non-contractual obligations is referred to the law of lex loci delicti. Article 10 provides that:

> Non-contractual obligations resulting from an event causing damage shall be governed by the law of the state in which such event occurred.[184]

This basic rule, however, will not be operative when no significant link exists between the situation resulting from the event which caused the damage and the state in which the event occurred.[185] If, such a situation has "predominant connection" (connection preponderate) with another state, the law of that state will apply regardless of the lex loci delicti.[186]

As to choice of law relating to cases involving

contractual obligations the Draft Convention puts great deal of emphasis on the particular law chosen by the parties.[187] Where no express or implied choice of law is available, however, the Draft Convention designates the law of the state with which the contract is "most closely connected" "presente les liens les plus etroits".[188] That state is identified in the Draft Convention Article 4(1) as follows:

> "(a) that in which the party who is to carry out such performance as is characteristic of the contract (la partie qui doit fournir la prestation characteristique) has his habitual residence at the time of contracting.
>
> (b) if the characteristic performance is due in execution of a contract concluded in pursuance of professional activity, that in which such party had his principal place of business at the time of contracting, or
>
> (c) that in which such party has a secondary place of buisness if it results from the contract that the characteristic performance will be carried out by that place of business.
>
> (3) The preceding paragraph shall not apply if the characteristic performance, the habitual residence, or the place of business cannot be determined or if it results from all the circumstances that the contract is more closely connected with another state."[189]

It is evident from these basic provisions of the choice of law in both matters of contractual and non-contractual that the drafters of this convention has been influenced by the American approach of "most significant relationship". The most significant relationship approach has been codified in the American Restatement (Second) of Conflict of Laws.[190] If this Draft Convention is adopted in the future, the choice of law process of the EEC Member States will closely resemble the American law in this field. The Restatement of Conflict of Laws (Second) adopted by the most jurisdictions of the United States provides that choice of law in torts is determined by the local law of the state which has the most significant relationship to the occurrence and to the parties.[191]

(b) <u>The Hague Convention on the Law Applicable to Products Liability 1972</u>

This Convention which has been briefly reviewed in an earlier chapter adopts a novel approach to the choice of applicable law in products liability cases. Rather than designating the general rule of the lex loci delicti and then prescribe exceptions to it, this Convention lays down a basic framework of choice of legal process which rests on two main premises; first no single contact should be taken alone to determine the applicable law and second, the applicable law should be reasonably foreseeable by the manufacturer.[192]

The Convention designates two basic connecting factors one of which would be the place of the applicable law when coincidental with other factors prescribed in the Convention.

These two basic connecting factors are: (1) the location of the injury, and (2) residence of the victim. Accordingly, two hierarchical applicable law options are available. Each is centered around the one or the other of the mentioned connecting factors.[193] In the first option the law of the state of the place of injury will be determinative if that state is also

(a) the place of the habitual residence of the person directly suffering damage, or
(b) the principle place of business of the person claimed to be liable, or
(c) the place where the product was acquired by the person directly suffering damage.[194]

On the other hand, if this first option is not satisfied the second option, the law of the state of the habitual residence of the victim, will be applicable if that state is:

(a) the principal place of business of the person claimed to be liable, or
(b) the place where the product was acquired by the person directly suffering damage.[195]

In situations where none of these two alternatives can be satisfied the Convention designates the law of the place of the principal place of the business of the manufacturer.[196] It is evident that by following this novel approach the Convention has laid down hard rules for choice of law. These rules are based on balanced and substantial relationships related to both the parties and also the the occurrence of the act causing damage. The election of at least two contacts to determine choice of law will not, most likely, lead to the application of a fortuitous law which has only an accidental interest to the parties. The Convention points

out to relevant contacts such as the habitual residence of the victim, principle place of business of the defendant, the place where the product was acquired and the place of injury. All these contacts are significant in products liability choice of law.

Application of these variety of alternatives and solutions in the choice of applicable law process is, however, made subject to the realization of one condition, the reasonable foreseeability of the person claimed to be liable.[197] Thus, neither the law of place of injury nor the law of the place of the habitual residence of the victim may be selected if the manufacturer establishes that he could not reasonably have foreseen that his defective product would be available in those places through commercial channels. The foreseeability element is very important since it potentially can render the whole operation of choice of law available in this Convention ineffective. What is foreseeable and what is not foreseeable in view of the rapid transportation and the high mobility of products and goods in international trade is a rather obscure concept which will be extremely difficult to decide. The Convention is ambiguous about the test of foreseeability and it seems that a subjective test has been adopted. Article 7 of the Convention which contains this restrictive condition on the operation of the choice of applicable law provisions provides the following:

> Neither the law of the State of the place of injury nor the law of the State of the habitual residence of the person directly suffering damages shall be applicable by virtue of Articles 4, 5 and 6 if the

> person claimed to be liable establishes that he could not reasonably have foreseen that the product or his own products of the same type would be made available in that State through commercial channels.[198]

The scope of this Convention is limited to non-contractual liability cases. Article 1 of the Convention provides that the convention is inapplicable to actions against the direct transfer of the products. Thus, products liability litigation of fundamentally contractual nature is excluded in this respect. In so doing the Convention has not only failed to provide a comprehensive choice of law solutions for both contractual and non-contractual litigation but raises the question of characterization, a potential area of conflict.

In the final analysis the Convention provides a rather "mechanical" scheme for choice of law in products liability cases. This approach does not leave very much room for judicial maneuvering in situations where substantial justice is not achieved under the operation of its scheme of rules. Nevertheless, the Convention may bring the needed consistency and uniformity to the complex questions of conflict of laws in the field of products liability. Professor Reese, of the Parker School of Foreign and Comparative Law at Columbia University, makes the following remarks about the impact of the Convention on this field:

> One obvious advantage of the Convention is that it would afford predictability and uniformity of result as well as ease in the selection of the state of applicable law. These are important values. Predictability with respect to the law to be applied would facilitate the task of lawyers in settling a products liability case and would be of assistance in the setting of insurance rates. This value would also aid suppliers of products liability in planning

> their transactions and in reaching a decision on whether to make their goods available for sale in a given country. Ease in the selection of the applicable law is also a factor that should not be disregarded. The courts have many things to do, of which selection of the state of the applicable law is hardly the most important. Accordingly, clear and precise rules that would assist in the performance of this latter task have distinct advantages.[199]

The Convention has been ratified and thus entered into force in several European countries such as Norway, Yugoslavia and France.[200] However, the United States remained inactive although ratification of the Convention has been recommended by the Committee on International Unification of Private Law of the American Bar Association.[201]

(c) The 1955 Hague Convention on the Law Applicable to International Sale of Moveable Corporeal Objects

Choice of law provided by this Convention makes reference first to the domestic law of the state designated by the parties.[202] Where no such designation is made, however, the Convention refers choice of law to the law of the state of the habitual residence of the vendor at the time he received the purchase order. If the vendor however has an agent or an establishment in the purchaser's jurisdiction and the order has been placed through that agency or establishment, the sale will be governed by the law of that jurisdiction.[203]

This Convention applies to international sales of corporeal objects. The scope of the Convention covers "sale of corporeal moveable objects, when such sale is of an international nature, and includes documentary sale and contracts for the delivery of corporeal moveable objects to

be manufactured or produced, when the party who has agreed to deliver must supply the raw materials necessary for manufacture or production."[204] The Convention does not apply to the sale of aircraft.[205] However, it seems possible that the provisions of this Convention may apply to contractual liabilities involving aircraft parts, its purchase or manufacturing orders.

D. Conclusion

International litigation of aviation product liability may encounter diverse and complex conflict of laws problems in both areas, jurisdiction and choice of law. The existing rules and solutions available under the national law may produce inconsistent and unjust results.

The aircraft is a type of product, although built by one prime manufacturer, a large number of other manufacturers and contractors usually located in different countries provide parts and components for it. The airplane flies over different jurisdictions and has contacts with many countries in a relatively short time. A crash of a widebody jet airliner during an international flight can potentially create complex litigation in regard to its volume and its parties. The present divergence in conflict of laws contributes to the complication of litigation as well as to prolongation of the settlements of claims. International "forum shopping" and "defendant shopping" in the meanwhile, is only a natural consequence.

Uniform solutions for conflict of laws in international products liability have already evolved. These uniform solutions deal with questions related to product liability claims in general yet none of these deal specifically with those of aviation product liability claims. Even if the presently emerged uniform rules are adopted by the industrialized countries it is doubtful whether these rules can alleviate the complex problems in aviation products liability. The situation, therefore, demands that an international action be made specifically to harmonize conflict of laws in this field.

FOOTNOTES
(Chapter Six)

[1]See generally: Comment, Air Crash Litigation: Disaster in the Courts (1975) 7 S.W.U.L. Rev. 661. Tyding, Air Crash Litigation: A Judicial Problem and a Congressional Solution, (1969) 18 Am. U.L. Rev. 299, Note, the Applicability of Federal Common Law to Aviation Tort Litigation, (1975) 63 Geo. L. Rev. 1083, Douglas, Air Disaster Litigation Without Diversity, (1980) 45 J. Air L. Comm. 411 1980.

[2]For more about the DC-10 Paris crash of 1974 and the litigation which followed see 399 F. Supp. 732 (C. D. Cal. 1975).

[3]See: Collision Course, Newsweek April 11, 1977 at 48, also see: What is He Doing, He Will Kill Us All, Time, April 11, 1977 at 22.

[4]See the Washington Post May 27, 1979 at A20.

[5]For assessment of air travel safety and a list of all crashes which occurred during 1979. For example see: Airline Safety First Assessment of 1979 in FLIGHT International, 26 January 1980.

[6]See generally references cited in supra, note 1.

[7]Ibid.

[8]For a comprehensive comparative treatment of this subject see: H. Duintjer Tebbens, International Product Liability (1979) at 165. See also Note, International Products Liability Litigation: Choosing the Applicable Law (1978) 12 International Lawyer 845, see also: W. Park, International Products Liability (1978) 14 Trial 24.

[9]See generally references cited in Supra, note 8.

[10]See generally references cited in Supra, note 1.

[11]Ibid.

[12]The law of Products Liability in the United States is more advanced than any other country. An overview of the law in that country was discussed in the third chapter of this study. For a comprehensive comparative analysis of this field of law in the U.S. and other countries see Duintjer Tebbens, Supra, note 8 at 14.

[13]For a review of jurisdiction and venue in the United States in cases involving foreign elements (in aviation litigation) see L. S. Kreindler, Aviation Accident Law (1978) Chapter 16; see also R. J. Weintraub, Commentary on the Conflict of Laws (1980) Chapter 4.

[14]Ibid.

[15]For an assessment of these decisions and statutes see Kimble and Lesher, Products Liability (1979) at 333.

[16]326 U.S. 310, 66 S. Ct. 154, 90 L.Ed 95, 161 A.L.R. 1057 (1945).

[17]326 U.S. 310, 316.

[18]355 U.S. 220, 78 S. Ct. 199, 2 L.Ed.2d 223 (1955).

[19]357 U.S. 235, 78 S. Ct. 1228, 2 L.Ed.2d 1283 (1958).

[20]See 63 Am Jur 2d - Products Liability Sec. 215 (1975).

[21]The Uniform Interstate and International Procedure Act was basically fashioned after the Statute of Wisconsin (Wis. Ann. Sec. 262-05(Suppl. 1972)) and is adopted by the following states: Alaska, Arkansas, the District of Columbia, Florida, Georgia, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Nebraska, New York, Ohio, Virginia, Wisconsin and Wyoming.

[22]See Kimble and Lesher, Supra, note 15 at 340-43.

[23]See Duintjer Tebbens, Supra, note 8 at 196-197, see also Kimble and Lesher, Supra, note 15 at 341.

[24]See Duintjer Tebbens, Supra, note 8 at 196.

[25]For a discussion on these two bases of conferring jurisdiction and its application in products liability cases see 63 Am Jur 2d - Products Liability, Sections 216 and 217 (1975), see also Kimble and Lesher, Supra, note 15 at 342-346, see also Weintraub, Supra, note 13 at 141.

[26]Kimble and Lesher, Supra, note 15 at 350.

[27]See generally Kimble and Lesher, Supra, note 15 at 343-350.

[28]211 S.E.2d 344 (1975).

[29]468 F. Supp. 521 (D. Ariz. 1979).

[30]See for example: Taca International Airlines v. Rolls-Royce of England. 204 N.E. 2d 329 1965; see also Boryk v. DeHavilland Aircraft, Co., 341 F. 2d 666 (1965).

[31]For a comprehensive treatment of this doctrine and its application to products liability in aviation see Kreindler, Supra, note 13 at 16.08. See also Kimble and Lesher, Supra, note 15 at 348.

[32]For the general application of this doctrine in general see Weintraub, Supra,note 13 at 205-213.

[33]Anno., 59 A.L.R. 3d 138.

[34]Ibid.

[35]28 U.S.C.A. 1404(a).

[36]Weintraub, Supra, note 13 at 208.

[37]Ibid., at 210.

[38]Weintraub, Supra, note 13 at 206.

[39]Kimble and Lesher, Supra, note 15 at 348.

[40]Ibid., at 348.

[41]Dahl et al. v. United Technologies Corporation, 6/8/79. No. 78-363. The case is reported in Product Safety and Liability Reporter Vol. 7 number 27 page 532-33 (1979).

[42]15 Avi. 17,061 (U.S. District Court S.D. N.Y. March 26, 1980).

[43]Supra, note 41 at 533.

[44]15 Avi. 18,061 (U.S. District Court S.D. N.Y. March 26, 1980).

[45]15 Avi. Cas. 17,486.

[46]Ibid.

[47]15 Avi. 18,112.

[48]28 U.S.C. Sec. 1407 (1970).

[49]28 U.S.C. Sec. 1407(a) (1975).

[50]For more discussion about this Legislation see Cahn, A Look at the Judicial Panel on Multidistrict Litigation, (1976) F.R.D. 211; see also Note, The Judicial Panel and the Conduct of the Multidistrict Litigation (1974) Har. L. Rev. 1001.

[51]See generally Martin, Multidistrict Litigation - A Panacea or a Blight? (1975) 10 Forum 853, 864.

[52]In re Paris Air Crash, 399 F. Supp. 732 (C.D. Cal. 1975).

[53]U.S. Const. Art. III, Sec. 2.

[54]The Judiciary Act of 1789, 1 Stat. 11.

[55]46 U.S.C. Sec. 761-768.

[56]Death on the High Seas Act, 46 U.S.C. Sec. 761.

[57]For a discussion of the subject of admirality jurisdiction in aviation accident see, Note: Admirality Tort Jurisdiction and Aircraft Accident Cases: Hops, Skips and Jumps into Admirality (1972) 38 J. Air L. 53; See also Comment, Admirality Tort Jurisdiction - Airplane Crashes into Navigable Waters Within State Territorial Limits, (1972) 7 Univ. Richmond L. Rev. 538.

[58]409 U.S. 249 (1972).

[59]Ibid., at 271.

[60]204 F. Supp. 929 (1962).

[61]204 F. Supp. 856 (S.D. N.Y. 1960).

[62]301 F. Supp. 513 (S.D. N.Y. 1962).

[63]See generally Showcross & Beaumont, Air Law 4th Ed. (1977) at 60.

[64]RSC Order 11, r. 1(1)(h).

[65]See generally Miller and Lovell, Products Liability (1977) at 345-51.

[66]Ibid.

[67](1944) 1KB 432.

[68](1966) 1 W.L.R. 793.

[69](1971) A.C. 458.

[70]See generally C. Brown, Jurisdiction and Choice of Law in Torts (1977) 8 Victoria Univ. Willington L. Rev. 267.

[71]For a detailed discussion of jurisdiction of the Canadian Courts in cases involving product liability see S. M. Waddams, Products Liability 2nd Ed. (1980) 189; see also Duintjer Tebbens, Supra, note 8 at 286.

[72]Abbot-Smith v. Governors of University of Toronto, (1964) 45 DLR (2d) 672 (Nova Scotia).

[73](1975) SCR 393, (1973) 43 DLR (3rd) 239.

[74](1973) 43 DLR (3rd) 250-251.

[75]Ibid.

[76]Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters, Brussels, 27 September 1968. The Convention became effective as of February first 1978. The Convention is translated into English in 2 Common Market Rep. (CCH) 6003. For analysis of the Convention see: Bartlett, Full FAith and Credit Commes to the Common Market: An Analysis of the Provisions of the Convention on Jurisdiction and Enforcement of Judgments in Civil and Commercial Matters, 24 Int'l & Comp. L. Q. 44 (1975).

[77]See Duintjer Tebbens, Supra, note 8 at 292.

[78]For critical comments of the Convention and its impact on non-EEC defendants see: Nadelmann, The Common Market Judgments Convention and a Hague Conference Recommendation: What Steps Next? (1969) 82 Harv. L. Rev. 1282, see also, Nadelmann, Jurisdictionally Improper Fora in Treaties on Recognition of Judgments: The Common Market Draft (1967) 67 Colum. L. Rev. 995 (1967).

[79]See Duintjer Tebbens, Supra, note 8 at 292-98.

[80]Article 2 of the Convention on Jurisdiction and Enforcement of Judgments in Civil and Commercial Matters 27 September 1968.

[81]Article 5 of the Convention on Jurisdiction and Enforcement of Judgments in Civil and Commercial Matters 27 September 1968.

[82]Article 52 of the Convention on Jurisdiction and Enforcement of Judgments in Civil and Commercial Matters 27 September 1968.

[83]Protocol Concerning the Interpretation by the Court of Justice of the Convention on Jurisdiction and the Enforcement of Judgments, June 3, 1971. This Protocol came into effect in December 1975.

[84]Handelskwekerij G. J. Bier B. v. V. Mines de Potasse de Alsace, S.A. (1976) E. Comm. Ct. J. Rep. 1753. See Duintjer Tebbens, Supra, note 8 at 293-95.

[85]Ibid.

[86]Article 4 of the Convention on Jurisidction and Enforcement of Judgments in Civil and Commercial Matters, 27 September 1968.

[87]See Nadelmann, Supra, note 78.

[88]Ibid.

[89]See generally Kreindler, Supra, note 13, Chapter two on Conflict of Laws.

[90]Ibid., at 2.01.

[91]Ibid., at 2.01.

[92]See generally Kreindler, Supra, note 13, Chapter two on Conflict of Laws.

[93]Duintjer Tebbens, Supra, note at 219.

[94]For a comprehensive treatment of the doctrine of lex loci delicti and its application in tortious action as the basic test see C. G. C. Morse, Torts in Private International Law (1978) at 23-36.

[95]Ibid.

[96]For Conflict of Laws in contractual obligations see generally J. G. Castel, Canadian Conflict of Laws, (1977) Vol-II at 513.

[97]Kimble and Lesher, Supra, note 15 at 353.

[98]See for example: Comment: Products Liability and Choice of Law (1965) 78 Harv. L. R. 1452; Comment: Choice of Law: Statutes of Limitation in the Multistate Products Liability Case (1974) 48 Tulane L. Rev. 1138; D. F. Cavers, The Proper Law of Products Liability, (1977) 26 Int'l and Comp. Q. 703; see also the Comprehensive Analysis for Choice of law in Products Liability Litigation provided by Duintjer Tebbens, Supra, note 8 starting at 164 and also see Kreindler, Supra, note 13 Chapter two on Conflict of Laws.

[99]See notes cited in 98 Ibid.

[100]See Comment: Choice of Law: Statutes of Limitation in the Multistate Products Liability Case (1974) 48 Tulane L. Rev. 1138, 1142.

[101]Restatement of Conflict of Laws (Second) Sec. 378.

[102]S. Wood, Aircrash Litigation. Disaster in the Courts 7 Southwestern Univ. L. Rev. 669.

[103]Ibid.

[104]9 N.Y. 2d 34, 211 N.Y.S. 2d 133, 172 N.E. 2d 526 (1961).

[105]12 N.Y. 2d 473, 240 N.Y. S.2d 743, 191 N.E. 2d 279 (1963).

[106]The Restatement of Conflict of Laws (Second) Sec. 145.

[107]See generally Currie, Conflict, Crisis and Confusion in New York, (1963) Duke L. J. 1, 39-40, see also Ehrenzweig, Conflict of Laws 2d. Ed, (1962) 351, UGU. See also Leflar, American Conflict of Laws 3rd Ed. (1977) at 278.

[108]For more about this approach in the American Jurisprudence see Leflar at 185, 275.

[109]See Kimble & Lesher, Supra, note 15 at 363.

[110]Ibid., at 364.

[111]Uniform Commercial Code Sec. 1-105.

[112]Restatement of Conflict of Laws (Second) Sec. 188.

[113]Kimble & Lesher, Supra, note 15 at 363.

[114]291 F.2d 310 (1961).

[115]258 F. 2d 602 (1958).

[116]401 F. 2d 593 (1968).

[117]455 F. 2d 137 (1972).

[118]Ibid., at 140.

[119]317 F. Supp. 1013 (1970).

[120]Ibid.

[121]295 F. Supp. 1170 (1969).

[122]467 F. Supp. 983 (1979).

[123]Ibid., at 986-87.

[124]418 F. Supp. 829 (1975).

[125]335 F. Supp. 1104 (S.D. N.Y. 1970).

[126]12 N.Y. 2d 473.

[127]In re Paris Crash of March 3, 1974, 399 F. Supp. 732 (1975).

[128]Ibid.

[129]Ibid.

[130]Ibid., at 739.

[131]Ibid., at 746.

[132]Ibid.

[133]Ibid.

[134]See for example Duintjer Tebbens, Supra, note 8 at 270-73; see also Note: Choice of Law - Wrongful Death - Governmental Interest Analysis Determines Law Applicable to Measure of Damages in Claims Arising from Foreign Air Crash (1975) 9 Vand. J. Int'l Law 641.

[135]Kimble & Lesher, Supra, note 15 at 358.

[136]Ibid., at 558-360.

[137]In the case of OKeefe v. Boeing Company, the Court based choice of law on the most significant relationship. (355 F. Supp. 1104 (1971)).

[138]295 F. Supp.1170 (D.C. Ill. 1969).

[139]439 F. 2d.1150 (5th Cir. 1971).

[140]Ibid.

[141]295 F. Supp. 1170 (D.C. Ill. 1969).

[142]Ibid.

[143]332 F. 2d 73 (1964).

[144]Ibid., at 76-77.

[145]326 F. Supp. 709 (1971).

[146]Ibid., at 714.

[147]See Morse, Supra, note 84 at 278, see also the comprehensive treatment of this subject provided by Duintjer Tebbens, Supra, note 8 at 219, 288.

[148]Morse, Supra, note 84 at 278.

[149](1870) L.R. 6 Q.B.1.

[150]Ibid., at 28-29.

[151]See W. W. Park, International Products Liability (1978) 14 Trial at 25.

[152](1897) 2 Q.B.231.

[153](1971) A.C. 356.

[154]Dicey & Morris, The Conflict of Laws 9th Ed. (1973) at 938.

[155](1870) L.R. 6 Q.B. 1.

[156](1897) 2 Q.B. 231.

[157](1971) A.C. 356.

[158]See generally Morse, Supra, note 84 at 299-305.

[159]Ibid.

[160](1970) 75 W.W.R. 500.

[161]Ibid.

[162]Castel, (in Supra, note 86 at 642) suggests that the Supreme Court of Canada may follow the House of Lords in the Chaplin decision.

[163]This text is cited in Castel, Supra, note 86 at 643-644. It is also cited by Morse, Supra, note 84 at 344.

[164]Cited by Castel, Supra, note 86 at 647.

[165]Ibid., at 648.

[166]For a detailed discussion of the lex loci delicti in the early practice of Continental Europe and its development see generally Morse, Supra, note 84 at 34-36 and 305-310.

[167]Italian Civil Code of 1942 Art. 25.

[168]German Civil Code (E.G.B.G.B.) Article 12.

[169]Cass. Civ. 25.5. 1948.

[170]See Morse, Supra, note 84 at 307-8.

[171]Article 31(1) of the Polish Law on Private International Law of 1965 (the text is cited by Morse, Supra, at 308).

[172]Conflict of Laws Statutes of the German Democratic Republic of 1975 Article 17(1). (Cited by Morse, Ibid, at 308).

[173]The Portugese Code of 1966 Article 45(1) cited by Morse Supra, note 84 at 308.

[174]Ibid.

[175]For a detailed treatment of each of these considerations and techniques to limit the application of the lex loci delicti or avoid it see Morse, Supra, note 84 at 85-100.

[176]Ibid., note 84 at 306.

[177]See Duintjer Tebbens, Supra, note 8 at 299-301.

[178]Ibid., at 301.

[179]Ibid., at 303.

[180]Trib Civ Versailles 12 March 1957 (1957) Rev-Frdraer 276 (Veuve de Franceschi C. Hiller Helicopters).

[181]See for a background and the text of this Convention see K. H. Nadelman, The EEC Draft of a Convention On the Law Applicable to Contractual and Non-Contractual Obligations. 21 Amer. J. of Comp. L. 584; for analysis of this Convention see D. Cavers, (1975) The Common Market's Draft Conflicts Convention On Obligations: Some Protective Aspects, 48 South Cal. L. Rev. 603, see also K. H. Nadelman, Impressionism and Unification of the Law: The EEC Draft Convention on the Law Applicable to Contractual and Non-Contractual Obligations (1976) 24 Amer. J. Comp. L.1.

[182]See Morse, Supra, note 84 at 347.

[183]The EEC Draft Convention - Article 1.

[184]The EEC Draft Convention - Article 10(1).

[185]The EEC Draft Convention - Article 10(2).

[186]Ibid.

[187]The EEC Draft Convention - Article 2 and 3.

[188]The EEC Draft Convention - Article 4(1).

[189]The EEC Draft Convention - Article 4(2).

[190]The Restatement of Conflict of Laws (Second) Sec. 145.

[191]Ibid.

[192]For analysis and background of this Convention see: W. L. M. Reese, Products Liability and Choice of Law: The United States Proposal to the Hague Conference (1972) 25 Vand. L. Rev. 29, see also W. L. M. Reese, Further Comments on the Hague Convention On the Law Applicable to Products Liability (1978) 8 Georgia J. Int'l and Comp. L. 311, see also W. L. M. Reese, The Hague Convention in the Law Applicable to Products Liability (1974) 8 Int'l L. 606.

[193]The Hague Convention on the Law Applicable to Products Liability 1972 - Article 4 and 5.

[194]The Hague Convention on the Law Applicable to Products Liability 1972 - Article 4.

[195]The Hague Convention on the Law Applicable to Products Liability 1972 - Article 5.

[196]The Hague Convention on the Law Applicable to Products Liability 1972 - Article 6.

[197]The Hague Convention on the Law Applicable to Products Liability 1972 - Article 7.

[198]The Hague Convention on the Law Applicable to Products Liability 1972 - Article 7.

[199]W. L. M. Reese, Further Comments on the Hague Convention on the Law Applicable to Products Liability (1978) 8 Georgia J. Int'l and Comp. L. 311, 313-14.

[200]Duintjer Tebbens, Supra, note 8 at 334.

[201]Reese, Supra, note 191 at 313.

[202]The 1955 Hague Convention On the Law Applicable to International Sale of Moveable Corporeal Objects (Recueil des Convention de la Haye (1970), III, p. 12). Art. 2.

[203]Ibid., Article 3.

[204]Castel, Supra, note 96 at 579.

[205]The 1955 Hague Convention, Supra, note 194, Article 1.

CHAPTER SEVEN

CHARACTERISTICS OF THE AIRCRAFT MANUFACTURERS PRESENT LIABILITY SYSTEM AND THE RESULTING LITIGATION

A. Manufacturers Open-Ended Liability Versus Airlines Limited Liability

The plaintiff's bar in its search for solvent defendants in aviation litigation has in the last few decades focused its attention on aircraft manufacturers.[1] Such an endeavor has not only been made to avoid the existing fixed liability system of the airlines but also encouraged the development and advancement of products liability law. This last element has added perhaps the most important dimension to the present field of aviation litigation.

Review of the trends of aviation litigation during the last three decades indicates that claims against aircraft manufacturers has increased dramatically.[2] In almost any significant accident aircraft manufacturers are brought into the litigation scene as a defendant.[3]

While the Warsaw Convention of 1929, and all its sequels have provided a fixed liability system to airlines since the initial stages of international air service,[4] aircraft manufacturers liability remained open-ended. When an aircraft crash occurs plaintiff's attorneys seek the

highest damages for the victims from any party who may be connected with that event whether it is an airline, a manufacturer or air traffic control or others. It is only natural that in view of carrier's liability limitation and the present state of products liability law and its tactics, the plaintiff's bar look to the manufacturer as a main target. In aviation crashes, on the other hand, the disintegration of the wreckage upon impact into hundreds if not thousands of pieces, makes it often difficult, if not, impossible to pinpoint the exact cause of that disaster.[5] Accordingly it is difficult to separate the responsibilities which arise from either airline operation, maintenance, manufacturing defects or government regulation.[6]

The airplane was still considered something of a novelty when the international community began taking steps to regulate the mushrooming enterprise of international air service.[7] In October 1929, an international conference was convened in Warsaw, Poland. The Conference produced the Convention for the Unification of Certain Rules Relating to International Transportation by Air commonly known as the Warsaw Convention.[8] The principal feature of that Convention was a presumption of liability of the air carrier. This presumption is invoked when, during international carriage by air, a passenger was killed or injured, or baggage, possessions or cargo were lost or destroyed. This presumption of liability is balanced however, by fixing or limiting the air carrier's liability to a certain amount of recovery. The

recovery for personal injury or death to passengers was restricted to 125,000 gold francs which was equivalent to approximately $8,300.00.[9]

Dissatisfaction with this scheme of liability limitation provided by the limits of Warsaw Convention was articulated in many international meetings. Work on its revision began as early as 1938.[10] Since then, several amendments were made to the Convention. The most recent is the four Montreal Protocols of 1975. The following is a brief review of these different amendments.

1. The Warsaw Convention, 1929

The Warsaw Convention of 1929 was designed to provide an international code declaring the rights and liabilities of the parties to international carriage contracts by air. The general purpose of the Convention was to protect the emerging international aviation industry and also to secure uniformity of recovery by passengers whenever accidents occurred.[11] Through this instrumentality "a quid pro quo was established: near certainty of recovery for passenger with limited liability for the air carrier."[12] Thus, the carrier liability was limited to (125,000) francs.[13] This limitation was balanced on the other hand, with a presumption of liability on the part of the carrier when a passenger is killed or injured during an international flight.[14] This scheme is available also for baggage, or cargo when it is lost or destroyed.

2. The Hague Protocol, 1955

The international conference convened by the International Civil Aviation Organization at the Hague in September 1955 discussed the limits of liability provided by the Warsaw Convention of 1929. The Conference subsequently produced the Hague Protocol which doubled the limit per passenger to 250,000 francs and also brought other charges.[15]

3. The Montreal Agreement, 1966

Although the United States signed the Hague Protocol of 1955 on the 28th of June 1956, it has never ratified it. President Eisenhower transmitted this international instrument to the Senate for advice and consent but a growing opposition in the United States to the Warsaw and the Hague Protocol liability limits, however, stopped any positive action in the Congress toward that end.[16] On the contrary, the growing opposition to the Warsaw-Hague liability system and the dissatisfaction with the low passenger limits contained in those instruments led the United States to formally denounce the Warsaw Convention on November 15, 1965. This formal denunciation was given to the Polish Government.[17] In the note of denunciation the United States, however, expressed hope in its continuance in the Convention if liability limits were made in the range of $75,000 to $100,000 per passenger.[18] This situation created by the U.S. denunciation of the Convention and the impact which could occur upon the U.S. departure from the Convention led to intense negotiations in the international aviation community.[19] As a result of that

negotiation an interim plan, the Montreal Agreement,[20] was reached in May 1966. According to this Agreement the airlines whose flights touched the territory of the United States accept higher limits of liability in respect to each passenger. An upper limit of $75,000 inclusive of legal fees and costs or where appropriate $58,000 exclusive of legal fees and costs was fixed. The increase in the limits of liability was coupled with a system of strict liability. The carrier undertakes with respect to any claim arising out of death, wounding or other bodily injury of a passenger, not to avail himself of any defense available under Article 20(1) of the Convention, i.e., the defense that he his servants and agents had taken all necessary steps to avoid the danger.[21] The Montreal Agreement which constitutes a de facto amendment to the Warsaw Convention and the Hague Protocol, although meant to be an interim arrangement, has served effectively since 1966 up to the present. Provisions of this agreements apply where an international air transportation has, either its place of departure, its place of destination, or an agreed stopping place in the United States.[22]

4. The Guatemala City Protocol, 1971

The Guatemala City Protocol of 1971 is another amendment to the Warsaw Convention as amended by the Hague Protocol of 1955.[23] The Protocol provides for an absolute liability on the part of the carrier, but with a limitation of 1,500,000 gold francs per passenger. This amount was approximately $100,000 when this protocol was signed. The

Protocol established limits in the case of delay in the carriage of persons and also prescribed higher limits for the loss or damage to baggage. In addition to these changes, the Protocol provides for a national supplementary compensation system to help claimants under the amended Warsaw Convention in respect of death or injury to passengers.[24]

5. The Four Montreal Protocols, 1975

The four Montreal Protocols were produced in the international conference of air law held in Montreal in September 1975.[25] These protocols brought about substantial changes to the Warsaw Conventions and it's subsequent amendments not in terms of the amounts of limitation but rather in terms of the unit of account. The Convention's unit of account, gold francs, has been replaced by the Special Drawing Right (SDR) of the International Monetary Fund.[26] The remarkable increase in the price of gold and its dramatic market fluctuations which followed the economic troubles of the 1970's has dictated this type of change. The replacement of gold francs to the SDR unit in regard to the Warsaw Convention and each of its subsequent amendments has been made through the following four instruments.

1. Additional Protocol No. 1 to Amend the Warsaw Convention of 1929;
2. Additional Protocol No. 2 to amend the Warsaw Convention of 1929 as Amended by the Hague Protocol of 1955;
3. Additional Protocol No. 3 to Amend the Warsaw

Convention of 1929 as Amended by the Hague Protocol of 1955 and the Guatemala City Protocol of 1971;

4. Montreal Protocol No. 4 to Amend the Warsaw Convention of 1929 as Amended by the Hague Protocol of 1955.

As mentioned earlier the Warsaw Convention and its different subsequent amendments which have been briefed earlier, only limit the liability of the air carriers. Other segments of the aviation industry such as the aircraft manufacturers and the air traffic control are not covered. Therefore, the Warsaw liability system is totally inequitable and inadequate as between airlines and manufacturers. It attempts to seal airlines liability and to leave manufacturers subject to open-end obligations. Where the limits available for airlines is not adequate for the real damages plaintiff's counsel will normally seek recovery from other defendants such as the manufacturers. The question of the adequacy of the proposed limits of liability available for airlines, particularly the 100,000 SDRs available under the Guatemala Protocol as amended by the Montreal Protocols, has come up before the U.S. Senate.[27] On January 14, 1977, President Ford before leaving Office submitted to the United States Senate Montreal Protocols 3 and 4 with a recommendation that the Senate consent to ratification of the Protocols.[28] Ratification of the Montreal Protocols would mean that the United States terminates the Montreal Agreement of 1966 with its current ceiling of $75,000. During a hearing conducted by the U.S. Senate Committee on Foreign Relations on July 26, 1977 on this matter the Civil Aeronautics Board presented data about

levels of recoveries on account of passenger death and serious injury in airplane accidents to support the newly proposed limits.[29] The data covered settlements with respect to aircraft accidents occurring through the years 1964 to 1974. The validity of data, however, was challenged by other studies.[30] The U.S. Senate did not take an action on these Protocols and the whole matter is still pending. Even if the Guatemala Protocol and the Montreal Protocols are ratified, which of course, will bring improvement over the present arrangement, the issue of aircraft manufacturer's liability will not be helped very much. Whenever limits of liability are not sufficient to meet the extent of damages caused by an aircraft accident or crash, recourse and pressure will be directed toward those parties whose liability is not limited. As far as recourse against aircraft manufacturers is concerned, in that respect, the present arsenal of products liability law and its development can, in most instances, provide tools to entertain an action against aircraft manufacturers. Under the Guatemala Protocol liability package the carriers might have recourse against any other tortfeasor. However, the right of the manufacturer or any other, party in the aviation industry for recovery against the airlines is eliminated if such a recovery will result in damages over the 100,000 SDRs per passenger. Having open-ended liability exposure can potentially bring ruinous results to aircraft and components manufacturers in the wake of a catastrophic accident.

B. Forum "Shopping" and the Search for the Big Verdict

In view of the limitation of liability of air carriers which is provided by the Warsaw Carrier and its sequels and the advanced state of the products liability law especially in the United States, the practice of "forum shopping" will probably be encouraged. "Forum shopping" is directed mostly to the United States where the major aircraft manufacturers are located.[31]

By its very nature an airplane with its flight capability can have contacts with many countries in different continents in matters of hours. Litigation which follows an international crash is, therefore, rarely limited to a single country's boundaries. Although plaintiff's counsel is presented with several choices for establishing proceedings under the Warsaw Convention,[32] the advent of products liability law and its present state of litigation in aviation has introduced new means and considerations which influence and enhance the practice of "forum shopping". Considerations such as the availability of an advanced or liberal products liability law, the possibility of trying a case by a jury, the possibility of being awarded a large amount in a jury verdict and the possibility of reaching punitive damages are all attractive incentives for "forum shopping".[33] Other factors may also influence this practice. These include the possibility of application of the principle of strict liability, the availability of a liberal privity requirement,

choice of law rules, rules of pleading and proof, rules of discovery, the availability of the res ipsa loquitur doctrine and statutes of limitation.[34]

In the second chapter of this study which dealt with the status of products liability under the national law of different countries it was pointed out that this field of jurisprudence has developed to varied degrees. The theories, concepts and approaches involved in products liability litigation has developed in certain countries while absent in others.[35] The field of products liability is a young branch of the law which has developed only in the last few decades.

It is a well-established fact that the modern products liability law and its development is the product of the American Courts.[36] And, it is in America that this field of law has evolved and progressed. As to aviation products liability litigation, the overwhelming majority of this type of litigation has taken place before American courts. And, it is the United States courts which have been the target of the international traffic of aviation products liability litigation for claims originated in foreign countries.[37] Attempts of "forum shopping" in aviation products liability directed to jurisdictions in the United States may be attributed to the following reasons:[38]

1. Liberal terms, principles and doctrines of products liability law especially the doctrine of strict liability which well-established in almost all the American jurisdictions.

2. The major aircraft manufacturers who supply the majority of airplane to airlines across the world are located in the United States.
3. Discovery procedures, the heart of any aviation products liability case, through which manufacturers reports, documents and data about the involved defect must be produced, are available and well-established in the United States.
4. The possibility of conducting the aviation products liability trial by jury and the tendency of the American jury to grant comparatively high amounts for damages in its verdicts. These are distinctive features of the American legal system. Even among the different American jurisdictions there are high and low verdict areas. For example California, New York and Florida take the lead in granting high awards.[39]
5. The possibility of not only reaching a high verdict but also receiving punitive damages from the manufacturers.

As long as foreign plaintiffs can reach the American aircraft manufacturers in a jurisdiction in the United States "forum shopping" in aviation products liability litigation will continue unabated. The rules of products liabilities are more favorable to the consumer and to the user in the United States than in any other country in the world.[40] In addition to this, liberal bases for assuming jurisdiction,

such as the long-arm statutes of the different states, help facilitate diversion of foreign aviation products liability claims to United States courts.

C. Aircraft Products Liability Litigation Versus the Promotion of Aviation Safety

The concept of aviation safety is an integral part of the aviation industry. Its promotion is a paramount goal. Does the present system of aviation products liability and its proliferation against the aircraft manufacturers enhance the promotion of aviation safety? Or does that type of litigation have an adverse impact upon aviation safety and its promotion? Arguments have been advanced in both directions.

There is no responsible aircraft manufacturer who will refraim from taking action needed to ensure or improve the safety of his product. However, it is argued, that,

> The threat of punitive proceedings, coupled with a type of judicial hindsight that allows modification action to be publicly condemned as a necessary evidence of some previous deficiency, is bound to be an inhibiting factor in the general are of accident prevention.[41]

Advocates of this position refer to the flow of information of incidents and defects reports passing between companies. Dissemination and assimilation of such information concerning the experience of others is of cardinal importance in the field of safety. Accident prevention is as important as the cure, it is argued.[42]

This argument has perhaps some substance to it since plaintiff's attorney will of course seek any relevant

material or information that may support his products liability claim against the aircraft manufacturer. The courts in the United States, where most of the aviation products liabilities litigation takes place, admit into evidence any information which is "competent", "relevant" and "material" to the case.[43] Thus, information with respect to technological improvements after delivery of an aircraft has, for example, been admissible as proof of a manufacturer's knowledge of the defects.[44] Evidence pertaining to subsequent changes by the manufacturer has also been admissible for the purpose of showing that it would have been feasible and practicable to incorporate the change before the accident occurred.[45]

The other argument; that litigation as such will enhance aviation safety is advocated by the plaintiff's bar. A long time advocate of this position is Mr. Lee S Kreindler. The basic thesis of this argument is that the existence of the tort system by which every individual, company or even the government is held responsible for their fault or negligence has contributed and will contribute to aviation safety.[46] According to this proposition, legal responsibility for ones conduct serves as a disincentive to negligent actions. It is charged that those in the aviation industry who say that the tort system must be eliminated on the grounds that it restricts the flow of information are really motivated by the belief that the litigation is a "nuisance".[47] Taking a deposition for a few months or appearing in the court for a

few weeks can of course be "a terrible inconvenience" for an engineer, it is argued.[48] Mr. Kreindler describes how aviation litigation helps enhance aviation safely as follows:

> The effect of the system is a very sensitive one on the individuals concerned. There is no other forum where the engineer, who made the corner-cutting decision, is confronted, eye to eye with the relevant documents and the critical cross-examiner. While the process is civilized, and even polite, the confrontation with evidence of one's fault is a significant one. There is no way to go through the process and not appreciate the impact that it has on the individuals concerned. Engineers who have been through the process once are not likely to want to go through it, again. In my judgment the tort-litigation system contributes to aviation safety. Passengers have a right to expect that it will be maintained.[49]

Mr. Kreindler challenges the concept that exchange of information is inhibited by fear of litigation by asserting that "you cannot get wider dissemination or circulation of information by restricting information to start with."[50] And that "as soon as you place artificial barriers and limitations on the circulation of information you hurt yourself."[51]

Proving whether aviation products liability litigation enhances or hurts aviation safety cannot be ascertained by absolute facts and figures. In theory one of the underlying policy considerations of products law is to restrain manufacturer and minimize the risk and the severity of injuries resulting from defective products. By producing better quality products safety is of course enhanced. However, it is important for safety that defects be discovered and eliminated, and improvement or necessary modifications be

made. Diverse arguments grounded on both practical as well as theoritical considerations can be advanced as to whether litigation in aviation product liability does infact achieve these elements or not.

FOOTNOTES
(Chapter Seven)

[1]For a comprehensive treatment of litigation involving aircraft manufacturer's liability see L. S. Kreindler, Aviation Accident Law (1972) Vol. 1 Chap. 7. See also a brief treatment of this subject in Shawcross and Beaumont, Air Law 4th Ed. (1977) at 577-582.

[2]See for example W. E. Mahoney, Current Trends in Aviation Product Liability Law (1970) 36 J. Air L. at 514; L. M. Favrot, Manufacturers Liability-Continuing Duty (1966) 32 J. Air L. 105, M. J. Foley & R. E. Hulting, Recent Development in Aviation Law (1979) 45 J. Air L. and Comm. 319, 327; D.M. Haskell, The Aircraft Manufacturer's Liability for Design and Punitive Damages - The Insurance Policy and the Public Policy (1974) 40 J. Air L. at 595.

[3]See G. C. Sterns, The Liability of the Airframe and Component Manufacturer (1978) 44 J. Air L. 367; see also S. M. Speiser, Dynamics of Airline Crash Litigation: What Makes the Cases Move? (1977) 43 J. Air L. 565, 567.

[4]For a comprehensive treatment of Warsaw Convention and its different amendments see Shawcross & Beaumont, Supra, note 1 Chap. 9 at 337-372.

[5]Speiser, Supra, note 3 at 567.

[6]Ibid., at 566.

[7]See Kreindler, Supra note 1 at 11.01(2); see also Shawcross & Beaumont, Supra, note 1 at 338.

[8]The Text of the Warsaw Convention and its different amendments is reproduced in Shawcross & Beaumont, Supra, note 1 Vol. II 16A.

[9]For review of the different provisions of the Convention and its liability framework see Shawcross & Beaumont, Supra, note 1 at 339.

[10]Shawcross & Beaumont, Supra, note 1 at 338.

[11]Ibid., Supra, note 7.

[12]E. Saad & J. R. Benn, The Revised Warsaw Convention and Other Aviation Disasters (1978) 8 Cumberland L. Rev. 765, 767.

[13]Warsaw Convention - Article 22.

[14]Warsaw Convention - Article 21.

[15]For further discussion of this Protocol see Shawcross & Beaumont, Supra, note 1 at 344-345; see also Kreindler, Supra, note 1 at 12A.06.

[16]See Saad & Benn, Supra, note 12 at 767-770.

[17]The text of the notice of denunciation is contained in Press Release No. 268, November 15 1965. 50 Dept. State Bull. 923, 924 (1965).

[18]Ibid.

[19]See Saad & Benn, Supra, note 12 at 771-73.

[20]CAB Agreement 18900 approved by Order No. E-23680 dated May 31, 1966. 31 Fed. Reg. 7302.

[21]The Montreal Agreement see Shawcross.

[22]Ibid.

[23]See ICAO International Conference on Air Law, Guatemala City, ICAO Doc. No. 9040-LC/167 (1971).

[24]See Shawcross & Beaumont, Supra, note 1 at 351, 353. See also Saad and Benn, Supra, note 12 at 782-88.

[25]The minutes and the documents of this Conference are contained in ICAO International Conference On Air Law, ICAO Doc. No. 9154-LC/174-1, 174-2 (1975).

[26]For an analysis of the change brought about by the Montreal Protocols of 1975 see G. F. Fitzgerald, The Warsaw Convention as Amended by the Montreal Conference on International Air Law 1975, (1976) 1 Annals of Air and Space Law 49. See also Shawcross & Beaumont, Supra, note 1 at 358-362. See also R. H. Mankiewicz, A Galaxy of Unified Laws Will Replace the Uniform Regime Created in 1929 in Warsaw or the Death-blow to the Uniform Regime of Liability in International Carriage by Air (1976) 1 Air Law, 157.

[27]See Committee On Foreign Relations United States Senate: Aviation Protocols Hearing July 26, 1977. U.S. Gov. Printing Office, Washington, 1977.

[28]See Message from the President of the United States: Two Related Protocols to the Convention for the Unification of Certain Rules Relating to International Carriage by Air, as Amended. U.S. Gov. Printing Office, Washington, 1977.

[29]See P. B. Schwarakopt, in the hearing in Supra, note 27 at 13.

[30]See E. Saad & J. R. Benn, in the hearing, Supra, note 27 at 67 and also see L. S. Kreindler, in the same hearing at 94.

[31]Cases of aviation products liability originated in Europe in which non-American plaintiffs file an action in American courts against aircraft manufacturers have already been litigated. See for example: In re Paris Air Crash March 3 399 F. Supp. 732 (1975), Dahl et al v. United Technologies, reported in Product Safety and Liability Vol. 7 No. 27 page 532-33 (1979). See also cases cited in Chap. 6 under jurisdiction in U.S.A.

[32]Warsaw Convention Article 28.

[33]See generally L. G. Davidson, Factors Influencing Choice of Forum in Aircraft Disaster Litigation (1971) 37 J. Air L. 309.

[34]Ibid.

[35]See generally F. A. Orban, Products Liability: A Comparative Legal Restatement - Foreign National Law and the EEC Directive (1978) 8 Georgia J. Int'l & Comp. L. 342.

[36]H. Duintjer Tebbens, International Products Liability (1979) at 10.

[37]See cases cited in Supra, note 31.

[38]See generally A. R. Abramson, Where to Sue in Products Liability Cases (1974) 40 J. Air L. & Comm. 369.

[39]Ibid., at 373.

[40]W. L. M. Reese, Further Comments on the Hague Convention On the Law Applicable to Products Liability (1978) 8 Geor. J. Int'l & Comp. L. 311, 314, 1978.

[41]B. Cookson, The English Manufacturer's Point of View in The Air Law Group Symposium on Manufacturers' Liability for Aviation Accidents: The Aeronautical Jour. of the Royal Aeronautical Society Vol. 75, at 705, 706 (1971). See also A. B. Hunter, Aviation Products Liability - A Technical Viewpoint. (Same symposium) at 713, 714. Mr. Hunter also indicated that "fear of litigation can inhibit safety information exchange but the manufacturers nevertheless proceed to do whatever needs to be done" at 714.

[42]Ibid.

[43]2A Corpus Juris Secundum - Aeronautics & Aerospace - 133 - Admissibility of Evidence. at 264 (1972).

[44]Manos v. Transworld Airlines, Inc., 324 F. Supp. 470 (cited in Supra, note 43).

[45]Boeing Airplane Co., v. Brown 291 F.2d 310 (cited by Supra, note 43).

[46]L. S. Kreindler, Our Tort System and Aviation Safety (1968) 34 J. Air L. & Comm. 497, 498.

[47]Ibid., at 501.

[48]Ibid.

[49]L. S. Kreindler, Safety of Flight in Subsonic and Supersonic Air Transport System: Passenger's Expectations in N. M. Matte, International Air Transport: Law Organization and Policies. Proceedings of the Institute of Air and Space Law 25th Anniversary Conference (1970) at 135,139.

[50]Kreindler, Supra, note 46 at 501.

[51]Ibid., at 501-502.

CHAPTER EIGHT

CONCLUSION AND PROPOSAL

A. Concluding Remarks

1. The main concept which has explicitly presented itself throughout this study is that the scope of the initial and continuing liability of aircraft manufacturers has been significantly expanded and broadened. The trend for this expansion has, although to varying degrees, occurred in almost all industrial nations. Beside the duty of conforming to the extensive administrative and regulatory process of the aircraft industry, the common law of product liability and its proliferation in the law of negligence, warranty and strict liability has placed the aircraft manufacturers under a tremendous extent of obligation. This change in the manufacturer's legal status has generally taken place because of a change in social policy regarding consumers or users of products. The growth of modern consumerism and the increased demand for safer products has given impetus for change in legal doctrine and reasoning. The advent of the social concept that manufacturers (and not injured consumer or user) is in a better position to bear the burden of accident injuries by purchasing insurance and passing losses on to others, is the underlying social consideration behind this evolution. In this case, aircraft manufacturers rather

than the injured passenger would bear the consequences of an accident caused by a defective product.

2. On the other hand the rules, concepts and doctrines of products liability law by which aircraft manufacturer's liability is determined, are hazily and obscurely stated. These rules, which have been borrowed or extended from the law of tort or contract, are overlaping, broad, ambiguous and vague. These rules, therefore, leave much room for accomodation, unpredictability and inconsistency. For example, terms and concepts such as "defective", "unsafe", "unreasonably dangerous" and "unfit for normal use" are some of the basic premises of the law of products liability. At present there is no consistent definitive framework of rules and standards within which the extent and nature of aircraft manufacturers liability may be predicted or calculated. Several international solutions to products liability questions in general have been proposed mainly on the European continent. In the United States, however, where the overwhelming majority of aviation products liability litigation takes place, legislative attempts dealing with products liability have either failed or are still pending.

3. Difficult and complex problems of jurisdiction and choice of law conflicts can be created in an aviation accident or crash resulting in products liability litigation. Aircraft components and supplies are produced in some instances in several countries and are shipped to the prime manufacturer in another country. When the final product is assembled it

is distributed throughout the world. Many airplanes fly daily not only over several jurisdictions but also over several continents. In addition to this, an airplane on an international flight, usually carries passengers of different nationalities or domiciles. Aircraft and component manufacturers can thus expect to defend multiple suits in distant areas which perhaps never were contemplated.

4. As the size, passenger capacity and cost of aircraft steadily rises the extent of liability exposure of an aircraft manufacturer for damages under the present system of product liability law can potentially create grave consequences. For instance, a manufacturer of a wide-body aircraft could be involved in multi-million dollar suits not only for death, injury and property damages but also for losses incurred by the airlines upon a government order grounding a certain type of aircraft. This type of dilemma can in fact occur. One should be reminded of the ruinous effect upon the manufacturer had all the DC-10s in operation been grounded indefinitely after the DC-10 crash at O'Hare International Airport in Chicago in May 1979. The extent of liability exposure of aircraft component manufacturers, sub-contractors and suppliers is by no means less important. Each can potentially be involved in aviation litigation with an exposure to the same grave liability consequences.

5. Early in the history of aviation the international community saw the complex problems associated with international air travel. The Warsaw Convention of 1929 provided

a scheme of limited liability in favor of the airlines. The airlines were at that time in their infancy. Since then, the Warsaw Convention of 1929 has been amended by many international agreements and protocols to keep its liability limits up to date with the dictates of modern economic and social reality. As a result of the different amendments a chaotic system of different liability systems are available at present. Each system provides a scheme of limited liability for the carrier and its application depends on rather accidental factors and conditions.[1]

The Warsaw limited liability system coupled with the evolution of products liability law and its proliferation has created a dangerous disequilibrium in the international aviation litigation arena. The aircraft manufacturers are to bear the pressures of financial and economic burdens brought about by this unjust phenomena. This burden is not only costly, but, can be devastating at times. Under this kind of imbalanced arrangement the future aviation products liability litigation promises, if nothing else, to be proliferated and complex. The Warsaw "galaxy" of limited liability systems is neither fair to the traveling public nor equitable to manufacturers and others who may be subject to liability for an accident or a crash occurring in international air carriage. Products liability law and its expansion in the last two decades has added new dimensions and realities to aviation litigation. Under the Warsaw Liability System, "the back door" in aviation litigation is wide open because the

aircraft manufacturers as opposed to the airlines are relatively accessable through the instrumentality of present product liability law. Accordingly, the manufacturer of the aircraft and its component parts have become rapidly favorite targets for any litigation which follows a crash. The supplementary role of the manufacturer and the other segments of the aviation industry in compensating injuries suffered by airline passengers "has thus been transformed into a principal one."[2] The Warsaw Convention limitation protects the interests of the airlines and leaves the other segments of the aviation industry to struggle with the pressures of litigation which may involve huge financial and economic questions. There is a need to a new approach to deal with liability questions which follow an international crash. The present situation created by the Warsaw Convention "piece-meal" amendments has left the private international air law on the question of liability in a state of inconsistency and confusion. The mass of amendments and protocols with different schemes of liability has exhausted this system. One may wonder, in view of all these amendments, protocols, schemes and the accidental factors upon which each scheme operates whether the Warsaw Liability Systems is not, indeed, heading for bankruptcy.

Extablishing a more efficient and equitable solution or regime to deal with the complex question of liability in international aviation is by no means an easy task. Difficulties, however great, should not hamper attempts to reach this goal. The following is a proposed solution.

B. Proposed Course of Action:

A CONVENTION ON LIABILITY AND COMPENSATION FOR PERSONAL INJURY OR DEATH IN INTERNATIONAL AIR TRAVEL

It is important that any future action aimed at solving liability questions resulting from accidents or crashes in civil aviation take into consideration the present complex framework and structure within which the aviation industry operates. Modern civil and commercial aviation is carried out within a closely knit relationship and interdependency among the different segments of the aviation industry. A successful flight is not a product of the airlines alone, rather it is the end result of genuine effort of collective cooperation in which each segment of the aviation industry properly performs its part. These segments include the airline carrier, maintenance establishments, manufacturers of aircraft and component parts, air traffic controllers, weather service authorities, airport departments, government aeronautical authorities and others. A crash or an accident of the present is, more likely, a product of a chain of events in which more than one segment of the aviation industry has played a part.

On the other hand, it is also important that consideration be given to the present characteristics and realities of the modern aviation litigation and its complexities. When an accident or a crash occurs, recourse today is generally made against all the segments of the aviation industry who were involved or associated with that event. In the past recourse

was centered around the airline carrier. Under the present conditions other segments of the aviation industry such as the manufacturer of the ill-fated aircraft no longer occupy a supplementary role in aviation litigation.

These considerations and others suggest that a comprehensive regime or system of liability in which the different segments of the aviation industry are integrated is perhaps the only effective solution. A comprehensive liability regime which would regulate the financial consequences of an air disaster among the involved parties in the industry and provide for immediate, adequate compensation for the victim(s) is deemed appropriate. This comprehensive system can be established and achieved by means of an international convention which would in the future replace the fragmented and confused Warsaw liability system. This suggestion of pursuing an international action for a unified stand on liability questions is not a novel one. Professor Bin Cheng[3] has recently espoused a position concerning this type of action. The questions which impose themselves at this point are: How can a comprehensive liability system be founded? What nature and characteristics would it take? By which means and principles would it operate?

While recognizing at the offset that neither finding that proper legal regime nor the road to achieving it is simple, nevertheless, this study will propose a framework which could constitute grounds for that type of international action. This proposed framework will be supported, justified or compared, whenever possible, to existing and accepted

international precedents, principles or practice. This course of action is to be contained and implemented by the earlier proposed international convention. This convention is delineated in the following sections.

1. Objectives

This proposed convention aims at achieving the following basic objectives:

(a) Providing traveling passengers and their families with a legal framework under which prompt, secure and fair compensation would be obtained in case of death or injury caused by an aviation accident or a crash.

(b) Fair distribution of the total costs of compensations among those segments of the industry who have been involved in a particular accident or crash. (Airlines, manufacturers, airtraffic control....)

(c) Providing the aviation industry with a predictable and calculable regime of liability.

2. Considerations

(a) The present state of air travel service is based on strong relationship and interdependency among the different segments of the aviation industry.

(b) A safe and successful flight is the product and the result of genuine cooperation among the different segments of the aviation industry.

(c) Present day aviation accident or crash is, most likely, a result of a chain of events in which more

than one segment of the industry play a part.

(d) The nature of aviation litigation, its characteristics, trends and participants have substantially changed within the last few decades. This change has dictated that some segments of the aviation industry such as manufacturers and airtraffic control can no longer maintain a supplementary role in compensating injured victims.

3. The Basic Premises

This proposed convention which aims at introducing a comprehensive liability system which would integrate the different segments of aviation industry under a unified liability system, is centered around these four basic premises: First establishing a compensation system and mechanism for victims of international air travel. This compensation system is to replace the present system of litigation with its complications, expenses and uncertainties. Second, establishing an allocation system and mechanism to distribute the costs of compensation resulting from a crash among the different segments of the aviation industry who are involved in that event. Third, establishing a special aviation risk fund from which payments for compensation can be drawn. Fourth, government indemnification for costs beyond certain limits for each accident or crash. These four premises are discussed separately in the following.

(a) The Compensation System:

(1) Precedents

An important precedent that can be drawn upon in introducing a compensation system to the field of aviation is the workmen's compensation system. According to this system the employer is held responsible for injuries to the employee in the course of his employment, regardless of fault. Workmen's compensation is a well-established system in most countries of the world. For example, in each province and territory of Canada there is in force a Workers' or Workmen's Compensation Act. Workmen's compensation is essentially a substitute for tort liability. The provisions of a Workmen's Compensation Act are in lieu of all rights, statutory or otherwise, to which a workman or the member of his family are or may be entitled against the employer of such workman for or by reason of any accident happening to him while in the course of employment. Some jurisdictions went further than the area of employment related accidents and provided schemes of compensation for victims of other types of accidents. Quebec, for example, has enacted the Automobile Accident Act which is a comprehensive scheme that excludes civil actions entirely.[4] Others like New Zealand went even beyond automobile accidents.[5] Waddams points out that this approach is gaining more acceptance in different courtries. He provides the following comment:

> The case for a universal accident compensation scheme is a strong one. It rests on the view that there are more efficient rational and just methods of compensating those injured by accident than

> the present system of tort litigation. Once accident compensation is seen as a desirable social end, it is difficult to see why a distinction should be drawn between the innocent victim of an accident who is fortunate enough to find a defendant amenable to legal liability, and the accident victim who, similarly injured, cannot find anyone or any solvent person to be made liable. Subsidiary arguments are that the present system is time-consuming and expensive, using up the time of courts, lawyers, and expert witnesses, all to an end that could be much more easily and directly achieved by simply paying compensation.[6]

Introducing an accident compensation in lieu of the present tort litigation system in the aviation field will eliminate several problems. As to traveling victims and their families it will secure and assure a prompt and fair compensation. Litigation in aviation is, sometimes, a long process in which victims and their families neither know its outcome nor can afford to wait for it. The contingent fee is another factor which operates to reduce the injured persons recovery when and if it comes at all. As to the industry, this type of compensation system will provide it with a predictable system of liability which is a necessary factor for its efficient operation and growth.

(2) Mechanism of Compensation

According to this proposed solution the process of compensating victims of air crashes is to be carried out by a Compensation Board which is not a judicial body. It is recognized that this approach of delegating such a power to a non-judicial body is difficult to justify. Constitutional law considerations do not, in principle, allow this type of

action. However, there are some important precedents in which resolutions of non-judicial bodies are recognized and enforced. Beside the Workmen's Compensation Boards decisions which operate under the Workmen's Compensation system, discussed earlier, this type of accommodation is made possible under the provisions of the Convention On the Recognition and Enforcement of Foreign Arbitral Awards which entered into force June 7, 1959.[8] Many countries are party to this convention. The list includes those of West Europe, the Soviet Union and Japan. The United States acceded to this Convention in 1970. According to Article 2 of this Convention:

> Each contracting state shall recognize an agreement in writing under which the parties undertake to submit to arbitration all or any differences which have risen or which may rise between them in respect of a defined legal relationship, whether contractual or not, concerning a subject matter capable of settlement by arbitration.[9]

Section 2 of the first Article of this Convention provides, and important provision which is relevant to this discussion.

> The term "arbitral awards" shall include not only awards made by arbitrators appointed for each case but also those made by 'permanent arbitral bodies' to which the parties have submitted.[10]

The proposed Board of Compensation will process, determine and pay out victims claims according to certain principles rules, procedures. These principles rules and procedures are discussed in the subsequent section.

(3) Principles of Compensation

Experience, concepts and/or schemes could be borrowed from the system of Workmen's Compensation. Some basic

principles that could be utilized in this process are pointed out in the following:

a - No Contest to Liability

Once injuries or death occurs in an accident or crash, liability is automatically admitted. This amounts to an absolute liability on the part of the industry. This principle of absolute liability is well-established in the field of aviation. This principle is contained in several international instruments in this field. Examples are: The Rome Convention of 1952; the Montreal Agreement of 1966 and the Guatemala City Protocol of 1971.

b - A Single Claim

Each passenger is entitled to one claim against the industry. Different claims against each segment of the industry will be eliminated.

c - Who Can Claim

Uniform rules should be established as to who in case of injury or in case of death is entitled to file a claim.

d - No limitation on compensation

Compensation is made according to certain standards or rules which could be developed in consideration of certain factors. These considerations may include the standard of living, the age of the victim, present or potential earning, the number of dependents and others. Some schemes for granting a basic limit plus an increase for establishing one or more elements can be proposed.

(b) Costs Allocation System

The second feature of this proposal is the establishment of an allocation system under which the costs of compensation may be fairly distributed among the different segments of the industry. Since most crashes or accidents involve more than one segment of the industry a formula allocating the costs of each accident will be necessary. This allocation can be established on the general principle of comparative negligence. According to this principle each party involved in an accident will pay a portion of the total costs of that accident corresponding with the degree or the extent of his negligence (airline 70%, aircraft manufacturer 30%....)

There are several landmark precedent in aviation litigation where the different segments of the industry have reached a settlement formula to allocate the total costs of a crash. The case of the Turkish Airline DC-10 crash near Paris in 1974 is a good illustrative example. The process of finding or reaching an allocation formula is vested in a special Allocation Board which will be discussed later.

(c) A Special Aviation Risk Fund

Part of this solution is the establishment of a special aviation risk fund. This fund will provide an available financial source upon which immediate and prompt compensation could be made to victims of an air crash or accident. This fund will consist of periodical payments or subscription by the different segment of the aviation industry. Participation

to this plan should be mandatory. Each segment of the aviation industry will build up its own fund within this financial structure.

Several international precedents similar to this arrangement have been in existence in other fields. For example, in the area of marine pollution certain inter-tanker-owner agreements had provided for the establishment and the maintenance of a special fund to compensate casualties upon occurrence of incidents in that field. An illustration of these agreements is the Contract Regarding An Interim Supplement to Tanker Liability for Oil Pollution 1971 (CRISTAL)[11] which came into force in 1978. According to this agreement an initial fund of five million U.S. dollars was established. The shares of each contracting oil company to this fund is assessed according to specific procedures.

(d) Governments Indemnification

An aviation crash or a mid-air collision between two wide-bodied aircraft may involve a large number of victims. The costs of such a risk may be so high that it is beyond the ability of the industry to handle. In this case, government indemnification for liability which rises beyond certain limits for each accident deemed necessary. Government indemnification is available to other industries involved in high risk operations. This type of arrangment is precedented in at least two international conventions. Both conventions deal with accidents in the field of nuclear energy. These

conventions are the Vienna Convention on Civil Liability for Nuclear Damages, 1963[12] and the Brussels Convention on the Liability of Operators of Nuclear Ships, 1962.[13]

4. Institutions and Their Functions

The functions of carrying out this system is to be vested in a structure which consists of three different institutions: A Compensation Board, an Allocation Board and an Aviation Risk Fund Board. Each of these institutions will administer one segment of this system. The Compensation Board processes and determines victim's compensation claims according to specific principle procedures and rules. The Allocation Board consisting mainly of experts or technicians in the field of aviation, such as pilots, engineers and airtraffic controllers, will act as a jury to look into the causes and the background of the accident. This same jury will determine the extent of the negligence of each segment of the industry and the degree of its contribution to the accident. Accordingly, this Board will develop an allocation formula corresponding with the contributory negligence of each party involved. The principle of contributory or comparative negligence upon which this allocation formula is based is at present a well-established and accepted principle in most legal systems. The Aviation Risk Fund Board is basically a financial institution. It will administer the funds, receive subscriptions, channel payments or credits to the compensation boards.

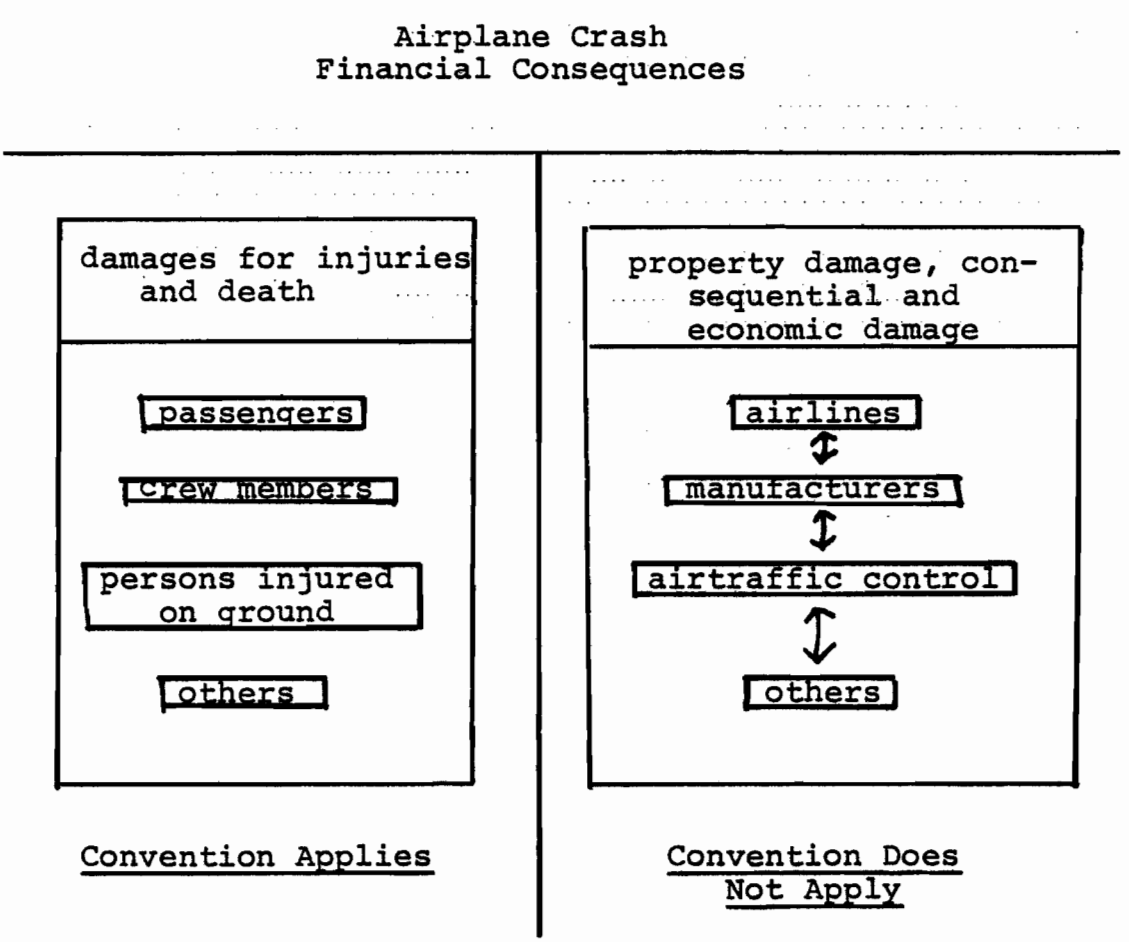
The total operation of these three boards in dispensing the costs of an aviation accident can be summariezed in the

following. Upon occurrance of a crash,victim claims are filed, processed, determined and paid by the Compensation Board. The payments are drawn from the Aviation Risk Fund. During this time the Allocation Board investigates the cause and circumstances of the accident. According to their findings, an allocation formula, in consideration of each party involved, is negotiated and developed. The total cost is distributed proportionately among the involved parties and charged against their accounts. In case of very high cost resulting from an air disaster,the principle of government indemnification, discussed earlier, will be applied to cover expenses beyond the specified limits for each accident involved.

5. Regional Institutions Within an International Organization

This proposed system of compensation is to be operated through the establishment of regional institutions. Each geographical region in the world would have similar institutional units within an international organization. For example, one unit arrangement could be established for North America, another for South America, another for West Europe, etc. Each of these geographical units will operate within the same three institutions: A Compensation Board, an Allocation Board and the Aviation Risk Fund Board. These regional institutions will handle accidents and claims which occur within their geographical region. This compensation system is further explained by the following four charts.

CHART 1: Convention's Scope of Application



Convention applies to injuries or death to persons only thus leaving property and economic damage claims among the different industry segments subject to present litigation systems.

CHART 2: Financial Costs Processed

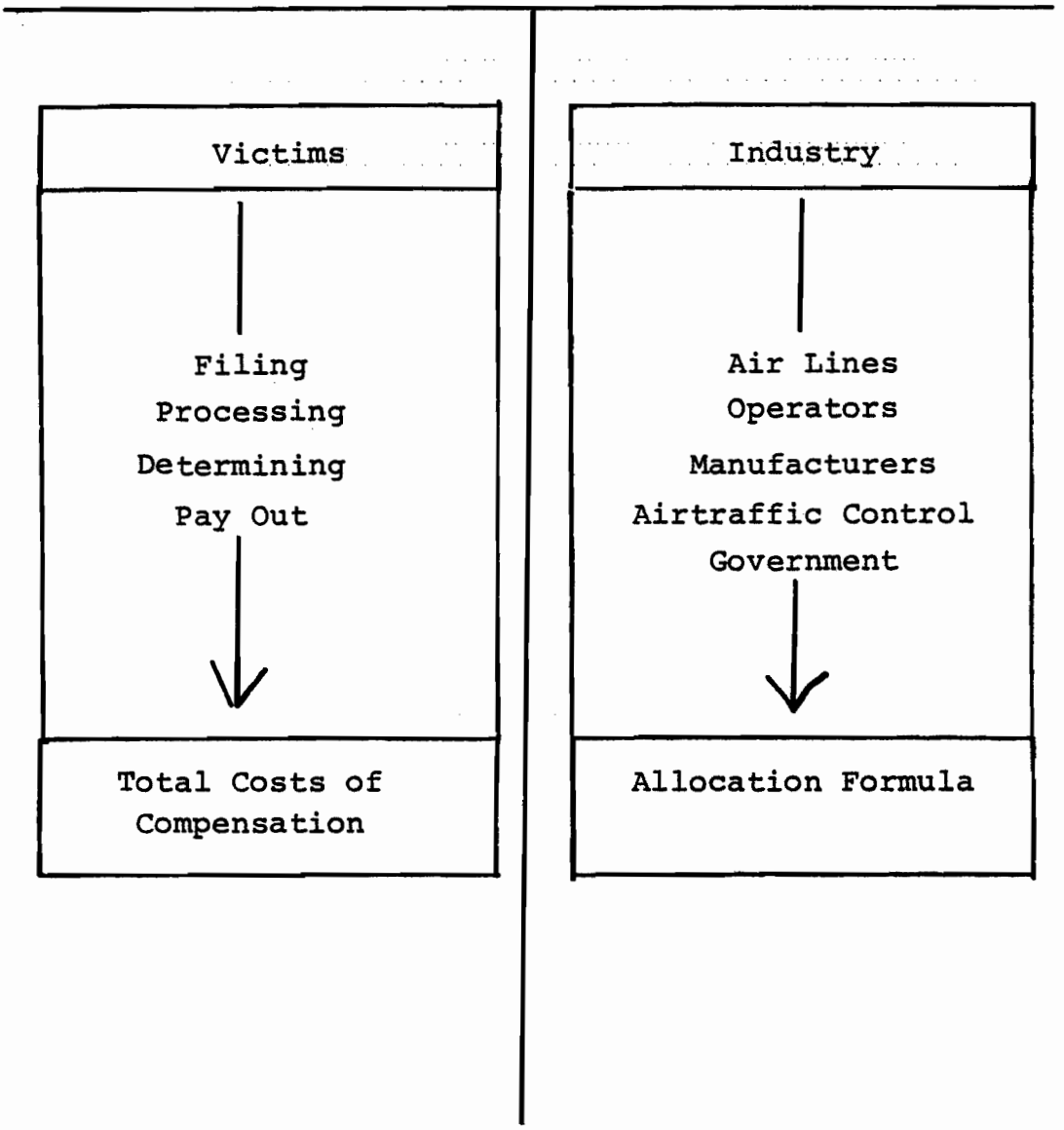


CHART 3 : Liability Distributing

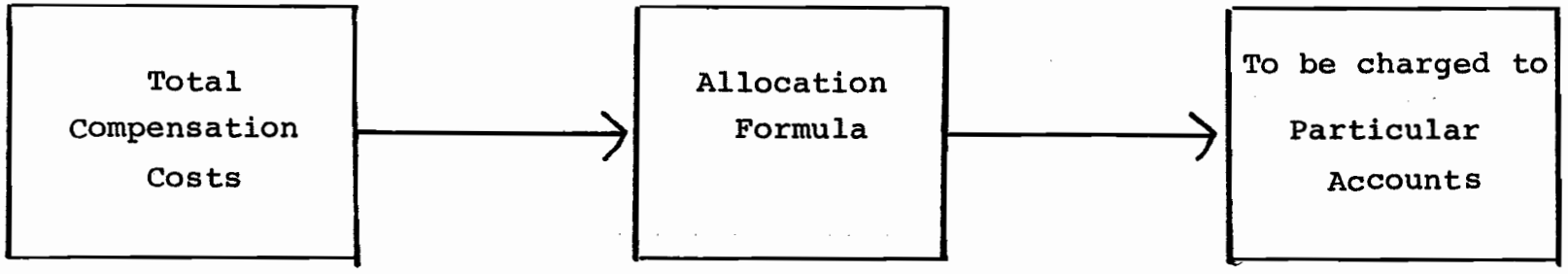
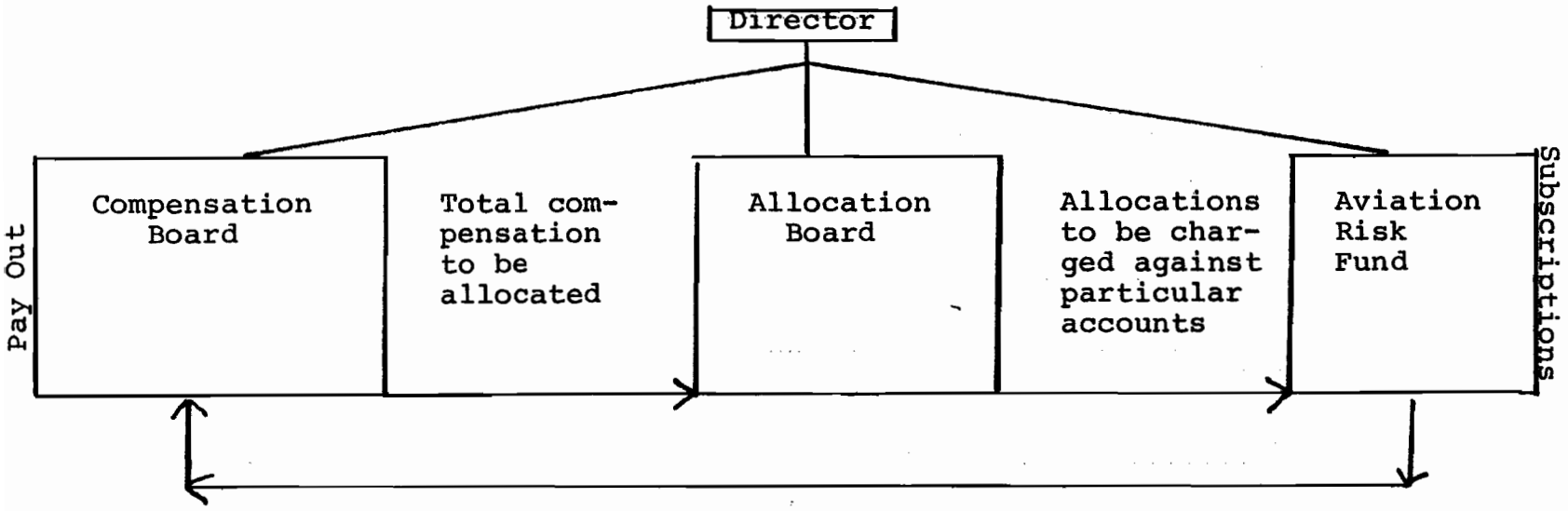


CHART 4 : Sample of A Regional Compensation Unit



Compensation Board will process, determine and pay out victims' claims. This is done according to uniform principles and rules.

Allocation Board will develop a formula for allocating the costs of each accident according to the comparative negligence of each party involved. Airlines 75%, manufacturer 30%...Allocation Board is a jury of highly qualified experts and technicians in aviation. Pilots, engineers....

Each segment of the industry will be required to maintain a special risk account at this fund which is to be used to cover potential compensation cost.

FOOTNOTES
(Chapter Eight)

[1]The following systems and schemes of liability exist at present: The Warsaw Convention 1929 unamended 125,000 gold francs; The Warsaw Convention 1929, amended by Montreal Additional Protocol No. 1, 1975, 8,300 SDR Not in force anywhere; The Warsaw Convention 1929, amended by the Hague Protocol 1955, 250,000 Convention francs, the most common regime; Warsaw/Hague further amended by Montreal Additional Protocol No. 2, 1975, 16,600 SDR, not in force anywhere; Warsaw/Hague further amended by the Guatemala Protocol, 1971 principally in respect of the carriage of passengers and baggage, 1,500,000 Convention francs, not in force anywhere; Warsaw/Hague/Guatemala further amended by Montreal Additional Protocol No. 3, 1975, 100,000 SDR, not in force anywhere; Warsaw/Hague further amended by Montreal Additional Protocol No. 4, 1975 in respect of the carriage of cargo; and The Montreal Agreement of 1966 a de facto Amendment to the Warsaw Convention according to which airline liability to passengers on flights to and from the U.S. is limited to $75,000. For an overview of the application of the Warsaw liability system see D. I. Sheinfeld, From Warsaw To Tenerife: A Chronological Analysis of the Liability Limitations Imposed Pursuant to the Warsaw Convention, (1980) 45 J. Air L. 653.

[2]Bin Cheng, Fifty Years of the Warsaw Convention: Where Do We Go From Here? 28 Zeitschrift fur Luft-Und Weltraumrecht (1979) 373,377.

[3]Ibid.

[4]See S. M. Waddams, Products Liability (1980) at 267.

[5]Automobile Insurance Act, 1977 (Que.), C.68, S.4 (this act has been cited by Waddams, Ibid., at 267.

[6]See Waddams, Supra, note 4 at 268.

[7]Ibid., at 268.

[8]Text and analysis to this Convention is provided in 8 American J. Comp. L. (1959) 283, 291. Text also produced in 7 Int'l Leg. Materials at 1046.

[9]Convention On the Recognition and Enforcement of Foreign Arbitral Awards, Art. 2.

[10]Convention on the Recognition and Enforcement of Foreign Arbitral Awards, Art. 1, Sec. 2.

[11]10 Int'l Leg. Materials (1971)

[12]For a text see I.A.E.A. Legal Series No. 12/46 May 20, 1963. For an informative analysis of this Convention and other conventions in the nuclear energy industry see S. Cigoj, International Regulation of Civil Liability for Nuclear Risk, (1965) 14 Int'l & Comp. L. Quarterly 809.

[13]For text see Developments in the Law of the Sea, 1958-1964 (British Institute of International and Comparative Law, Special Publication No. 6 (1965).

APPENDIX A*

DRAFT UNIFORM PRODUCT LIABILITY LAW**

*Reproduced from 28 Drake Law Rev. (1979).

**The Draft Uniform Liability Law appears in its entirety (both statutory text and the analysis following) in Fed. Reg. 2996-3019 (1979).

OUTLINE: DRAFT UNIFORM PRODUCT LIABILITY ACT

Preamble.
Sec. 100. Short Title.
Sec. 101 Findings.
Sec. 102. Definitions.
Product seller.
Product liability claim.
Claimant.
Harm.
Manufacturer.
Reasonably anticipated conduct.
Clear and convincing evidence.
Sec. 103. Scope of this Act.
Sec. 104. Basic Standards of Responsibility.
(A) Product Defective in Construction.
(B) Product Defective in Design.
(C) Failure to Warn.
Sec. 105. Unavoidable Defects.
Sec. 106. Relevance of the State of the Art.
Sec. 107. Relevance of Complaince With Legislative or Administrative Standards.
Sec. 108. Notice of Possible Claim Required.
Sec. 109. Length of Time Product Sellers are Subject to Liability for Injuries or Damage Caused by Their Products.
(A) Useful Safe Life.
(B) Statutes of Repose.
(1) Workplace Injuries.
(2) Non-workplace Injuries.
(C) Statute of Limitations.
Sec. 110. Relevance of Third-Party Alteration or Modification of a Product.
Sec. 111. Relevance of Conduct on the Part of Product Users.
(A) General Rule.
(B) Apportionment of Damages.
(C) Claimant Conduct.
(1) Misuse of Product.
(2) Failure to Inspect for Defect.
(3) Utilizing a Product With a Known Defect.
Sec. 112. Multiple Defendants.
(a) Contribution and Indemnity.
(b) Effect of Release of the Person Jointly Responsible.
Sec. 113. The Relationship Between Product Liability and Worker Compensation.
Sec. 114. The Individual Responsibility of Product Sellers Other Than Manufacturers.
Sec. 115. Sanctions Against the Bringing of Frivolous Claims and Defenses.

Sec. 116. Arbitration.
(a) Applicability.
(b) Rules Governing.
(c) Arbitrators.
(d) Arbitrators' Powers.
(e) Commencement.
(f) Evidence.
(g) Transcript of Proceeding.
(h) Arbitration Award and Judgment.
(i) Trial *de Novo*.
Sec. 117. Expert Testimony.
(a) Appointment of Experts.
(b) Pre-Trial Evaluation of Experts.
(c) Need For Pre-Trial Evaluation.
(d) Factors in Evaluation.
(e) Findings of Fact.
Sec. 118. Non-Economic Losses.
Sec. 119. The Collateral Source Rule.
Sec. 120. Punitive Damages.
Sec. 121. Effective Date.

Uniform Product Liability Act

PREAMBLE

This Act sets forth uniform standards for state product liability tort law. It does not cover all issues that may be litigated in product liability cases; rather, it focuses on those where the need for uniform rules is the greatest. The purpose of these these uniform rules is to eliminate existing confusion and uncertainty on the part of both product users and product sellers about their respective legal rights and obligations. Improving the level of certainty as to how state product liability law will deal with claims for injuries caused by allegedly defective products should also, over time, promote greater availability and affordability in product liability insurance and greater stability in rates and premiums.

Sec. 100. SHORT TITLE

This Act shall be known and may be cited as the "Uniform Product Liability Act."

Sec. 101. FINDINGS

(a) Sharply rising product liability insurance premiums have created serious problems in interstate commerce resulting in:

(1) Increased prices of consumer and industrial products;

(2) Disincentives to develop high-risk but potentially beneficial products;

(3) Businesses going without product liability insurance coverage, thus jeopardizing the availability of compensation to injured persons; and

(4) Panic "reform" efforts that would unreasonably curtail the rights of product users.

(b) One cause of these problems is that product liability law is frought with uncertainty; the rules vary from jurisdiction to jurisdiction and are in a constant state of flux, thus militating against predictability of litigation outcome.

(c) Insurers have cited uncertainty in product liability law and litigation outcome as a justification for setting rates and premiums that, in fact, may not reflect actual product risk.

(d) Product liability insurance rates are set on the basis of a countrywise, not an individual state, experience. Thus, individual states can do little to solve the problem because a product manufactured in one state can readily cause injury in any one of the other 49 states or the District of Columbia.

(e) Uncertainty in product liability law and litigation outcome is added to litigation costs and may put an additional strain on the judicial system.

(f) Recently enacted state product liability legislation has widened already existing disparities in the law.

Sec. 102. DEFINITIONS

(1) *Product Seller.*

"Product seller" means any person or entity, including a manufacturer, wholesaler, distributor, or retailer, who is engaged in the business of selling such products, whether the sale is resale, or for use or consumption. The term "product seller" also includes lessors or bailors of products who are engaged in the business of leasing or bailment of products.

(2) *Product Liability Claim.*

"Product liability claim" includes all claims or actions brought for personal injury, death, or property damage caused by the manufacture, construction, design, formula, preparation, assembly, installation, testing, warnings, instructions, marketing, packaging, or labeling of any product. It includes, but is not limited to, all actions based on the following theories: strict liability in tort; negligence; breach of warranty, express or implied; breach or failure to discharge a duty to warn or instruct, whether negligent or innocent; misrepresentation, concealment, or nondisclosure, whether negligent or innocent; or under any other substantive legal theory in tort or contract.

(3) *Claimant.*

"Claimant" means a person asserting a legal cause of action or claim and, if the claim is asserted on behalf of an estate, claimant includes claimant's decedent. Claimants include product users, consumers, and bystanders who are harmed by defective products.

(4) *Harm.*

"Harm" includes damage to property and personal physical injuries including emotional harm. It includes damage to the product itself. Damage caused by loss of use of a product is not included, but a claim may be allowed if the seller expressly warranted this protection and this warranty was intended to extend to claimant.

(5) *Manufacturer.*

"Manufacturer" includes product sellers who design, assemble, fabricate, construct, process, package, or otherwise prepare a product or component part of a product prior to its sale to a user or consumer. It includes a product seller or entity not otherwise a manufacturer that holds itself out as a manufacturer.

(6) *Reasonably Anticipated Conduct.*

"Reasonably anticipated conduct" means conduct which would be expected of an ordinary prudent person who is likely to use the product.

(7) *Clear and Convincing Evidence.*

"Clear and convincing evidence" is that measure or degree of proof that will product in the mind of the trier of fact a firm belief or conviction as to the allegations sought to be established.

Sec. 103. SCOPE OF THIS ACT

(a) A product liability claim provided by this Act shall be in lieu of all existing claims against product sellers (including actions in negligence, strict liability, and warranty) for harms caused by a product.

(b) A claim may be asserted successfully under this Act even though the claimant did not buy the product from or enter into any contractual relationship with the product seller.

(c) The previously existing applicable state law of product liability is modified only to the extent set forth in this Act.

Sec. 104. THE BASIC STANDARDS OF RESPONSIBILITY

A product seller may be subject to liability for harm caused to a claimant who proves by a preponderance of the evidence that one or more of the following conditions apply: the product was defective in construction (Subdivision 104A); the product was defective in design (Subdivision 104B); or the product was defective in that adequate warnings or instructions were not provided (Subdivision 104C).

104(A) *The Product Was Defective in Construction.*

The harm was caused because the product was not made in accordance with the product seller's own design or manufacturing standards. In determining whether the product was defective, the trier of fact may consider the product seller's specifications for the product, and any differences in the product from otherwise identical units of the same product line.

104(B) *The Product Was Defective in Design.*

The harm was caused because the product was defective in design. In determining whether the product was defective, the trier of fact shall consider whether an alternative design should have been utilized, in light of:

(1) The likelihood at the time of manufacture that the product would cause the harm suffered by the claimant;

(2) The seriousness of that harm;

(3) The technological feasibility of manufacturing a product designed so as to have prevented claimant's harm;

(4) The relative costs of producing, distributing, and selling such an alternative design; and

(5) The new or additional harms that may result from such an alternative design.

104(C) *The Product Was Defective Because Adequate Warnings or Instructions Were Not Provided.*

The harm was caused because the product seller failed to provide adequate warnings or instructions about the dangers and proper use of the product.

(1) In determining whether adequate instructions or warnings were provided, the trier of fact shall consider:

(a) The likelihood at the time of manufacture that the product would cause the harm suffered by the claimant;

(b) The seriousness of that harm;

(c) The product seller's ability to anticipate at the time of manufacture that the expected product user would be aware of the product risk, and the nature of the potential harm; and

(d) The technological feasibility and cost of warnings and instructions.

(2) In claims based on Section 104(C), the claimant shall prove that if adequate warnings or instructions had been provided, a reasonably prudent person would not have suffered the harm.

(3) A product seller may not be considered to have provided adequate warnings or instructions unless they were devised to communicate with the person(s) best able to take precautions against the potential harm.

Sec. 105. UNAVOIDABLY UNSAFE ASPECTS OF PRODUCTS

(a) An unavoidably unsafe aspect of a product is that aspect incapable

of being made safe in light of the state of scientific and technological knowledge at the time of manufacture.

(b) A product seller may be subject to liability for failing to provide an adequate warning or instruction about an unavoidably unsafe aspect of the seller's product, if the factors set forth in Section 104, subdivision (C) indicate that such warnings or instructions should have been given. This obligation to warn or instruct may arise after the product is manufactured.

(c) If Section 104(C) is not applicable, the product seller shall not be subject to liability for harm caused by an unavoidably unsafe aspect of a product unless the seller has expressly warranted by words or actions that the product is free of such unsafe aspects.

Sec. 106. RELEVANCE OF THE "STATE OF THE ART" AND INDUSTRY CUSTOM

(a) For the purposes of this section, "state of the art" means the safety, technical, mechanical, and scientific knowledge in existence and reasonably feasible for use at the time of manufacture.

(b) Evidence of changes in a product design, in the "state of the art," or in the custom of the product seller's industry occurring after the product was manufactured is not admissible for the purpose of proving that the product was defective in design under Section 104(B), or that a warning or instruction should have accompanied the product at the time of manufacture under Section 104(C). The evidence may be admitted for other purposes if its probative value outweighs its prejudicial effect.

(c) Evidence of custom in the product seller's industry is generally admissible. The product seller's compliance or non-compliance with custom may be considered by the trier of fact in determining whether a product was defective in design under Section 104(C), or whether there was a failure to warn or instruct adequately under Section 104(C).

(d) Evidence that a product conformed to the "state of the art" at the time of manufacture, raises a presumption that the product was not defective within the meaning of Sections 104(B) and (C). This presumption may be rebutted by clear and convincing evidence that in light of the factors set forth in Section 104(B) and (C), the product was defective.

(e) A product seller may by a motion request the court to determine whether the injury-causing aspect of the product conformed to a non-governmental safety standard having the following characteristics:

(1) It was developed through careful, thorough product testing and a formal product safety evaluation;

(2) Consumer as well as manufacturer interests were considered in formulating the standard;

(3) It was considered more than a minimum safety standard at the time of its development; and

(4) The standard was up-to-date in light of the technological and scientific knowledge reasonably available at the time the product was manufactured.

If the court makes such a determination in the affirmative, it shall instruct the tier of fact to presume that the product was not defective. This presumption may be rebutted by clear and convincing evidence that in light of the factors set forth in Sections 104(B) and (C), the product was defective.

SEC. 107 RELEVANCE OF COMPLIANCE WITH LEGISLATIVE OR ADMINISTRATIVE STANDARDS

(a) A product seller may by a motion request the court to determine whether the injury-causing aspect of the product conformed to an administrative or legislative standard having the following characteristics:

(1) It was developed as a result of careful, thorough product testing and a formal product safety evaluation;

(2) Consumer as well as manufacturer interests were considered in formulating the standard;

(3) The agency responsible for enforcement of the standard considered it to be more than a minimum safety standard at the time of its promulgation; and

(4) The standard was up-to-date in light of the technological and scientific knowledge reasonably available at the time the product was manufactured.

(b) If the court makes such a determination in the affirmative, it shall instruct the trier of fact to presume that the product was not defective. This presumption may be rebutted by clear and convincing evidence that in light of the factors set forth in Section 104 (B) and (C), the product was defective.

SEC. 108. NOTICE OF POSSIBLE CLAIM REQUIRED

(a) An attorney who anticipates filing a claim under this Act shall present a notice of this claim stating the time, place and circumstances of events giving rise to the claim along with an estimate of compensation or other relief to be sought.

(b) This notice shall be given within six months of the date of entering into an attorney-client relationship with the claimant in regard to the claim. For the purposes of this Act, such a relationship arises when when the attorney, or any member or associate of the attorney's firm, agrees to serve the claimant's interests in regard to the anticipated claim. Notice shall be given to all persons or entities against whom the claim is likely to be made.

(c) Any product seller who receives notice pursuant to subsection (a) promptly shall furnish claimant's attorney with the names and addresses of all persons the product seller knows to be in the chain of manufacture and distribution, if requested to do so by the attorney at the time the notice is given. Any product seller who fails to furnish such information shall be subject to liability as provided for in subsection (e).

(d) A claimant who delays entering into an attorney-client relationship to delay unreasonably the notice required by subsection (a) shall be subject to liability as provided in subsection (e).

(e) Any person who suffers monetary loss because of the failure of a claimant or his attorney or of a product seller in the chain of manufacture and distribution to comply with the requirements of this section may recover damages, costs, and reasonable attorney's fees from that party. Failure to comply with the requirements of this section does not affect the validity of any claim or defense under this Act.

SEC. 109. LENGTH OF TIME PRODUCT SELLERS ARE SUBJECT TO LIABILITY FOR HARM CAUSED BY THEIR PRODUCTS

(A) Useful Safe Life.

(1) A product seller may be liable to a claimant for harm caused by the seller's product during the useful safe life of that product. "Useful safe life" refers to the time during which the product reasonably can be expected to perform in a safe manner. In determining whether a product's useful safe life has expired, the trier of fact may consider:

(a) The effect on the product of wear and tear or deterioration from natural causes;

(b) The effect of climatic and other local conditions in which the product was used;

(c) The policy of the user and similar users as to repairs, renewals and replacements;

(d) Representations, instructions and warnings made by the product seller about the product's useful safe life; and

(e) Any modification or alteration of the product by a user or third party.

(2) A product seller shall not be liable for injuries or damage caused by a product beyond its useful safe life unless the seller has so expressly warranted.

(B) Statutes of Repose.

(1) Workplace Injuries.

(a) A claimant entitled to compensation under a state worker compensation statute may bring a product liability claim under this Act for harm that occurs within ten (10) years after delivery of the completed product to its first purchaser or lessee who was not engaged in the business of selling products of that type.

Where this Act precludes a worker from bringing a claim because of subdivision (1)(a), but the worker can prove, by the preponderance of evidence, that the product causing the injury was unsafe, the worker may bring a claim against the workplace employer. If possible, the claim should be brought in a worker compensation proceedng, and shall include all loss of wages that otherwise would not be compensated under the applicable worker compensation statute.

(c) Where this Act precludes a worker's beneficiaries under an applicable wrongful death statute from bringing a wrongful death claim because of subdivision (1)(a), but they can prove, by a preponderance of evidence, that the product that caused the worker's death was unsafe, they may bring a claim against the workplace employer. If possible, the claim must be brought in a

Worker Compensation proceeding, and shall include pecuniary losses that would not have otherwise been compensated under the applicable worker compensation statute.

(d) An employer who is subject to liability under either subsection (1)(b) or (c) shall have the right to seek contribution from the product seller in an arbitration proceeding under Section 116 of the Act. Contribution shall be limited to the extent that the product seller is responsible for the harm incurred under the principles of Section 104 of this Act. The final judgment in that proceeding shall not be subject to trial de novo, but shall be treated as a final judgment of a trial court.

(2) Non-Workplace Injuries.

For product liability claims not included in subdivision (B) that involve harms occurring more than ten (10) years after delivery of the completed product to its first purchaser or lessee who was not engaged in the business of selling products of that type, the presumption is that the product has been utilized beyond its useful safe life as established by subdivision (A). This presumption may be rebutted by clear and convincing evidence.

(3) Limitations on Statutes of Repose.

(a) Where a product seller expressly warrants or promises that the seller's product can be utilized safely for a period longer than ten (10) years, the period of repose shall be extended according to these warranties or promises.

(b) The ten (10) year period of repose established in Section 109(B) does not apply if the product seller intentionally misrepresents a product, or fraudulently conceals information about it, where that conduct was a substantial cause of the claimant's harm.

(c) Nothing contained in Section 109(B) shall affect the right of any person found liable under this Act to seek and obtain contribution or indemnity from any other person who is responsible for harm under this Act.

(d) The ten (10) year period of repose established in Section 109(B) does not apply if the harm was caused by prolonged exposure to a defective product, or if an injury-causing aspect of the product existing at the time it was sold did not manifest itself until ten years after the time of its first use.

(C) Statute of Limitations.

All claims under this Act shall be brought within three years of the time the claimant discovered, or in the exercise of due diligence should have discovered, the facts giving rise to the claim.

SEC. 110. RELEVANCE OF THIRD-PARTY ALTERATION OR MODIFICATION OF A PRODUCT

(a) A product seller shall not be liable for harm that would not have occurred but for the fact that his product was altered or modified by a third party unless:

(1) The alteration or modification was in accordance with the product seller's instructions or specifications;

(2) The alteration or modification was made with the express consent of the product seller; or

(3) The alteration or modification was the result of conduct that reasonably should have been anticipated by the product seller.

(b) For the purposes of this section, alteration or modification includes changes in the design, formula, function, or use of the product from that originally designed, tested or intended by the product seller. It includes failure to observe routine care and maintenance, but does not include ordinary wear and tear.

SEC. 111. RELEVANCE OF CONDUCT ON THE PART OF PRODUCT LIABILITY CLAIMANTS

(a) General Rule.

In any claim under this Act, the comparative responsibility of, or attributed to, the claimant, shall not bar recovery but shall diminish the award of compensatory damages proportionately, according to the measure of responsibility attributed to the claimant.

(b) Apportionment of Damages.

In any claim involving comparative responsibility, the court, unless otherwise requested by all parties, shall instruct the jury to give answers to special interrogatories, or the court shall make its own findings if there is no jury, indicating—

(1) The amount of damages each claimant would have received if comparative responsibility were disregarded, and

(2) The percentage of responsibility allocated to each party, including the claimant, as compared with the combined responsibility of all parties to the action. For this purpose, the court may decide that it is appropriate to treat two or more persons as a single party.

(3) In determining the percentage of responsibility, the trier of fact shall consider, on a comparative basis, both the nature and quality of the conduct of the party.

(4) The court shall determine the award for each claimant according to these findings and shall enter judgment against parties liable on the basis of the common law joint and several liability of joint tortfeasors. The judgment shall also specify the proportionate amount of damages allocated against each party liable, according to the percentage of responsibility established for that party.

(5) Upon a motion made not later than one year after judgment is entered, the court shall determine whether all or part of a party's share of the obligation is uncollectible from that party, and shall reallocate any uncollectible amount among the other parties, including a claimant at fault, according to their respective percentages of fault. A party whose liability is reallocated is still to be subject to contribution and to any continuing liability to the claimant on the judgment.

(c) Conduct Affecting Claimant's Responsibility.

(1) Failure to Discover a Defective Condition.

(i) A claimant is not required to have inspected the product for defective condition. Failure to have done so does not render the claimant responsible

for the harm caused.

(ii) Where a claimant using a product is injured by a defective condition that would have been apparent to an ordinary prudent person, the claimant's damages are subject to reduction according to the principles of subsections (a) and (b).

(2) Using a Product With a Known Defective Condition.

(i) A claimant who knew about a product's defective condition, but who voluntarily and unreasonably used the product, shall be held solely responsible for injuries caused by that defective condition.

(ii) In circumstances where a claimant knew about a product's defective condition and voluntarily used the product, but where the reasonableness of doing so was uncertain, claimant's, damages shall be subject to reduction according to the principles of subsections (a) and (b).

(3) Misuse of a Product.

(i) Where a claimant has misused a product by using it in a manner that the product seller could not have reasonably anticipated, the claimant's damages shall be reduced according to the principles of subsections (a) and (b).

(ii) Where the injury would not have occurred but for the misuse defined in subsection (3)(i), the product is not defective for purposes of liability under this Act.

SEC. 112. MULTIPLE DEFENDANTS: CONTRIBUTION AND IMPLIED INDEMNITY

(a) Rights of contribution and implied indemnity among multiple defendants shall be determined by reference to the principles of Section 111 (a & b).

(b) If the proportionate responsibility of the parties to a claim for contribution has been established previously by the court, as provided in Section 111, a party paying more than its share of the obligation, upon motion, may recover judgment for contribution.

(c) If the proportionate responsibility of the parties to the claim for contribution has not been established by the court, contribution may be enforced in a separate action, whether or not a judgment has been rendered against either the person seeking contribution or the person from whom contribution is being sought.

(d) Contribution is available to a person who enters into a settlement with a claimant only: (1) if the liability of the person against whom contribution is sought has been extinguished, and (2) to the extent that the amount paid in settlement was reasonable.

(e) If a judgment has been rendered, the action for contribution must be brought within one (1) year after the judgment becomes final. If no judgment has been rendered, the person bringing the action for contribution either must have: (1) discharged by payment the common liability within the period of the statute of limitations or repose applicable to the claimant's right of action against him and commenced the action for contribution within one year after payment, or (2) agreed while action was pending to discharge the common

liability and, within one year after the agreement, have paid the liability and brought an action for contribution.

SEC. 113. THE RELATIONSHIP BETWEEN PRODUCT LIABILITY AND WORKER COMPENSATION

In the case of any claim brought under this Act by or on behalf of a person who has been or will be compensated for injuries under a state worker compensation law, where an employer's failure to comply with any statutory or common law duty relating to workplace safety contributed to the claimant's injuries, the employer shall be subject to a contribution claim as provided in Section 112 of this Act for a sum not to exceed the amount of the worker compensation lien.

SEC. 114. THE INDIVIDUAL RESPONSIBILITY OF PRODUCT SELLERS OTHER THAN MANUFACTURERS AS COMPARED TO OTHER PRODUCT SELLERS

(a) Manufacturers shall be responsible for defective conditions in their products according to the provisions of this Act. In the absence of express warrantees to the contrary, other product sellers shall not be subject to liability in circumstances where they do not have a reasonable opportunity to inspect the product in a manner which would or should, in the exercise of reasonable care, reveal the existence of the defective condition.

(b) The duty limitation of subsection (a) shall not apply, however, if:

(1) The manufacturer is not subject to service of process in the claimant's own state;

(2) The manufacturer has been judicially declared insolvent;

(3) The court determines that the claimant would have appreciable difficulty enforcing a judgment against the product manufacturer.

SEC. 115. SANCTIONS AGAINST THE BRINGING OF FRIVOLOUS CLAIMS AND DEFENSES

(a) After final judgment has been entered under this Act, either party, by motion, may seek reimbursement for reasonable attorneys' fees and other costs that would not have been expended but for the fact that the opposing party pursued a claim or defense that was frivolous.

(b) For the purposes of this Act, a claim or defense is considered frivolous if the court determines that it was without any reasonable legal or factual basis.

(c) If the court decides in favor of a party seeking redress under this section, it shall do so on the basis of clear and convincing evidence. In all motions under this section, the court shall make and publish its findings of fact.

(d) The motion provided for in subsection (a) may be filed and the claim assessed against the person who was responsible for the frivolous nature of the claim or defense.

(e) In situations where a claimant has been represented on a contingent fee basis and no legal costs have been or will be incurred by that claimant, the attorney for claimant may recover reasonable attorneys' fees based on the amount of time expended in opposing a frivolous defense.

(f) Claims for damages under this section shall not include expenses of persons not parties to the action.

SEC. 116. ARBITRATION

(a) Applicability.

In any claim brought under this Act where the amount in dispute is less than $30,000, exclusive of interest and costs, and the court determines in its discretion that any non-monetary claims are insubstantial, either party may by a motion institute a pre-trial arbitration proceeding.

(b) Rules Governing.

(1) The substantive rules of a Section 116 arbitration proceeding shall be those contained in this Act as well as those in applicable state law.

(2) The procedural rules of a Section 116 artibration proceeding shall be those contained in this section. If this section does not address a particular issue, guidance may be obtained from the the Uniform Arbitration Act.

(3) A legislatively designated state agency may formulate additional procedural rules under this Act.

(c) Arbitrators.

(1) Unless the parties agree otherwise, the arbitration shall be conducted by three persons, one of whom shall be either an active member of the state bar or a retired judge of a court of record in the state, one shall be an individual who possesses expertise in the subject matter area that is in dispute, and one shall be a lay person.

(2) Arbitrators shall be selected in accordance with applicable state law in a manner which will assure fairness and lack of bias.

(d) Arbitrators' Powers.

(1) Arbitrators to whom claims are referred pursuant to Section 116 shall have the power within the territorial jurisdiction of the court, to conduct arbitration hearings and make awards consistent with the provisions of this Act.

(2) State laws applicable to subpoenas for attendance of witnesses and the production of documentary evidence shall apply in procedures conducted under this chapter. Arbitrators shall have the power to administer oaths and affirmations.

(e) Commencement.

The arbitration hearings shall commence not later than 30 days after the claim is referred to arbitration, unless for good cause shown the court shall extend the period. Hearings shall be concluded promptly. The court may order the time and places of the arbitration.

(f) Evidence.

(1) The Federal Rules of Evidence [or designated state evidence code]

may be used as guides to the admissibility of evidence in an arbitration hearing.

(2) Strict adherence to the rules of evidence, apart from relevant state rules of privileges, is not required.

(g) Transcript of Proceeding.

A party may have a recording and transcript made of the arbitration hearing at its own expense. A party that has had a transcript or tape recording made shall furnish a copy of the transcript or tape recording at cost to any other party upon request.

(h) Arbitration Award and Judgment.

The arbitration award shall be filed with the court promptly after the hearing is concluded and shall be entered as the judgment of the court after the time for requesting a trial *de novo* has expired, unless a party demands a trial *de novo* before the court pursuant to subsection (i). The judgment so entered shall be subject to the same provisions of law, and shall have the same force and effect as a judgment of the court in a civil action, except that it shall not be subject to appeal.

(i) Trial *De Novo*.

(1) Within 20 days after the filing of an arbitration award with the court, any party may demand a trial *de novo* in that court.

(2) Upon demand for a trial *de novo*, the action shall be placed on the calendar of the court and treated for all purposes as if it had not been referred to arbitration. Any right of trial by jury that a party would otherwise have shall be preserved inviolate.

(3) At the trial *de novo*, the court shall not admit evidence that there had been an arbitration proceeding, the nature or amount of the award, or any matter concerning the conduct of the arbitration proceeding, except that the testimony given at the arbitration hearing may be used for impeachment purposes at a trial *de novo*.

(4) A party who has demanded a trial *de novo* but fails to obtain a judgment in the trial court, exclusive of interest and cost, more favorable than the arbitration award, shall be assessed the cost of the arbitration proceeding, including the amount of the arbitration fees, and—

(i) If this party is a claimant and the arbitration award is in its favor, the party shall pay to the court an amount equivalent to interest on the arbitration award from the time it was filed; or

(ii) If this party is a product seller, it shall pay interest to the claimant on the arbitration award from the time it was filed.

SEC. 117. EXPERT TESTIMONY

(a) Appointment.

The court may on its own motion or on the motion of any party enter an order to show cause why expert witnesses should not be appointed, and may request the parties to submit nominations. The court may appoint any expert witnesses agreed upon by the parties, and may appoint witnesses of its own selection. An expert witness shall not be appointed by the court unless he or

she consents to act. An expert witness appointed by the court shall be informed of his or her duties in writing, a copy of which shall be filed with the clerk, or at a conference in which the parties shall have opportunity to participate. An expert witness so appointed shall advise the parties of any findings; shall be available for deposition by any party; and may be called to testify by the court or any party. The court appointed expert witnesses shall be subject to cross-examination by each party, including a party calling that expert as a witness.

(b) Compensation.

(1) Expert witnesses appointed by the court are entitled to reasonable compensation in whatever amount the court may allow. The court, in its discretion, may tax the costs of such expert on one party or apportion them between both parties in the same manner as other costs.

(2) In exercising this discretion, the court may consider:

(i) Which party won the case;

(ii) Whether the amount of damages recovered in the action bore a reasonable relationship to the amount sought by the claimant or conceded to be appropriate by the product seller.

(c) Disclosure of Appointment.

In the exercise of its discretion, the court may authorize disclosure to the jury of the fact that the court has appointed the expert witness.

(d) Parties' Experts of Own Selection.

Nothing in this section limits the parties in calling expert witnesses of their own selection.

(e) Pre-Trial Evaluation of Experts.

The court in its discretion may conduct a hearing to determine the qualification of proposed expert witnesses. The court may order a hearing on its own motion or on the motion of either party.

(1) Need for Pre-Trial Evaluation.

In determining whether to grant such a motion, the court shall consider:

(i) The complexity of the issues in the case; and

(ii) Whether the hearing would deter the presentation of witnesses who are not qualified as experts on the specific issues.

(2) Factors in Evaluation.

If the court decides to hold such a hearing, it shall consider:

(i) The scope of the proposed witness' background and skills;

(ii) The formal and self-education the proposed witness has undertaken relevant to the instant case or similar cases; and

(iii) The proposed witness' potential bias.

(3) Findings of Fact.

In making a determination that a proposed expert witness is or is not qualified, the court shall state its findings of fact.

SEC. 118. NON-PECUNIARY DAMAGES

(a) Non-pecuniary damages, including "pain and suffering," shall be determined by the trier of fact. The court shall have the power to review such

damage awards.

(b) In cases where the claimant has not suffered permanent serious disfigurement, permanent impairment of bodily function, or permanent mental illness as a result of the product-related harm, non-pecuniary damages shall be limited to $25,000.

SEC. 119. THE COLLATERAL SOURCE RULE.

In any claim brought under this Act, the claimant's recovery shall be diminished by any amount he or she has received or will receive in compensation for the same damages from a public source. This provision shall also apply to parties who may be subrogated to the claimant's rights under this Act.

SEC. 120. PUNITIVE DAMAGES

(a) Punitive damages may be awarded if the claimant shows by clear and convincing evidence that the harm suffered was the result of the product seller's reckless disregard for the safety of product users, consumers, or bystanders who might be injured by the product.

(b) If the trier of fact determines that punitive damages should be awarded, the court shall determine the amount of those damages. In making this determination, the court shall consider:

(1) The likelihood at the time of manufacture that a serious harm would arise from the product seller's misconduct;

(2) The degree of the product seller's awareness of that likelihood;

(3) The profitability of the misconduct to the product seller;

(4) The duration of the misconduct and any concealment of it by the product seller;

(5) The attitude and conduct of the product seller upon discovery of the misconduct;

(6) The financial condition of the product seller; and

(7) The total effect of other punishment imposed or likely to be imposed upon the product seller as a result of the misconduct, including punitive damage awards to persons similarly situated to claimant and the severity of criminal penalties to which the product seller has been or may be subjected.

SEC. 121. EFFECTIVE DATE

This Act shall be effective with regard to all claims accruing on or after September 1, 1979.

ANALYSIS

PREAMBLE

The importance this Act places in increasing the degree of certainty in the product liability litigation process is tempered by the recognition that even with a nationwide adoption of a uniform code, its application may vary

from state to state on some issues. The goal is to promote a greater degree of certainty than the present system.

ANALYSIS

SEC. 100. SHORT TITLE

This is the customary "short title" provision. It may be placed wherever state legislative practice dictates. If a state legislature introduces parts of the Uniform Product Liability Act as separate measures, the short title should be adjusted accordingly.

ANALYSIS

SEC. 101. FINDINGS

Chapter VI and VII of the "Final Report" of the Interagency Task Force on Product Liaiblity (Task Force Report) provide support for most of the findings made here. Additional support comes from the Report of the Subcommittee on Capital, Investment and Business Opportunities, "Product Liability Insurance," 95th Cong., 2d Sess., Report No. 95-977 (1978) (Subcommittee Report). Among other things, this Report called for clarification and simplification of "present tort law relating to product liability for formulating Federal standards to be adopted by the States***" (Subcommittee Report, at 76).

Individual state studies on product liability conducted in Missouri (Report of the Senate Select Committee on Product Liability, 1977); Illinois (Judiciary I Subcommittee on Product Liability; Report and Recommendations—Part 1, undated); Georgia (Report of the Senate Products Liability Study Committee, 1978); Maine (Governor's Task Force, 1978); Michigan (Department of Commerce Task Force on Product Liability Insurance, 1978); and Wisconsin (Product Liability, An Overview, Wisconsin Legislative Council Staff, 1978) provide additional support for individual findings.

The Maine and Georgia reports emphasize that individual state tort reforms can do little to affect the product liability problem. Governor Grasso's message vetoing a product liability tort bill passed by the Connecticut legislature in 1978 emphasizd that individual state tort actions will not stabilize product liability insurance rates.

More specific references to the findings appear in the following citations keyed to the various findings.

(a)(1) Task Force Report at VI-27-28, V-19.

(2) Task Force Report at VI-28-32.

(3) Task Force Report at VI-2-26.

(4) Options Paper on Product Liability and Accident Compensation Issues, 43 FR 14612-4 (1978); Georgia Report Appendix B; Johnson Products Liability "Reform": A Hazard to Consumers, 56 N. "Carol L. Rev." 677 (1978); Comment, "State Legislative Restrictions on Product Liability Actions," 29 "Mercer L. Rev." 619 (1978). *See* Product Liability Legislation, Federal-State Reports, Inc. (1977-1978).

(b) Task Force Report at I-26-28, VII-15-17; Subcommittee Report at 72; Michigan Report at p. 6 (1978).

(c) Task Force Insurance Study (citing uncertainty); Task Force Report a V-48-49 (relationship of premium to risk).

(d) Task Force Report at I-28; Maine Report at 23.

(e) Task Force Report at VII-214-216; *see* ISO Product Closed Claim Survey at 118-130.

(f) *See* Federal State Product Liability Legislation; Federal State Reports (1977-1978); Product Liability Trends at 97-98, 104-05, 157-58 (1978); Business Insurance, p. 22 (12/25/78); *see also* Wisconsin Report at 29-37 (describing twenty-five separate bills on product liability introduced in one legislative session).

ANALYSIS

SEC. 102. DEFINITIONS

(1) *"Product seller"* includes all parties in the regular commercial distribution chain. It does not include the occasional private seller. This is in accord with the "Restatement (Second) of Torts." The term also includes lessors and bailors of products, in accord with the majority of case law decisions that have addressed that issue. *See* Annot. 52, "A.L.R." 3d 121 (1973).

The Act does not address several definitional problems of "product seller." First, it does not address the problem of the product seller engaged in a service. *See* "Newmark v. Gimbel's, Inc.," 54 N.J. 585, 258 A.2d 697 (1969). It is suggested that a party be considered a product seller where a sale of a product is a principal part of the transaction and where the essence of the relationship between the buyer and seller is *not* the furnishing of professional skill or services. *See* Annot., 29 "A.L.R." 3d 1425 (1970).

Second, the Act does not address the potential product liability problems of the seller of real property. It is suggested that it is only appropriate to apply product liability standards to builder-vendors who engage in the mass production and sale of homes. *See* "Schipper v. Levitt & Sons, Inc.," 44 N.J. 70, 207 A.2d 314 (1965); *But see* "Wright v. Creative Corp.," 30 Colo. App. 575, 498 P.2d 1179 (1972) (rejecting "Schipper).

Finally, the Act does not indicate whether a commercial seller of used products is subject to liability under this Act. This issue is left for resolution as a matter of individual state policy. *See* "Peterson v. Lou Bachrodt Chevrolet Co.," 61 Ill.2d 17, 329 N.E.2d 785 (1975).

(2) *"Product Liability Claim."* One key purpose of this act is to consolidate product liability actions that traditionally have been separated under theories of negligence, warranty, and strict liability. This approach was suggested by the Task Force "Legal Study" as well as the report of the Subcommittee on Capital, Investment and Business Opportunities. While an argument may be made that negligence theory is qualitatively different from strict liability and, therefore, should be preserved, product liability theory and practice has become an entity in and of itself and can only be stabilized if there is one, and not a multiplicity of causes of action.

"Product liability claim" embraces express as well as implied warranties.

(3) *"Claimant."* Both living persons and those claiming through or on behalf of an estate are included within the meaning of the word "claimant." This would include both wrongful death and survival actions.

Although the "Restatement (Second) of Torts" left open the question of whether bystanders should be included within the compass of strict liability claims, subsequent case law has been almost uniform that bystanders should be included. *See* "Giberson v. Ford Motor Co.," 504 S.W.2d 8 (Mo. 1974) (collecting cases). *See also,* Annot., 33 "A.L.R." 3d 415 (1970). The definition follows this line of decisions.

Bystanders include rescuers who come upon the scene. *See* "Guarino v. Mine safety Appliance Co.," 25 N.Y.2d 460, 255 N.E.2d 173 (1969).

(4) *"Harm."* The "Restatement" provision included physical harm to persons and property. This Act also includes emotional harm, but only as an element of parasitic damages, *e.g.,* when a person has alss been harmed physically. The Act leaves open the question of whether an individual may recover for emotional harm alone under a product liability theory; this issue is left to common law development.

The Act also includes damage to the product itself. *See* "Gherna v. Ford Motor Co.," 246 Cal. App. 2d 639, 55 Cal. Rptr. 94 (1966). Some courts consider this an economic loss and relegate the claimant to whatever rights he or she has under the sales provision of the Uniform Commercial Code. *See* "Hawkins Construction Co. v. Matthews Co., Inc.," 190 Neb. 546, 209 N.W.2d 643 (1973).

Apart from a very limited express warranty claim, the Act does not include damages for consequential economic losses. Most courts have been in accord with "Seely v. White Motor Co.," 63 Cal. 2d 9, 45 Cal. Rptr. 17 (1965) on this issue and have left the claimant with whatever rights he or she has under the Uniform Commercial Code. *See* "Brown v. Western Farmers Assn.," 268 Or. 470, 521 P.2d 537 (1974); "Eli Lilly and Co. v. Casey," 472, S.W.2d 598 (Tex. Civ. App. 1971); "Paul O'Leary Lumber Corp. v. Mill Equipment, Inc.," 448 F.2d 536 (5th Cir. 1971).

The insurance costs of extending consequential economic losses beyond parties to a contract would be enormous. It is much cheaper and more efficient for the product purchaser to obtain insurance against consequential economic losses caused by business stoppage. Also, most courts believe that a commercial purchaser should be charged with the risk that his product will not match his economic expectations unless the manufacturer agrees it will. *See* Note, "Economic Loss in Products Liability Jurisprudence," 66 "Colum. L. Rev." 917 (1966). However, a claimant can recover for consequential economic losses under an express warranty theory. *See* "Seely v. White Motor Co.," *supra.*

(5) *"Manufacturer."* This definition is based on one in Arizona's product liability law. *See* "Ariz. Rev. Stat. Ann." § 12-681 (1) (1978). Its greatest import within this act is in regard to the responsibility of a manufacturer for defective products as contrasted with other product sellers. *See* Section 114.

(6) *"Reasonably Anticipated Conduct."* The definition is based in part on Arizona product liability law. *See* "Ariz. Rev. Stat. Ann." § 12-681(4) (1978). The meaning of "reasonably anticipated" should be contrasted with "foreseeable." Almost any kind of misconduct with regard to products can be foreseeable—especially if the trier of fact is permitted to use hindsight, *e.g.*, that a soda bottle will be used for a hammer, that someone will attempt to drive a land vehicle on water, that perfume will be poured on a candle in order to scent it. *See* "Moran v. Faberge, Inc.," 273 Md. 538, 332 A.2d 11 (1975).

The approach taken places incentives for risk prevention on product sellers, while also ensuring that the price of products is not affected by the liability insurance costs that would spring from providing coverage for abnormal product use.

(7) *"Clear and Convincing Evidence."* Proof that is clear and convincing carries with it not only the power to persuade the mind as to its probable truth or correctness of fact; it has an additional element of clinching such truth. The term is understood best in context. It requires more proof than the mere preponderance of evidence (the ordinary standard under this Act), but does not require proof beyond a reasonable doubt. *See e.g.*, "Aiello v. Knoll Golf Club," 64 N.J. Super. 156, 165 A.2d 531 (1960); "Cross v. Ledford," 161 Ohio St. 469, 120 N.E.2d 118 (1954); "Brown v. Warner," 78 S.D. 647, 107 N.W.2d 1 (1961).

ANALYSIS

SEC. 103. SCOPE OF THIS ACT

(a) The Act consolidates all product liability recovery theories into one. The approach taken is in accord with the Task Force "Legal Study." While some have argued that for trial tactics purposes it is useful to retain the negligence cause of action as distinct from strict liability, a claimant's attorney can retain the essence of this utility by showing the basic wrongfulness of the product seller's conduct under Section 104.

(b) The Act is in accord with the "Restatement (Second) of Torts" in that it is unnecessary for the claimant to be in contractual privity with the product seller. *See* "Restatement (Second) of Torts" § 402A, Comment c.

(c) The Act and its accompanying commmentary do not purport to be an exhaustive compilation of the entire subject of product liability law; rather, they focus on subject matter areas that the Task Force Report suggested have created the most problems and are of major importance.

The interstices of the Act will be filled by statutory or common law additions of the individual states. Some of these interstitial issues will be pointed out in the section-by-section commentary; others will be discovered in the course of litigation under the Act.

ANALYSIS

SEC. 104. BASIC STANDARDS OF RESPONSIBILITY

Perhaps no single product liability issue has generated more controversy than the question of defining the basic standard of responsibility to which product sellers are to be held. Much of this controversy appears to have sprung from the fact that the authors of § 402A of the "Restatement (Second) of Torts" were focusing on problems relating to product mismanufacture or defects in construction; they were not directly concerned with problems relating to defects in design or to the duty to warn. *See* Wade, "On the Nature of Strict Tort Liability for Products," 44 "Miss. L.J." 825, 830-32 (1973).

Courts continue to struggle to articulate the standards of responsibility of product sellers. A multiplicity of approaches have been offered. *See e.g.*, "Barker v. Lull Engineering Co., Inc.," 20 Cal. 3d 413, 143 Cal. Rptr. 225 (1978); "Cepeda v. Cumberland Engineering Co. Inc.," 76 N.J. 152, 386 A.2d 816 (1978); "Phillips v. Kimwood machine Co.," 269 Ore. 485, 525 P.2d 1033 (1974).

The approach taken in Section 104 is to distinguish cases based on defects in construction, defects in design, and defects caused by a failure to instruct or warn. Each type of case calls for a particular type of treatment. For this reason, this Act does not have a "single" definition of the term "defect," nor does it attempt to resolve the debate over whether a product liability claimant should have to prove that the product was "unreasonably" dangerous. *Compare* "Barker v. Lull Engineering Co., Inc.," *supra*, and "Byrns v. Riddell, Inc.," 113 Ariz. 264, 550 P.2d 1065 (1976). Instead, Section 104 takes an approach which avoids terminological difficulties by focusing on practical considerations that courts and juries have looked to in deciding product liability cases.

This approach should not lead to problems of characterization. The claimant's pleading should indicate the theory on which he or she is proceeding within the framework of Section 104, subdivisions A, B, and C.

A product may be defective in more than one way. Furthermore, there is an important linkage between the duty to warn and defective design. In appropriate cases, a product may be found not to be defective in design if the product seller has given adequate warning about the alleged hazard. *See e.g.*, "Wagner v. Larsen," 257 Iowa 1202, 136 N.W.2d 312 (1965); "Penn v. Inferno Mfg. Corp.," 199 So.2d 210 (La. App.) *aff'd*, 251 La. 27, 202 So.2d 649 (1967). There are limits to this possibility, however, since a product seller will not be shielded from liability for a poorly designed product, simply by indicating that the product "may be hazardous."

The following commentary discusses each subdivision of Section 104 in turn. First:

(A) *The Product Was Defective in Construction.* This history of imposing strict liability for defects in the construction of products goes back as far as 1913 when sellers of food were first held liable for failure to produce a product reasonably fit for its intended use. *See* "Masetti v. Armour & Co.," 75 Wash.

622, 135 P.633 (1913); Prosser, "The Assault Upon the Citadel," 69 "Yale L.J." 1099 (1960).

Subdivision (A) imposes pure strict liability on the product seller in accordance with Section 402A of the "Restatement (Second) of Torts." This has been an evolving area of strict liability intended to protect the consumer. As Comment c to the "Restatement" states, the seller "has undertaken and assumed a special responsibility toward any member of the consuming public who may be injured [by the product]." Furthermore, "the public has the right to and does expect, in case of products which it needs and for which it is forced to rely upon the seller, that reputable sellers will stand behind their goods * * *" *Id.*

In the course of its study, the Interagency Task Force on Product Liability found that many product sellers can absorb the financial impact of strict liability based on defects in construction. *See* Task Force Report, at VII-17. The product seller as a distributor of many products absorbs the costs of injuries caused by such a defect (even though having exercised all reasonable care) as part of a responsibility inextricably connected with the modern merchandising of products.

Second:

(B) *The Product Was Defective in Design.* As compared to the situation with respect to defect in construction, no court yet has imposed true strict or absolute liability on product sellers for defects in design appreciating, no doubt, the unlimited liability potential inherent in such cases where it is almost always possible to design a product more safely. Rather, the courts have balanced a variety of factors in determining whether a particular product is defective in design. *See, e.g.,* "Barker v. Lull Engineering Co., Inc.," *supra;* "Cepeda v. Cumberland Engineering Co. Inc.," *supra;* "Schell v. AMF, Inc.," 567 F.2D 1259 (3d Cir. 1977).

There are several possible ways to limit the unlimited liability potential of design defect cases. One is to create a limited damage compensation system—private or governmental—analogous to worker compensation. Another is to continue to base liability on the individual's moral responsibility under the tort system. Subdivision (B) takes the latter course and places the burden on the claimant to show that in light of a balance of practical objective factors, the product seller should bear the full cost of the injury and have the responsibility for attempting to distribute that cost through product pricing. Basic principles of tort law suggest that the claimant should carry the burden of proof on this issue. *See* Kalven, Jr., "Torts: The Quest for Appropriate Standards," 53 "Calif. L. Rev." 189 (1965). *But see* "Barker v. Lull Engineering Co., Inc.," *supra.*

The factors listed in this subdivision for the trier of fact to consider have been derived from a very wide variety of sources. *See, e.g.,* "Barker v. Lull Engineering Co. Ltd.," *supra. See also* Vetri, "Products Liability: Developing a Framework for Analysis," 54 "Ore. L. Rev." 293, 310 (1975); Henderson, Jr., "Judicial Review of Manufacturers' Conscious Design Choices: The Limits of Adjudication," 73 "Colum. L. Rev." 1531 (1973); Keeton, "Product Liability and the Meaning of Defect," 5 "St. Mary's L.J." 30 (1973); Wade,

"On the Nature of Strict Tort Liability for Products," 44 "Miss. L. J." 825 (1973). The factors selected also have been reviewed from an economic perspective.

Factor (1) addresses the problem of judging design cases by hindsight, a significant and justifiable concern of product sellers. By focusing on the time of manufacture, Section 104(B) provides an incentive to product sellers to reduce risks, both by design testing and by warning of potential hazards.

Factor (2) raises the possibility that if at the time of manufacture there is the possibility of a very serious harm, the product seller's obligation to take steps to avoid it increases.

Factor (3) overlaps the Act's consideration of the "state of the art" in Section 106. The trier of fact should consider the scientific and technological knowledge available to the product seller at the time of manufacture as well as the custom in the industry.

Factor (4) recognizes that increased costs associated with an alternative design may play a part in deciding whether it is feasible to pursue. Courts occasionally have indicated that it is appropriate for the trier of fact to consider whether because of increased costs of an alternative design, "it would still be reasonable to market the product despite the danger." "Lynd v. Rockwell Manufacturing Co.," 276 Or. 341, 554 P.2d 1000, 1006 (1976).

Factor (5) indicates that if a weighing of considerations, (1)-(4) suggests that an alternative design should have been pursued, it still is appropriate for the trier of fact to consider any new or additional harms that would arise if this alternative design were chosen.

Thus, Subdivision (B) does not set out an algebraic formula as to how each of these factors should be weighed. Certainly, as factors (1) and (2) increase, the trier of fact is more likely to find that the product was defective. On the other hand, it must balance these factors against (3), (4), and (5).

Two factors relied on by some courts in design cases were not included in the Section 104(B) balancing process. First is the "utility" of the product to the user or to society in general. Economic analysis suggests that this element would render the balancing test totally subjective and unworkable. Tested by its "utility," a whole-grain health food cereal conceivably might be subject to a lower standard of responsibility than one that was heavily sugar-coated (less "useful" to society as a whole). On the other hand, if the trier of fact focused on the subjective "value to the user," it might come to the opposite conclusion. The approach of Section 104(B) is to focus the trier of fact on how the product was made and what its dangers are, rather than making macro-economic judgments about its value to society or to certain individuals.

The second factor not included in the Section 104(B) balancing process is a "consumer expectation" test. The reasons for this are rooted in both economics and practicality. As Professor Wade, Reporter for the "Restatement (Second) of Torts," has stated:

> [T]he consumer would not know what to expect, because he would have no idea how safe the product could be made.

Wade, *supra*, 44 "Miss. L.J." at 829. Again, the notion of consumer expectations suffers from an "overkill" of subjectivity. Each trier of fact is likely to have a different understanding of abstract consumer expectations. Section 104(B) leaves consumer expectations aside and focuses the trier of fact on what design alternatives were possible as a practical matter.

Third:

(C) *The Product Was Defective Because Appropriate Warnings or Instructions Were Not Provided.* A product seller may be held liable under this subdivision even though the product was not found to be defective in design or construction. Even where lack of scientific knowledge or cost factors precludes the use of an alternative design, the product seller still may be required to provide a warning about the product's hazards or to instruct about the proudct's use. *See* "Brown v. North Am. Mfg. Co." 576 P.2d 711 (Mont. 1978).

As the Task Force Report noted, rules relating to a product seller's duty to warn have changed drastically in recent years, and are unclear in some jurisdictions. *See* Task Force Report, at VII-18. Product sellers want to be informed about the scope of their duty. Nevertheless, practical problems make it impossible to develop a general rule that will inform the product seller—in advance of manufacture—precisely how to instruct or warn about a particular product. On the other hand, some general guidelines can be provided.

Subdivision (C)(1) lists practical factors that a trier of fact shall weigh in determining whether a particular product warning or instruction was adequate. The trier of fact should focus on both instructions and warnings; all representations about a product must be considered in evaluating whether the duty to warn has been discharged. *See* "McCormack v. Hankscraft Co.," 278 Minn. 322, 154 N.W.2d 488 (1967).

Factor (a) is similar to subsection (1) of subdivision (B). The trier of fact is to consider the likelihood that the harm against which the warning is directed will occur. Where the harm is more likely, the duty is greater.

Factor (B) is similar to subsection (2) of subdivision (B). The more serious the anticipated harm, the greater the duty to warn. *See* "Davis v. Wyeth Laboratories, Inc.," 399 F.2d 121 (9th Cir. 1968).

Factor (c) is of special importance. It recognizes that warnings are not made in a vacuum. The product seller must construct warnings and instructions in light of the training, experience, education and knowledge of those who are likely to avail themselves of those warnings or instructions. *See* "Halvorson v. American Hoist & Derrick Co.," 307 Minn. 48, 240 N.W.2d 303 (1976); *compare* "Ford Motor Co. v. Rodgers," 337 So.2d 736 (Ala. 1976); *See also* "Greiner v. Volkswagenwerk Aktiengesellschaft," 429 F.Supp. 495 (E.D.Pa. 1977).

This factor also allows the trier of fact to judge whether the danger was so obvious as not to require a warning. Some courts have followed the much criticized "patent danger" rule that shields the product seller from an obligation to warn about obvious hazards. Numerous jurisdictions have rejected the rule. *See, e.g.*, "Byrns v. Riddell, Inc.," 113 Az. 264, 550 P.2d 1065 (1976);

"Casey v. Gifford Wood Co.," 61 Mich. App. 208, 232 N.W.2d 360 (1975); "Brown v. North Am. Mfg. Co.," *supra.* In situations where it is inexpensive and easy to do so, it may be appropriate to warn about an obvious danger that is highly likely to cause very serious injuries. *See* Marschall, "An Obvious Wrong Does Not Make a Right: Manufacturers' Liability for Patently Dangerous Products," 48 "N.Y.U.L. Rev." 1065 (1973).

A product seller should be able to assume that the ordinary product user is familiar with obvious hazards—that knives cut, that alcohol burns, that it is dangerous to drive automobiles at high speeds.

Factor (d), the technological feasibility and cost of a warning, may not be significant in many cases because warnings are often relatively inexpensive to provide. However, in some situations, it may not be feasible technologically to provide a warning, or at least the type of warning that claimant suggests should have been provided.

Subsection (2) provides that a claimant must show that if adequate warnings had been given, it is more probable than not that the injury would not have occurred. In other words, a claimant must show that the failure to provide an appropriate warning was a cause of his or her harm. In this regard the claimant can show that if the warning had been given, either the product would have been used without incident, or it would not have been used at all. The later situation is likely to arise with pharmaceuticals. The test stated in subsection (2) is an objective one which looks toward the conduct of the reasonably prudent person. *Cf.* "Cobbs v. Grant," 8 Cal. 3d 229, 502 P.2d 1, 104 Cal. Rptr. 505. (1972)(informed consent).

Subsection (3) indicates that the warnings or instructions should be devised so as to communicate with the person best able to take suitable precautions. The product seller's duty to warn does not go beyond the technological and other information available at the time of manufacture. This is in accord with the overwhelming majority of court decisions. *See* "Robbins v. Farmers Union Grain Terminal Assn.," 552 F.2d 788 (8th Cir. 1977).

Analysis

SEC. 105. UNAVOIDABLY UNSAFE ASPECTS OF PRODUCTS

Section 105 follows the "Restatement (Second) of Torts" with respect to "products which, in the present state of human knowledge, are quite incapable of being made safe for their intended and ordinary use." *See* "Restatement (Second) of Torts" § 402A, Comment k; *see also* "N.H.Rev. Stat. Ann." § 507-D:4 (1978).

With the exception of one Illinois decision ("Cunningham v. MacNeal Memorial Hospital," 47 Ill. 2d 443, 266 N.E.2d 897 (1970)), subsequently overruled by "Ill. Ann. Stat." ch. 91 §§ 181-84 (1971 as amended), this approach has been followed by the common law courts throughout the United States. *See, e.g.,* "Moore v. Underwood Memorial Hospital," 147 N.J. Super. 252, 371 A.2d 105 (1977)(serum hepatitus contracted from blood supplied); "Dalke v. Upjohn Co.," 555 F.2d 245, (9th Cir. 1977)(tooth discoloration from

tetracycline); "Chambers v. G. D. Searle & Co.," 441 F. Supp. 377 (D. Md. 1975) (stroke allegedly from birth control pills); "Coffer v. Standard Brands, Inc.," 30 N.C. App. 134, 226 S.E.2d 534 (1976)(shell in nuts); "Hines v. St. Joseph's Hospital," 86 N.M. 763, 527 P.2d 1075 (1974)(blood transfusion).

Subsection (a) sets the time from which to judge the state of scientific and technological knowledge as the point when the product leaves the manufacturer's control. *See* "Cochran v. Brooke," 243 Or. 89, 409 P.2d 904 (1966).

Subsection (b) makes clear that a product seller may be subject to liability for failure to provide an adequate warning about an unavoidably unsafe aspect of a product. There are certain hazards, particularly in the pharmaceutical field, which are known or can be discovered through the exercise of reasonable care even though they cannot be avoided. *See* "Dalke v. Upjohn Co.," *supra;* "Chambers v. G. D. Searle & Co.," *supra;* "Toole v. Richardson-Merrell, Inc.," 251 Cal. App. 2d 689, 60 Cal. Rptr. 398 (1967).

The factual question underlying the legal issue of whether warnings or instructions were adequate is whether product sellers meet their duty to promulgate warnings and instructions commensurate with their *actual* knowledge gained from research and adverse reaction reports and their constructive knowledge as measured by scientific literature and other available means of communication. *See* "Dalke v. Upjohn Co.," *supra,* at 248; "McEwen v. Ortho Pharmaceutical Corp.," 270 Or. 375, 528 P.2d 522, 528-29 (1974). *Contra,* "Bruce v. Martin-Marietta Corp.," 544 F.2d 442 (10th Cir. 1976).

Subsection (b) also supports the concept of continuing obligation to warn and instruct based on new information about an unavoidably unsafe aspect of a product, discovered *after* it has been manufactured. *See* "Love v. Wolf," 226 Cal. App.2d 378, 38 Cal. Rptr. 183 (1964); "Sterling Drug, Inc. v. Yarrow," 408 F.2d 978 (8th Cir. 1969).

Finally, subsection (c) subjects a product seller to liability for an unavoidably unsafe aspect of a product if the seller expressly warrants that a product is free from such defects. For example, if the product seller states that a product is "free and safe from all dangers of addiction" and the claimint becomes addicted to the drug, the seller would be subject to liability. *See* "Crocker v. Winthrop Lab., Div. of Sterling Drug, Inc.," 514 S.W.2d 429 (Tex. 1974).

The approach taken in Section 105 recognizes that there may be circumstances where a seriously injured person is left without compensation for an injury caused by an unavoidably unsafe aspect of a product. This is unlikely to be a common occurrence, however, given the presence of other parties in the distributive chain. *See* Willing, "The Commnet k Character: A Conceptual Barrier to Strict Liability," 29 "Mer. L. Rev." 545, 580-81 (1978). For reasons of policy, Section 105 proposes that a product seller not be held responsible for harms that are simply unavoidable. *See* A. Johnson, "Products Liability 'Reform': A Hazard to Consumers," 56 "N. Carol. L. Rev." 676, 690 (1978). If the costs of these harms are to be shifted from the individual, they should be borne by society at large. Section 105 should help

encourage the development of new products without unleashing on the public unsafe products that are defective in construction or design under Section 104. It also makes clear to policy-makers that the tort-litigation system is not the means for addressing injuries caused by this type of hazard.

ANALYSIS

SEC. 106. RELEVANCE OF THE STATE OF THE ART AND INDUSTRY CUSTOM

Subsection (a) adopts a fundamental principle of evidence law for the purposes of product liability cases. It excludes the showing of post-accident changes in the design of a product, the "state of the art," or industry custom when the evidence is offered to show that the product was defective at the time of manufacture. *See* Federal Rule of Evidence 407 and Advisory Committee commentary.

The reasons underlying this rule are twofold: first, subsequent changes are deemed irrelevant (all they show is as one gets older, one may get wiser); and second, admission of such evidence may discourage the making of repairs. While the latter rationale has been challenged, *see* "Ault v. International Harvester Co.," 13 Cal. 3d 113, 528 P.2d 1148, 117 Cal. Rptr. 812 (1975), the relevance of such evidence on the issue of defectiveness is of very limited value. On the other hand, the prejudicial effect of showing the subsequent change or repair—particularly one undertaken by the product seller himself—is quite substantial. *See* "LaMonica v. Outboard Marine Corp.," 48 Ohio App.2d 43, 355 N.E.2d 533 (1976); "Haysom v. Coleman Lantern Co.," 89 Wash.2d 474, 573 P.2d 785 (1978).

Subsection (a) does permit the introduction of evidence of changes in the "state of the art" when it is relevant for purposes other than showing that the product was defective at the time of manufacture. Thus, evidence of such changes may be admissible to show that the product seller knew of the defect at a certain point in time. It might also be admissible where the product seller claimed the product hazard was impossible to avoid. In cases of this kind, the court should balance the probative value of the evidence against its prejudicial nature. Allowing the introduction of evidence in these cases should not become a vehicle for avoiding the basic purpose of the rule.

Subsections (b), (c), (d), and (e) address one of the major issues that have divided product sellers and consumer groups concerned about product liability. Product sellers have argued that when their products comply with the "state of the art," it is unfair to deem them defective. They further contend that industry custom is likely to incorporate all cost-justified product safety features. *See* R. Posner, "Economic Analysis of Law," 71 (1972). Consumers respond that it is inappropriate to permit product sellers to fix indirectly their own standard of liability. *See* Johnson, "Products Liability 'Reform': A Hazard to Consumers," 56 "N. C. L. Rev." 677, 680-81 (1978).

In reality, there may be less of a dispute between product sellers and consumers on this issue than appears on the surface. The approach taken in

Section 106 attempts to clarify matters by distinguishing between "custom" and "state of the art."

Subsection (a) defines "state of the art" to distinguish it from custom in the industry. It was derived from a recently enacted section of Arizona law. "Arix. Rev. Stat. Ann." § 12-681(6)(1978). The subsection (a) definition comprehends a level of safety that was possible as a practical matter at the time of manufacture.

Under subsection (b), compliance with industry custom is merely evidence that the trier of fact may consider in determining whether a product was defective under subdivisions (B) and (C) of Section 104. *See, e.g.,* "Bruce v. Martin-Marietta Corp.," 544 F. 2d 442 (10th Cir. 1976); "Baker v. Chrysler Corp.," 55 Cal. App. 3d 710, 127 Cal. Rptr. 745 (1976); "Maxted v. Pacific Car & Foundry Co.," 527 P. 2d 832 (Wyo. 1974); "Roach v. Kononen," 269 Ore. 457, 525 P. 2d 125 (1974); "Olson v. Arctic Enterprises, Inc.," 349 F.Supp. 761 (D.N.D. 1972).

Subsection (c) also permits introduction of evidence of non-compliance with custom—evidence likely to be introduced by a product liability claimant. While it might be argued that non-compliance with custom should signal that, in fact, the product was defective, situations may arise where the product manufacturer followed an alternative procedure that was no less safe (perhaps even safer) than custom in the industry. For that reason, non-compliance with custom is admissable, but does not create a situation where the trier of fact would consider the product defective *per se. See* "Poches v. J. J. Newbury Co.," 549 F.2d 1166 (8th Cir. 1977).

Subsection (d) raises a presumption of nondefectiveness if a product conformed to the "state of the art" at the time of manufacture. This follows "Colo. Rev. Stat. ann." § 13-21-403 (1978), but does not go as far as "Ky. Rev. Stat. Ann." ch. 411, § 3(2)(1978), which creates a presumption for both "state of the art" and custom in the industry. The overwhelming majority of case law probably would direct a verdict for defendant in this instance. *See, e.g.,* "Olson v. Arctic Enterprises, Inc.," *supra;* "Wilson v. Piper Aircraft Corp.," 282 Ore. 61, 577 P.2d 1322, 1326 (1978)(" . . . plaintiff's *prima facie* case of a defect must show more than the technical possibility of a safer design"); "Bruce v. Martin-Marietta Corp.," *supra;* "Maxted v. Pacific Car and Foundry Co.," *supra;* "Roach v. Kononen," *supra.*

Only a few intermediate appellate court decisions, primarily from one state, impose liability where the product was in accord with the technical, mechanical, and scientific knowledge reasonably feasible for use at the time of manufacture. *See, e.g.,* "Gelsumino v. E. W. Bliss Co.," 10 Ill. App. 3d 604, 295 N.E.2d 110 (1973) and its progeny. *But see* "McClellan v. Chicago Transit Authority," 34 Ill. App. 3d 151, 340 N.E.2d 61 (1975). *Compare* "Olson v. A.W. Chesterton Co.," 256 N.W. 2d 530 (N. Dak. 1977).

Section 106 thus provides special protection for the interests of product liability claimants in that it allows the trier of fact, in extraordinary situations, to find a manufacturer liable even though his product conformed to the "state of the art."

All presumptions aurhorized by this section can be rebutted by clear and convincing evidence that, in light of the factors set forth in § 104(2) or (3), that the product was defective. An example under § 104(2) where the presumption might be rebutted is where a product that conferred with a standard posed a very high probability of extremely serious injury and at the time of manufacture there were inexpensive and safer alternative methods of designing the product.

An example under § 104(3) where the presumption might be rebutted is if a product seller learned about a product hazard after the product was manufactured. In that instance, even though his product conformed with the "state of the art", the trier of fact may find that he should have made a reasonable effort to warn product users about such hazards. See Commentary to section 105.

Subsection (e) acknowledges that non-governmental entities may develop product standards that are both rigorous and sound. *See* Task Force Report, at IV-13-17. The review of such standards is a complex matter, and it is left to the court to decide whether a particular standard meets the criteria of subsection (e). Qualifying standards are given a special status—they create a presumption that the product was not defective in design under Section 104, subdivision (B).

ANALYSIS

SEC. 107. RELEVANCE OF COMPLIANCE WITH LEGISLATIVE OR ADMINISTRATIVE STANDARDS

Product sellers have contended that it is unfair to call a product defective when the challenged aspect of that product conformed to an applicable administrative or legislative standard. Some product liability loss prevention experts have suggested that making compliance with such standards a defense might create incentives for manufacturers to comply with them. Interagency Task Force on Product Liability, "Selected Papers," at 266 (Remarks of Professor Alvin S. Weinstein).

On the other hand, consumer groups have criticized such standards, claiming that many are formulated solely by and for industry. The approach of the common law as well as that embodied in the Consumer Product Safety Act, 15 "U.S.C." § 2074a (1976), is that most government safety standards are merely minimum standards. They are not set at a level that would make it appropriate to regard compliance with such standards as an absolute defense in a product liability case. *See* "Roberts v. May," 583 P.2d 305, 308 (Colo. App. 1978). Even if the standards were set above minimum safety criteria when formulated, keeping them up-to-date remains a problem.

Section 107(a) comports with this general approach by not treating compliance with legislative and administrative standards as an absolute defense. Nevertheless, it allows some "credit" for compliance with such standards in appropriate circumstances. In sum, Section 107(b) creates a rebuttable pre-

sumption of non-defectiveness if the product seller persuades the court that the standard:

(1) Was developed as the result of careful, thorough product testing and a formal product safety evaluation;

(2) Was developed through a procedure where both consumer and manufacturer interests were considered;

(3) Was more than a minimum safety standard; and

(4) Was up-to-date at the time the product was manufactured.

The section follows the existing case law that has made adjustment for standards that are sound. See "Jones v. Hittle Service, Inc.;" 219 Kan. 627, 549 P.2d 1383 (1976) (universally accepted standards for odorizing LP gas outweigh expert opinion); "McDaniel v. McNeil Laboratories, Inc.," 197 Neb. 190, 241 N.W. 2d 822 (1976) (determination of the FDA prevails in absence of proof that the manufacturer furnished incomplete, misleading, or fraudulent information); "Raymond v. Riegel Textile Corp.," 484 F.2d 1025 (1st Cir., 1937)(standard promulgated under the Flammable Fabric Act was outdated). *Cf.* "Restatement (Second) of Torts" § 288c (1975) (requiring claimant in all cases of compliance to show that a reasonable person would have taken additional precautions).

Section 107 does not speak to two topic relating to compliance with governmental standards. First, it does not treat "failure to comply." This area is left to common law development under the general principles of negligence *per se*. *See* W. Prosser, "Torts," at 190, n.31. Second, the Act does not cover the situation where the government has issued mandatory design and installation specifications. *See* "Hunt v. Blasius," 55 Ill. App.3d 14, 370 N.E.2d 617 (1977) (holding that compliance is an absolute defense).

ANALYSIS

SEC. 108. NOTICE OF POSSIBLE CLAIM REQUIRED

The purpose of this section is to inform product sellers at an early date that the product they produce may be defective. Under present law, a claimant may delay informing a product seller about a claim until the statute of limitations nearly has expired. In most jurisdictions, this period is two or three years. Although 77.8 percent of all bodily injury claims are reported within six months, *see* ISO, "Closed Claim Survey," at 100 (1977), the 22.2 percent that are not reported during this period are of concern because they represent about 68 percent of the claim payments.

A reasonable notice of claim requirement in product liability law promotes the interests of product users because it is a low-cost means of assisting product safety. Presumably, if informed about defective conditions at an early stage, a product seller is more likely to take action to correct such conditions and thus forestall future injuries. This is why notice of claim provision have been utilized in other contexts. *See, e.g.*, Uniform Commercial Code § 2-607 (warranty breaches); 18 E. McQuillan, "Municipal Corpo-

rations" § 53.154 (ed. rev. 1977) (suits against municipalities for injuries); 3 A. Larson, "Workmen's Compensation Law" § 78.00 *et seq.* (1976) (notice of injury to employer). *See also* Comment, "Notice Requirement in Warranty Actions Involving Personal Injury," 51 "Calif. L. Rev.," 586 (1963); Phillips, "Notice of Breach in Sales and Strict Tort Liability Law: Should There Be a Difference?," 47 "Ind. L.J." 457, 468-69 (1972)(observing that requiring notice of claims may encourage defendants to make reasonable settlements).

This section is adapted from the recently enacted "Minn. Stat. Ann." § 604.04 (1978). It differs from analogous notice of claim provisions in that it does not provide that a claim or defense will be barred by the failure to meet its conditions. As the court noted in "Greenman v. Yuba Power Products, Inc.," 59 Cal.2d 57, 377 P.2d 897, 27 Cal. Rptr. 697, 700 (1962), such a provision may "become a booby trap for the unwary. The injured consumer is seldom 'steeped in the business practice which justifies the rule,' [James, Product Liability, 34 Texas L. Rev. 192, 197] and at least until he has had legal advice it will not occur to him to give notice***"

Instead, Section 108 places a duty to give the notice of claim on the attorney. It imposes a cost on the attorney for investigation and other expenses that stem from the failure to give notice.

Section 108 also places a burden on product sellers, who are notified of an anticipated claim, to provide the attorney with the names and addresses of others known to be in the chain of distribution. Product sellers may also be held liable under this section for costs that stem from the failure to provide these names.

Section 108 assumes that claims arising under this section can be consolidated with the principal product liability claim brought under this Act.

ANALYSIS

SEC. 109 LENGTH OF TIME PRODUCT SELLERS ARE SUBJECT TO LIABILITY FOR HARM CAUSED BY THEIR PRODUCTS

Perhaps more than any other single factor alleged to be "the cause" of the countrywide product liability problem are the rules governing the responsibility of manufacturers for older products. Most product liability policies not only include claims based on products manufactured or sold during the given year, but also products manufactured or sold in the past. In the case of sellers of durable goods, this creates an "open-ended" liability situation.

The Supreme Court of Oregon summarized the general common rule with the statement: "Promonged use of a manufactured article is but one factor, albeit an important one, in the determination of whether a defect in the product made it unsafe***" *See* "Tucker v. United Crane & Shovel Corp.," 256 Ore. 318, 473 P. 2d 862 (1970) (boom crane manufactured in 1956, collapsed in 1965). *See also* "Gates v. Ford Motor Co.," 494 F. 2d 458 (10th Cir. 1974) (24-year-old tractor); "Kaczmarek v. Mesta Machine Co.," 463 F. 2d 675 (3d Cir. 1972) (30-year-old pickling machine); "Mondshour v. General

Motors Corp.," 298 F. Supp. 111 (D. Md. 1969) (17-year-old bus).

Partly in response to this open-ended liability potential, a number of states have enacted statutes of repose that begin at the time a product is first sold and distributed. *See, e.g.*, "Ariz. Rev. Stat. Ann." § 12-551 (1978) (12 years after product "first sold for use or consumption ***"); "Fla. Stat. Ann." § 95.031(2) (1978) ("12 years after the date of delivery of the completed product"); "Ill. Ann. Stat." § 21.2(b) (1978) (12 years from date of first sale—strict liability); "Ind. Stat. Ann. § 33-1-1.5-5 (1978) ("10 years after the delivery *** to the initial user"); "Neb. Rev. Stat." 25-702(2) (1978) (10 years after first sale); "Utah Code Ann." § 78-15-3(1) (1977) (6 years after date of initial purchase; 10 years after date of manufacture).

The advantages of these statutes are that they: (1) establish an actuarially certain date after which no liability can be assessed; and (2) eliminate tenuous claims involving older products for which evidence of defective condition may be difficult to produce. *See* "Telegraphers v. Ry. Express Agency," 321 U.S. 342 (1944).

On the other hand, a fundamental problem with these statutes is that they *may* deprive a person injured by a product of the right to sue even before the injury has occurred. *See* Johnson, "Products Liability 'Reform': A Hazard to Consumers," 56 "N.C.L. Rev." 677, 689-90 (1978); "Victorson v. Bock Laundry Machine Co.," 37 N.Y. 2d 295, 335 N.E.2d 275 (1975).

The limited available data show that the concern about older products may be exaggerated. *See* ISO, "Closed Claim Survey," at 105-108 (indicating that over 97 percent of product-related accidents occur within six years of the time the product was purchased and in the captive goods area 83.5 percent of all bodily injury accidents have occured within ten years of manufacture). Nevertheless, as the Task Force Report indicated, the underwriters' concern about *potential* losses associated with older products may be an important factor in the recent increase in liability insurance premiums for manufacturers of durable goods. *See* Task Force Report, at VII-21.

Section 109 attempts to provide product sellers with some security against stale claims, while preserving the claimant's right to obtain damages for injuries caused by unsafely manufactured products. It accomplishes this result through provisions on useful safe life, statutes of repose (with separate provisions for workplace and non-workplace injuries), and a statute of limitations.

(A) *Useful Safe Life.* The common law in most states is that "[t]he age of an allegedly defective product must be considered in light of its expected useful life and the stress to which it has been subjected." "Kuisis v. Baldwin-Lima-Hamilton Corp.," 457 Pa. 321, 319 A.2d 914, 923 (1974) (brake-locking mechanism on a crane fell after more than 20 years of use). The "Kuisis" court noted further that in "certain situations the prolonged use factor may loom so large as to obscure all others in the case." *Id.*

The bsic problem with most proposals to codify this rule into a useful life limitation has been the vagueness of the concept. Thus, while the Task Force Report noted that "if a useful life limitation were identified in statutory

form, it might be expected that it would be given more serious attention by both judge and jury," Task Force Report, at VII-27, it also observed that "the concept would still lack specificity." *Id.*

Subdivision 109(A) was derived from "Minn. Stat. Ann." § 604.03 (1978). It serves to remind the court and the trier of fact that a product seller may be held liable only for harms caused during the useful safe life of the product. It does not attempt to apply fixed useful life standards for all products. *See* Phillips, "An Analysis of Proposed Reform of Products Liability Statutes of Limitations," 56 "N.C.L. Rev." 663, 673 (1978). Rather, it identifies factors that may help the trier of fact determine how long a product reasonably can be expected to perform in a safe manner. Section 109 uses the term "useful safe life" (as compared to "useful life") because the period in which the product can have some utility may be well beyond the period in which the product is safe. For example, some drivers may continue to use tires that lack sufficient treads for safety.

Factors (a)-(e) are self-explanatory. Factor (d) refers to the useful safe life stated by the product seller. Relying on this provision, a product seller could indicate that a product should not be used beyond a certain period of time. However, subdivision (A) does not give the product seller absolute power to limit a product's useful safe life. While this was suggested in "Velez v. Craine & Clark Lumber Corp.," 33 N.Y.2d 117, 305 N.E.2d 750 (1973), subdivision (A) gives the trier of fact the power to determine whether the product seller's limitation was a reasonable one. *Cf.* "Henningsen v. Bloomfield Motors, Inc.," 32 N.J. 358, 161 A.2d 69 (1960). Further, this subdivison makes clear that a product seller's limitation on useful life cannot bind the rights of a bystander. Nevertheless, where the product seller imposes a reasonable limitation, the trier of fact should give very serious consideration to this fact in determining whether the product was used beyond its useful life.

Factor (e), dealing with modifications of the product by users or third parties, relates to conduct that might shorten the useful life of the product. While the Act treats product modifications in a separate section, they are also factors in determining whether a product has been used beyond its useful life.

(B) *Statutes of Repose.* Statutes of repose differ from statutes of limitations in that they set a fixed limit after the time of the product seller's allegedly wrongful conduct—a limit beyond which the product seller will not be held liable. The rationale of such statutes is two-fold: First, if not aware of a claim, the passing of time may make it extremely difficult for a product seller to construct a good defense because of the obstacle of securing evidence. Although the burden of proof on the issue of defectiveness remains on the claimant under the Act, a jury, as a practical matter, may demand an explanation from a product seller when the claimant has suffered a severe injury. The second rationale is that persons ought to be allowed, as a matter of policy, to plan their affairs with a reasonable degree of certainty. This goes to the heart of the product liability insurance rate setting problem. Even though past data show that 83.5 percent of bodily injury claims arise within a ten-year period, there is no safeguard in the existing law that the past will

portend the future. There is always the possibility that the number of claims for older products will increase. *See* ISO, "Closed Claim Survey," at 107.

(1) *Workplace injuries.* In the context of workplace injuries, the product seller's tort liability ends ten years from the date of the delivery of the completed product to its first purchaser or lessee who is not himself primarily engaged in the business of selling such a product. According to ISO data, 97.4 percent of product liability incidents occur within 72 months of the time a product is purchased. *See ISO, "Closed Claim Survey," at 108. Although the number of claims that would be cut off by this statute is small, the potential for such claims to arise has been a cause of the increase in product liability premiums.*

Although the data are limited, it appears in many instances that the reason for an unsafe workplace product has less to do with conduct of the product seller than it has to do with the party having direct responsibility for the care and maintenance of the workplace product—the employer. *See* ISO, "Closed Claim Survey," at 141. This is even more likely to be the case with products that are more than ten years old.

Therefore, subsection (1)(b) grants a product liability claimant subjected to an unsafe workplace product a claim against the workplace employer for lost wages and reasonable medical costs. As a practical matter, this provision amends state worker compensation law. The same is true of subsection (1)(c), which grants beneficiaries under state wrongful death acts a right to recover the pecuniary loss they suffered because an employer exposed the decedent to an unsafe product.

For purposes of this subsection an "unsafe" product is not only one that is defective within the meaning of Section 104, but also one that has been improperly maintained, altered or modified by the employer. The term also includes products that are no longer safe because they have simply worn out.

The Act places a strong incentive for accident prevention on the party who is in the best position to accomplish that goal. When a product is more than ten years old and is in an unsafe condition, the employer—not the product seller—is in the best position to take action to prevent workplace product injuries. This value of this incentive outweighs any new potential cost that may arise in the worker compensation system.

In the very few cases where an employer may be subject to additional liability, the product seller is not totally "off the hook." If the product seller has produced an unsafe product that has failed after a ten-year period because of a defective condition inherent in the equipment at the time of manufacture, the employer who is liable under this subsection has the right in an arbitration proceeding to bring a contribution claim against the product seller. The employer will then be able to recover, on a comparative responsibility basis, the amount that is appropriate under the circumstances of the accident.

As compared to ordiaary arbitration proceedings under this Act (which are subject to a trial *de novo*), the results of this arbitration proceeding are treated as a final judgment.

While product sellers may question the constitutionality of this arbitration provision, no serious constitutional issue can arise. The product seller benefits from this provision compared to present law which subjects product sellers to unlimited liability claims for full *tort* damages, including costs arising from pain and suffering and the possibility of punitive damages.

(2) *Non-workplace injuries.* For the most part, this subsection deals with consumer products. ISO data reflect that very few claims are for consumer goods arise after a ten-year period. Most such claims are for durable goods and would be handled under subsection (1) provisions relating to workplace injuries. *See* ISO, "Closed Claim Survey," at 105-197 (1977). Nevertheless, consumers justifiably are concerned about overly broad absolute cut-offs to their right to sue. This provision recognizes consumer concerns in three basic ways:

(1) The term of the statute is ten years—beyond the term enacted or proposed in a number of states;

(2) The statute begins to run at the time of purchase, not the time of manufacture; and

(3) The statute does not contain an absolute cut-off, but rather a presumption that the product has been used beyond its useful life. Colorado law adopts this approach. "Colo. Rev. Stat. Ann." § 13-21-403(3) (1978); most other state product liability statutes do not.

Consumer concerns are also addressed by three of the additional restrictions contained in the next section. These restrictions are applicable to both consumer and workplace products.

(3) *Limitations on statutes of repose.* The statute contains four key limitations on its scope of operation.

First, liability may result where a product seller has expressly warranted or promised that a product can be safely for a period longer than ten (10) years. *See also* Uniform Commercial Code § 2-725(2).

Second, the statute of repose provisions do not apply where product sellers intentionally have misrepresented their products.

Third, subdivision (B) does not affect contribution and indemnity claims. Thus, an interim seller will not have to absorb a liability loss that was the true responsibility of the original manufacturer. *See* Defense Research Institue (Monograph) "Products Liability Position Paper," at 22; *See also* Phillips, "An Analysis of Proposed Reform of Products Liability Statutes of Limitations," 56 "N.C.L. Rev." 663, 670-71 (1978).

Fourth, there is an exception for pharmaceuticals that cause harms that take many years to manifest themselves, *see, e.g.*, "Krug v. Sterling Drug, Inc.," 416 S.W.2d 143 (Mo. 1967), and products that cause perceptible harm only through prolonged exposure. *See* "Michie v. Great Lakes Steel Div., National Steel Corp.," 495 F.2d 213 (6th Cir. 1974). *See also* Johnson, "Products Liability 'Reform': A Hazard to Conumers," *supra*, at 690-91 ("slumbering defects").

(c) *Statutes of Limitation.* Tort statutes of limitations traditionally begin at the time a person is injured. This subdivision follows that approach.

Nevertheless, in accord with consumer concerns, subdivision (C) extends the limitation period beyond the time of injury in situations where the claimant would be unlikely to discover that he or she has been harmed, *e.g.*, long-term pharmaceutical harms. *See* Birnbaum, "First Breaths' Last Gasp: The Discovery Rule in Products Liability Cases," 13 "The Forum" 279 (1977). 000

ANALYSIS

SEC. 110 RELEVANCE OF THIRD-PARTY ALTERATION OR MODIFICATION OF A PRODUCT

This section deals with the situation where a third party—one other than the product seller or the claimant—has altered or modified the product and this has led to claimant's harm.

A few courts have imposed liability on the product seller in this situation provided that the third party's conduct was in some manner "foreseeable." *See, e.g.*, "Blim v. Newbury Industries, Inc." 443 F.2d 1126 (10th Cir. 1971) (machine safety guard removed by co-worker). Decisions that hold the original product seller responsible in these instances border on absolute liability. Thus, insurers appear to have a just concern about broad-scale imposition of liability where third party intervention has been the principle cause of the accident. As the American Insurance Association has noted:

> It is difficult enough to calculate the risk associated with a given product even where there is access to knowledge about its basic inherent characteristics*** The task becomes impossible if the premium calculations must take into account not only the inherent properties of the machine, but also its transformation in the hands of others, and their neglect of repair and maintenance.

AIA (monograph) "Products Liability Legislative Package," at 16 (1977). Moreover, if the law ignores modification of products, it will fail to place the incentive for risk prevention on the party or parties who have engaged in the wrongful conduct.

The authors of the "Restatement (Second) of Torts" § 402A recognized this fact and only subjected the product seller to liability when the seller's product reached "the user or consumer without substantial change in the condition in which it [was] sold." Comment g to this section stated the matter more firmly:

> The seller is not liable when he delivers the product in a safe condition, and subsequent mishandling or other causes make it harmful by the time it is consumed. The burden of proof that the product was in a defective condition at the time that it left the hands of the particular seller is upon the injured plaintiff, and unless evidence can be produced which will support the conclusion that it was then defective, the burden is not sustained.

Recently, a number of state legislatures have enacted the essence of this comment into law. *See* "Ariz. Rev. Stat. Ann." § 12-683(2) (1978); "Ind. Stat. Ann." 33-1-1.5 § 4(b)(3) (1978); "Ky. Rev. Stat. Ann." ch. 411, § 4 (1978);

"N.H. Rev. Stat. Ann." § 507-D:3 (1978); "R.I. Gen. Laws Ann." ch. 299, § 9-1-31 (1978); "Tenn. Code Ann." ch. 703, § 9 (1978); "Utah Code Ann." § 78-15-5 (1977).

According to ISO's statistics, product modification occurs only in approximately 13 percent of the cases. Of these cases, the largest number of product modifications result from the conduct of employers (39 percent). *See* ISO "Closed Claim Survey," at 140-41. This raises the main problem of rules that limit a product seller's responsibility for subsequent product alterations or modifications—often the injured worker cannot sue the one who is really at fault because of the "exclusive remedy" provisions or worker compensation statutes. However, it seems fair to suggest that the destruction of a tort remedy against the employer

> Should not of itself create a third-party remedy against the manufacturer or distributor of the product in question. If Worker Compensation is regarded as the proper remedy in other cases of an exclusive employer's wrong, then so too should it be where that wrong involves [a] product acquired from third party defendants.

AIA (monograph) "Product Liability Legislative Package," at 15-16 (1977). Nevertheless, Sction 110 takes account of the hardship that can result from an overly broad liability limitation on product modification or alteration; the provision is very narrowly drawn.

First, a product seller may avoid liability for a defective product *only* where the harm would not have occurred "but for" the alteration or modification. In contrast, the "Restatement" and the recently enacted state statutes cited above would shield the manufacturer whenever the third party's conduct was a "substantial cause." A rule of this type, however, invites litigation over what is "substantial," and also may diminish a product seller's responsibility for otherwise culpable conduct.

Cases in accord with the approach taken in Section 110 include "Temple v. Wean United, Inc.," 50 Ohio St.2d 317, 364 N.E.2d 267 (1977); "Santiago v. Package Machinery Co.," 123 Ill. App. 2d 305, 260 N.E.2d 89 (Ill. App. 1970); "St. Pierre v. Gabel," 351 So. 2d 821 (La. App. 1977).

Second, as subsections (a)(1) and (2) indicate, the product seller can not avoid responsibility for product alterations or modifications which the seller suggested (per instructions) or which the seller expressly consented.

Third, the product seller has a duty to anticipate certain modifications or alterations of his product. As Section 102(6) (Definitions) indicated, this refers to conduct that would be engaged in by a reasonably prudent person. Subsection (a)(3) is not intended to encompass every type of act foreseeable by virtue of hindsight or otherwise.

Finally, subsection (b), adapted from Rhode Island Gen. Law Annot. ch. 299, Sec. 1 (1978), makes clear that ordinary wear and tear in a product is not the equivalent of a modification or alteration. However, a third party's failure to observe routine care and maintenance is considered a modification. In such instances, the third party is responsible for the injury. *See* "Ore. Rev.

Stat." § 30.915 (1977); "N.H. Rev. Stat. Ann." § 507-D:3 (1978); "Utah Code Ann." § 78-15-5 (1977).

ANALYSIS

SEC. 111. RELEVANCE OF CONDUCT ON THE PART OF PRODUCT LIABILITY CLAIMANTS

Section 111 attempts to resolve existing uncertainty in the law about the relevance of a product liability claimant's conduct. It does this in two ways: First, it applies principles of comparative responsibility to situations where claimant's conduct suggests that he or she has some responsibility for the product-related incident. Second, it characterizes three basic kinds of such conduct and provides rules for each of them, namely, failure to inspect for a defective condition, use of a product with a known defective condition, and misuse of a product.

Although there is no assurance that the use of comparative responsibility principles will lower the cost of product liability claims, the inherent fairness of such principles has led to their adoption by over 30 states, and also has resulted in the adoption of a Uniform Comparative Fault Act (UCFA) by the National Conference of Commissioners of Uniform State Laws. This Act borrows freely from the UCFA and its accompanying commentary.

Some courts and commentators have voiced concern about the semantical and theoretical difficulties of mixing the "apples" of negligence with the "oranges" of strict liability. *See, e.g.,* "Kirkland v. General Motors Corp.," 521 P.2d 1353 (Okla. 1974); Robinson, "Square Pegs (Products Liability) in Round Holes (Comparative Negligence)," 52 "Calif. St. B.J." 16 (1977). These concerns appear to be more theoretical than real, particularly under this Act (as well as in common law product liability) where defendants are held liable based on conduct which may reflect varying degrees of fault. The utility of comparative responsibility for product liability cases has been appreciated by both state legislatures, *e.g.,* "Ark. Stat. Ann. §§ 27-1763-1765) (Supp. 1977); "Me. Rev. Stat. Ann." tit. 15 § 156 (Supp. 1978)), and courts *e.g.,* "Thibault v. Sears, Roebuck & Co.," 6 Prod. Saf. & Liab. Rep. 1000 (S. Ct. N.H. 1978); "Daly v. General Motors Corp.," 20 Cal. 3d 725, 575 P.2d 1162, 144 Cal. Rptr. 380 (1978); "Busch v. Busch Const., Inc.," 262 N.W.2d 377 (Minn. 1977); "Butaud v. Suburban Marine & Sport. Goods, Inc.," 555 P.2d 42 (Alaska 1976). It has also been recommended by a congressional subcommittee. *See* Report of the House Subcommittee on Capital, Investment and Business Opportunities at 76 (1978).

Section 111 places a strong incentive for risk prevention on the party who is best able to accomplish that goal. It also avoids burdening the careful product user with liability insurance costs assessed to persons who misuse or are otherwise at fault in their handling of products. While some economical analyses indicate that a comparative responsibility system creates a risk of economic inefficiency because of an over-investment in safety, the Act makes a value judgment that such an "over-investment" is a risk worth taking.

(a) *General Rule.* This subsection describes the general principle of comparative responsibility that will be applied under this Act. It *assumes* that the product seller has engaged in conduct that would lead to liability under this Act. Where the claimant has engaged in subsection (c)-type conduct and thus is at least partially responsible for the injury, such conduct will diminish the amount of the claimant's award proportionately to that measure of responsibility.

Section 111 adopts the consumer-oriented fairness of pure comparative negligence as compared with the "non-discriminating rough justice of the modified type . . ." *See* "Prefatory Note," UCFA.

(b) *Apportionment of Damages.* In order to apply comparative responsibility principles under this Act, it is necessary for the trier of fact to supply certain information in written interrogatories. Subsection (b)(1) indicated that the trier of fact should set forth the amount of damages a claimant would receive if his comparative responsibility were disregarded. This helps assure that the trier of fact does not inflate or deflate the amount of damages claimant would deserve if he were free from responsibility.

Subsection (b)(2) requires the trier of fact to indicate the percentage of responsibility allocated to each party, including the claimant. Persons not before the court are not included, in part because of the extreme difficulty of determining the fault of such parties. Also, a jury's determination of an absent person's "fault" would not be binding on that person. In any event, both claimants and product sellers will have a significant incentive for joining available defendants since the greater the number of parties at fault, the smaller the percentage of fault allocated to each, whether claimant or product seller.

Subsection (b)(3) provides a general guideline to assist the trier of fact in comparing "fault" among the parties. The UCFA comments indicate that in appropriate cases, the trier of fact may also consider:

(1) Whether the conduct was mere inadvertence or engaged in with an awareness of the danger involved:

(2) The magnitude of the risk created by the conduct, including the number of persons endangered and the potential seriousness of the injury;

(3) The significance of what the actor was seeking to attain by his conduct;

(4) The actor's superior or inferior capacity; and

(5) The particular circumstances, such as the existence of an emergency requiring a hasty decision.

Section 111 departs from the UCFA in one respect—it does not consider "the extent of the casual relationship between the conduct and the damages claimed" as a factor in apportioning responsibility. While the distinction may be a difficult one to draw, this Act is premised on apportioning *responsibility* only—pure causation in terms of the physical cause of the particular injury is irrelevant to that concept. *See* Malone, "Ruminations on Cause-In-Fact," 9 "Stan. L. Rev." 60 (1956).

Subsection (b)(4) helps to assure that the mathematics of comparative responsibility will be correctly determined. The court must determine the award for each claimant according to its findings made under this subsection. The subsection also indicates that the common law rule of joint and several liability of joint tortfeasors continues to apply under this Act. Claimant can recover the total amount of his or her judgment against any product seller who is liable under this Act.

However, as with the UCFA, the judgment for each claimant will also show the share of each party's total obligation to the claimant. This should save litigation costs and avoid the need for a special motion or a separate action on the issue. In situations where an employer would be immune from suit by the product claimant, the limitation of Section 113 applies.

Subsection (b)(5) follows the UCFA in providing for the reallocation of damages among the parties at fault when one of the parties' share is uncollectable. The reallocation procedure applies to a claimant who is contributorily at fault. This approach avoids the unfairness of the common law rule of joint and several liability, which would cast the total risk of uncollectibility upon the solvent defendants, and of a rule abolishing joint and several liability, which would cast the total risk of uncollectibility on the claimant.

(c) *Conduct Affecting Claimant's Responsibility.*

(1) *Failure to Discover a Defective Condition.* At common law the product user had an obligation to inspect for defects; failure to do so could bar a claim. *See* "Palmer v. Massey-Ferguson, Inc." 3 Wash. App. 508, 476 P.2d 713 (1970). However, under modern tort law, the product user is assured of a product that is reasonably safe for its ordinary use. *See* "Restatement (Second) of Torts" § 402A (1965); "Cepeda v. Cumberland Eng. Co.," 76 N.J. 152, 386 A. 2d 816 (1978). Section 111(c) follows these cases and does not require the product user or consumer to inspect a product for a defect. *See* "Kassouf v. Lee Bros. Inc.," 209 Cal. App. 2d 568, 26 Cal. Rptr. 276 (1962) (plaintiff without inspection, ate a chocolate bar containing worms and maggots).

Cases can arise where a defect would be very apparent to an ordinary prudent person. In such cases, it is appropriate to allow the trier of fact to diminish claimant's damages according to the latter's responsibility for the injury that occurred. Thus, in the example of the candy bar, if a claimant with good eyesight ate a candy bar that had bright green worms crawling over it, he or she should bear some responsibility for any ill effects suffered. If the product seller was aware of the defect in the goods at the time of sale, the punitive damages section of the Act (Section 120) would provide a strong disincentive to not sell such a product.

(2) *Using a Product With a Known Defect Condition.* Where it is clear that a claimant both voluntarily and unreasonably used a product with a known defective condition, the product seller is not liable under this Act. To allow a claim in such a situation would permit individuals, in effect, to create their own product liability claim. In that regard, it should be noted that consent is a defense to even intentional wrongs. *See* W. Prosser, "Torts," *supra*, at 101.

However, there may be cases where an individual voluntarily uses a product with a known defective condition, but the reasonableness of this conduct becomes a matter of dispute. For example, if a person discovers a welt in a tire, should that person be required to stop immediately and call for assistance, or is it reasonable to proceed to a nearby gasoline station to have the tire repaired? Many cases arise in this shadowy zone. *See* "Henderson v. Ford Motor Co.," 519 S.W.2d 87 (Tex. 1974) with "Ford Motor Co. v. Lee," 237 Ga. 554, 229 S.E.2d 379 (1976). Subsection (c)(2) allows the trier of fact to consider claimant's conduct and reduce damages where it is appropriate to do so.

Subsections (c)(1) and (2) avoid a problem that existed under the "Restatement," though through no fault of the "Restatement" drafters. Persons who engaged in very similar conduct were treated in a very different manner. For example, those who used a product after failing to discover a defective condition were granted a full claim and those who used a product after they had discovered that defective condition were barred. *See* "Restatement (Second) of Torts" § 402A, Comment n. This dichotomy caused litigation and appeals over the issue of whether or not plaintiff "knew" of a particular defect at the time he utilized a product. *See* "Karabatsos v. Spivey Co., 49 Ill. App. 3d 317, 364 N.E.2d 319 (Ill. App. 1977); "Teagle v. Fischer & Porter Co.," 89 Wash. 2d 149, 570 P.2d 438 (1977); "Poches v. J. J. Newberry Co.," 549 F.2d 1166 (8th Cir. 1977).

(3) *Misuse of a Product.* Subsection (c)(3) imposes no liability on the product seller where an injury occurs solely because claimant misused the product in some way that the product seller could not reasonably anticipate. Reasonably anticipated conduct is conduct which would be expected of an ordinary and prudent person. *See* Section 102(6) and commentary. Misuse by claimant in this context is equivalent to modification or alteration of the product by a third party. *See* "Rogers v. Unimac Co., Inc.," 115 Ariz. 304, 565 P.2d 181 (1977); "General Motors Corp. v. Hopkins," 548 S.W.2d 344 (Tex. 1977); "Edwards v. Sears, Roebuck & Co.," 512 F.2d 276 (5th Cir. 1975); *see also* Section 110.

In determining whether the product seller should have warned or instructed the claimant about potential misuses, the trier of fact should consider the factors listed in Section 104(C).

Where misue of a product was a partial cause of an injury, claimant's damages are subject to reduction. *See* "General Motors Corp. v. Hopkins," *supra.*

ANALYSIS

SEC. 112. MULTIPLE DEFENDANTS: CONTRIBUTION AND IMPLIED INDEMNITY

Section 112 is based on sections 4 and 5 of the UCFA. Here, however, contribution and implied indemnity are merged in one section. Express indemnity—where one party has agreed to hold the other harmless for damages

arising out of product liability actions—is left to commercial and common law. *See* Task Force Report, at VII-99. There is clear precedent for the merger of contribution and implied indemnity. *See* "Safeway Stores, Inc. v. Nest-Kart," 21 Cal. 3d 322, 146 Cal. Rptr. 550 (1978); "Dole v. Dow Chemical Co.," 30 N.Y.2d 143, 282 N.E.2d 288 (1972); "Skinner v. Reed-Prentice Division, Etc.," 70 Ill. 2d 1, 374 N.E.2d 437 (1977); "Busch v. Busch Constr., Inc.," 262 N.W.2d 377 (Minn. 1977). *See also* "N.Y. Civ. Prac. Law" § 1402 (McKinney Supp. 1976). This approach avoids the all-or-nothing aspect of implied indemnity law. In most situations, fault will be apportioned among product seller defendants. However, a situation could arise where the trier of fact could find that one product seller in the distribution chain was responsible for a product injury. This section should be read in conjunction with Section 113.

Subsection (a) establishes the basic rule that contribution will be determined by the proportionate responsibility of the defendants. Section 111 outlines the procedure for the trier of fact to make the appropriate determinations.

Subsection (b) outlines a simplified procedure where a party who has paid more than a proportionate share can recover from one who has paid less.

Subsection (c) indicates that if the court has not determined the proportionate responsibility of the parties, contribution may be obtained in a separate action.

Subsection (d) indicates when a contribution action may be brought by a joint tortfeasor who has settled with claimant.

Subsection (e) sets time limits for bringing a contribution action.

It should be noted that contribution is appropriate among joint tortfeasors; each defendant contributing to the same harm is liable to the claimant for the whole amount of damages. If the defendants are liable for separate harms, contribution is not appropriate. *See* UCFA, comment on section 4.

Finally, an important issue in the area of contribution is left to the states, that is, the effect of a release of one tortfeasor but not the others. UCFA section 6 suggests an appropriate approach to this issue; the commentary on that section discusses the pros and cons of alternative approaches.

Analysis

SEC. 113. THE RELATIONSHIP BETWEEN PRODUCT LIABILITY AND WORKER COMPENSATION

The relationship between product liability and worker compensation is a major topic covered in depth in the Task Force Report. *See* VII-85-113. Under current law in a number of states, the interaction of product liability and worker compensation law may result in the manufacturer of a workplace product paying the entire out-of-pocket cost of a product-related workplace injury plus damages for pain and suffering. This result occurs because the product manufacturer is unable to place a portion of the cost of that injury on an employer whose *negligence* may have helped bring about the claimant's

injury. *See* "Liberty Mut. Ins. Co. v. Westerlind," 373 N.E.2d 957 (Mass. 1978); "Seaboard Coast Line R. Co. v. Smith," 359 So.2d 427 (Fla. 1978); Task Force Report, at VII-89-99.

After weighing many considerations, the Task Force and the United States Department of Commerce concluded that the development of worker compensation as a sole source for recovery in product-related accidents would be the best solution to the problem, but only if the worker received additional benefits in the course of overall worker compensation reform. A model product liability law is an inappropriate vehicle for making major alterations in worker compensation law.

The search for the next solution is not an easy one. If full contribution or indemnity by the product manufacturer against the employer is permitted, the employer may be forced to pay an employee—through the conduit of the third-party tortfeasor—an amount in excess of the employer's statutory worker compensation liability. This, arguably, thwarts a central concept behind worker compensation, *i.e.*, that the employer and employee receive the benefits of a guaranteed, fixed schedule, non-fault recovery system, which constitutes the *exclusive* liability of the employer. On the other hand, if contribution or indemnity is not allowed, the product manufacturer will bear the burden of a full common law judgment, despite the possibly greater responsibility of the employer. As the Supreme Court of Minnesota recently noted, this "obvious inequity is further exacerbated by the right of the employer to recover directly or indirectly from the third party the amount he has paid in compensation regardless of the employer's own negligence." *See* "Lambertson v. Cincinnati Corp.," 257 N.W.2d 679, 684 (Minn. 1977).

Equally troublesome is the fact that the present system appears to dull employer incentives to keep workplace products safe. the ISO "Closed Claim Survey" suggests that employer negligence is involved in 56 percent of product liability workplace cases. *See* ISO "Closed Claim Survey," Report 10, at 81 (1978).

The solution adopted by Section 113 has the support of the Supreme Court of Minnesota in "Lambertson v. Cincinnati Corp.," *supra*. The product manufacturer is allowed limited contribution up to the amount of the worker compensation lien. This reduces the inequity against the product manufacturer, but preserves the employer's interest in not paying more than worker compensation liability. *Compare* "Skinner v. Reed-Prentice Division, Etc.," 70 Ill. 2d 1, 374 N.E.2d 437 (1977)(full contribution allowed).

Admittedly, a shortcoming of Section 113's approach is that it does not reduce transaction costs substantially. *Compare* the approach suggested by the American Insurance Association, "Product Liability Legislative Package," *supra*, at 64. Also, the employer will not necessarily bear a full share of the economic costs of the injury sustained by the claimant. Nevertheless, considering all of the equities involved, Section 113 appears to offer the soundest solution apart from totally modifying worker compensation law to create a sole source remedy.

ANALYSIS

SEC. 114. THE INDIVIDUAL RESPONSIBILITY OF PRODUCT SELLERS OTHER THAN MANUFACTURERS

Section 114, derived in part from Tennessee law, *see* "Ten. Code Ann." § 23-3706 (Supp. 1978), addresses the problem of excessive product liability costs for parties in the distribution chain other than manufacturers in a way that does not compromise incentives for risk prevention. It also leaves the claimaint with a viable defendant whenever he or she has been injured by a defective product.

The ISO "Closed Claim Survey" shows that manufacturers account for 87 percent of the total product liability payment amount, while wholesalers and retailers account for 4.6 percent. *See* ISO "Closed Claim Survey," Report 3, at 35 (1977). Case law suggests that distributors and retailers of products often shift this cost on to the manufacturer through an indemnity suit. *See e.g.*, "Hales v. Monroe," 544 F.2d 331, 332 (8th Cir. 1976); "Anderson v. Somberg," 158 N.J. Super. 384, 386 A.2d 413, 419-20 (1978); "Litton Systems, Inc. v. Shaw's Sales & Serv. Ltd.," 119 Ariz. 10, 579 P.2d 48, 50 (1978).

Despite their relatively small role vis-a-vis manufacturers as product liability defendants, retailers and distributors frequently are brought into a product liability suit. *See, e.g.*, "Tucson Industries, Inc., v. Schwartz," 108 Ariz. 464, 501 P.2d 936 (1976); "Vergott v. Deseret Pharmaceutical Co., Inc.," 463 F.2d 12 (5th Cir. 1972); "Duckworth v. Ford Motor Co.," 320 F.2d 130 (3d Cir. 1963). In view of ISO data showing that for every dollar of claims paid, at least 35 cents is spent in defense costs, *see* ISO, "Closed Claims Survey." Report 14, at 118, the end result is that retailers and distributors are subject to substantial product liability costs, both in terms of premiums and defense costs. These costs are added to the price of products and waste legal resources. *See* "Pender v. Skillcraft Industries, Inc.," 358 So.2d 45 (Fla. App. 1978).

Under Section 114, product sellers other than manufacturers must exercise reasonable care in their handling of products. This obligation includes warning about discoverable hazards. The focus of judicial inquiry will be on the opportunity the product seller (other than a manufacturer) had to discover the hazard and on whether circumstances put the seller on notice as to the character of the product. *See* "Edwards v. E. I. DuPont de Nemours & Co.," 183 F.2d 165, 167 (5th Cir. 1950).

Subsection (a) provides that non-manufacturer product sellers are not subject to liability when they had no reasonable opportunity for product inspection which would or should, in the exercise of the defective condition. For example, if a defective product is in a sealed container and there is no way for a retailer to be aware of the condition, the retailer is not liable. In general, Section 114 does not impose liability on non-manufacturer product sellers where there are defects in construction or defects in design that a reasonable person would have had no opportunity to discover. The manufacturer can avoid many of these defects; the distributor or retailer cannot.

However, a non-manufacturer product seller can waive the benefits of subsection (a) through an express warranty. *Cf.* "Ky. Rev. Stat." § 411.340 (1978). For the purposes of this section, the term manufacturer is defined in Section 102(5).

Subsection (b) addresses the justifiable concern of Justice Traynor in "Vandermark v. Ford Motor Co.," 61 Cal. 2d 256, 37 Cal. Rptr. 896, 899, (1964) that:

> In some cases the retailer may be the only member of that enterprise reasonably available to the injured plaintiff. In other cases the retailer himself may play a substantial part in ensuring that the product is safe or may be in a position to exert pressure on the manufacture to that end.

It should be noted that a number of courts have extended strict liability to retailers. *See, e.g.,* "McKisson v. Sales Affiliates, Inc.," 416 S.W.2d 787 (Tex. 1967); "Houseman v. C. A. Dawson & Co.," 106 Ill. App. 2d 225, 245 N.E.2d 886 (1969). *See also* U.C.C. § 2-315.

If the manufacturer is not subject to service of process or has been judicially declared insolvent, or where a court determines that the claimant would have appreciable difficulty in enforcing a judgment against the product manufacturer, the retailer or distributor has the same strict liability obligations as a manufacturer. Thus, subsection (b) only operates where a member of the enterprise *is* reasonably available to the injured plaintiff.

Some economists may criticize the thrust of Section 114 to the extent that it makes compensation of the victim paramount to the structuring of incentives that would optimize product safety. Another approach is that of a recently enacted Nebraska statute which flatly exempts non-manufacturer product sellers from liability unless they have been negligent. *See* Neb. Legis. Bill No. 665(3)(1978). *See also* "Sam Shainberg Company of Jackson v. Barlow," 258 So.2d 242, 244 (Miss. 1972) (same result under case law). However, the Nebraska approach can leave a person injured by a *defective* product (as defined by Section 104) without compensation. While this would be the unusual case, the law makes clear that in these situations the party who actually sold the product should bear the loss.

From another perspective on incentives for risk prevention, the obligation under Section 114 to make a reasonable examination of the product should ensure that the retailer or distributor will exert pressure on the manufacturer to make the product safe. Also, retailers or distributors can become manufacturers for the purposes of this Act if they design, assemble, fabricate, or otherwise prepare a product or component part of a product prior to sale, as well as if they hold themselves out as the manufacturer. *See* Section 102(5) (Definitions) and accompanying commentary.

Analysis

SEC. 115. SANCTIONS AGAINST THE BRINGING OF FRIVOLOUS CLAIMS AND DEFENSES

The ISO data indicate that a substantial amount of product liaiblity

costs are incurred in the defense of product liability claims and lawsuits. *See* ISO, "Closed Claim Survey," Report No. 14 (1977) (defense costs equal about 35 percent of claim payments. Some have placed the blame for unnecessary defense costs and needless litigation on the contingent fee system. Nevertheless, as the plaintiff's bar properly observes, the contingent fee brings no return to a claimant's attorney where he or she is unsuccessful. On the other hand, some have argued that the contingent fee system has a negative impact in certain product liability cases to the extent that it causes insurers to settle even non-meritorious cases because the cost of defending such cases may be greater than the amount of settlement.

Analysis of the countervailing argumetts suggests that the best solution to reducing unnecessary litigation costs is to address the heart of the problem—in short, discourage frivolous claims and defenses.

Section 115 is based, in part, on § 41 of the "Illinois Civil Practice Act" (as amended, 1976). It is also predicated on a proposal of the California Citizens' Commission on Tort Reform advocating sanctions against "frivolous" claims or defenses. *See* Report of the California Citizens' Commission on Tort Reform, "Righting the Liability Balance," at 146-47, 153-54 (1977).

The underlying purpose of Section 115 has broad support in existing statutes and court rules. Support comes from Rule 11 of the Federal Rules of Civil Procedure, which subjects an attorney to disciplinary action if he or she knowingly files a pleading or defense where no grounds support it. *See* "Barnett v. Laborers's Inter. U. of North America," 75 F.R.D. 544 (W.D. Pa. 1977). Similarly, Federal Rule of Appellate Procedure 38 permits a court to award "just damages and single or double costs" to a party who has been subject to a "frivolous" appeal. Additionally, Federal Rule of Civil Procedure 37(c) provides sanctions for an unreasonable failure to admit averments of fact or the genuineness of documents. In the Federal courts, the above rules are supplemented by 28 "U.S.C." § 1927 (1976) (imposing costs on an attorney who "multiplies the proceedings***). *See* "A.L.R." 3d 209 (1976).

Under subsection (a), the statute may be invoked by either a product liability claimant or seller. Recovery is limited to reasonable attorney's fees and other costs that would not have been been expended but for the fact that the opposing party pursued a claim or defense that was frivolous.

Under subsection (b), to make a finding that the claim was frivolous, the court must make a finding that the claim was without *any* reasonable legal or factual basis. This standard allows full room for bringing claims under novel legal theories.

Subsection (c) provides additional assurances that only frivolous claims will be sanctioned. First, the court may only impose damages under Section 115 on the basis of clear and convincing evidence, not merely the preponderance, of evidence. *See* "State of West Virginia v. Chas. Pfizer & Co.," 440 F.2d 1079, 1092 (2d Cir. 1971). Second, the court must set forth its findings of fact.

Subsection (d) gives the court latitude to impose costs on either attorney or client. As the Task Force Report noted, it is unlikely that many plaintiffs will be financially able to respond to such a claim. Task Force Report, at VII-61. It must be remembered that the attorney is in the best position to make a judgment about the reasonableness of bringing a claim or raising a defense. *See* ABA Code of Professional Responsibility, DR 7-102(A)(1)(2).

Subsection (e) protects a claimant's attorney who has expended time opposing a frivolous *defense*. This section can be invoked even where the claimant has *lost* a case.

Subsection (f) makes clear that recovery under this section is limited to expenses invoked by plaintiff or defendant and not those of parties outside the lawsuit.

ANALYSIS

SEC. 116. ARBITRATION

The Task Force Report suggested that compulsory non-binding arbitration may result in more accurate decisions, reduce overall litigation costs, and expedite the decision process. *See* Task Froce Report, at VII-229-39.

Other reasons offered in support of arbitration procedures in product liability cases include: (1) Cases would be decided more accurately because a small group, with a member who is an expert in the field, should be able to comprehend the esoteric details of product liability cases; (2) Overtime, a resource bank of relatively neutral experts less easily misled (in technical areas) than a jury of laypersons could be developed: (3) Arbitrators should be less affected by the emotional aspects of the case or by the artistry of counsel; and (4) The privacy of arbitration proceedings (as compared to judicial proceedings) should prompt more complete revelation of special manufacturing designs or processes. This, in turn, would permit more accurate judgments. *See* Task Force Report, at VII-235.

The ISO "Closed Claim Survey" suggests further that arbitration should also reduce accident reparation transaction costs. Even allowing for the fact that more substantial product liability claims are litigated to a verdict than are handled by arbitration, ISO data indicate that the average expense for lawyers as well as other allocated loss adjustments costs is considerably less when the case is handled by binding arbitration as compared with a court verdict. *See* ISO "Closed Claim Survey," Report 14, at 120.

On the other hand, costs may increase under arbitration if there are numerous appeals for trials *de novo*. This potential problem may not be as serious, however, as once thought. Data collected by the Department of Justice show that appeal rates at the state level for a trial *de novo* have ranged from 5 to no more than 15 percent of all cases arbitrated. *See* Hearings before the Committee on the Judiciary, Subcommittee on Improvements in Judicial Machinery, United States Senate, 95th Cong., 2d Sess., April 14, 1978. (Statement of Attorney General, Griffin B. Bell). *See also* Report of the California Citizens Commission on Tort reform. "Righting the Liability Bal-

ance," at 143 (1977) citing rejection of arbitration should expedite the reparations process. The Task Force Report showed that in the medical malpractice area, for example, the arbitration process had achieved a more expeditious resolution of claims than those operating under the jury system. *See* Task Force Report, at VII-238.

Indeed, the benefits of arbitration have prompted the Department of Justice to recommend that mandatory non-binding arbitration be used in federal courts in all tort and contract cases. The Department of Justice reached this conclusion after its Office of Judicial Improvements made a thorough analysis of the matter in a study conducted wholly independently of the Task Force Report. These concurrent efforts appear to have reached the same conclusion.

Section 1-6 draws on portions of the Department of Justice's proposed bill on mandatory, non-binding arbitration, *see* S. 2253, 95th Cong. 1st Sess.; H.R. 9778, 95th Cong., 1st Sess., the Statement of Attorney General Griffin B. Bell, *supra,* as well as state legislation on the topic of arbitration.

(a) *Applicability.* The Act provides for mandatory arbitration where the amount in dispute is less than $30,000, exclusive of interest and cost. While the figure is $20,000 less than the Department of Justice Bill's $50,000 level, it should cover the bulk of product liability claims. In that regard, the ISO closed claim data, trended for severity, show that the average paid claim in bodily injury cases is $26,004. While some have suggested limiting arbitration to smaller claims, it is the larger claims that have been the greater cost items in product liability cases, *See* ISO, "Closed Claim Survey," at 113.

While there has been no state experience with cases at the $30,000 level, Attorney General Bell has noted that when Pennsylvania increased the jurisdictional amount for the state's arbitration program from $3,000 to $10,000, there was no increase in the appeal rate. *See* Statement of Attorney General Griffin B. Bell, *supra.*

It seems relatively certain that an arbitration procedure will help expedite and reduce costs connected with smaller claims. ISO closed claim data show that the large majority of product liability payments are relatively small (more than two-thirds are under $1,000—even when trended for severity). *See* ISO, "Closed Claim Survey," at 113.

(b) *Rules Governing.* Subsection (1) indicates that arbitrators should apply the product liability substantive law rules of this Act. Where the Act does not provide a rule of decision, relevant state law would be applied.

Subsection (2) indicates that where a procedure is not covered, *e.g.*, when a court can vacate a judgment, the Uniform Arbitration Act (UAA) (enacted in a number of states) is to be used as a resource.

The Act also permits the state to designate an alternative source of rules in subsection (3).

(c) *Arbitrators.* The rules provide latitude for the parties to select a single arbitrator. Otherwise, the arbitration is to be conducted by three persons, one who is a lawyer or retired judge, one who has expertise in the subject matter area that is in dispute, and one who is a layperson. This provision differs

slightly from the Department of Justice proposal in light of the needs of product liability. Having an individual who is familiar with the esoteric nature of the subject matter involved will help expedite the case and serve as a deterrent to the presentation of biased expert testimony. In addition, this subsection provides for a layperson to be included to help assure that the consumer perspective regarding product safety is represented. The process of selecting a layperson may be complicated, but is is suggested that either normal jury rolls be utilized or a list of laypersons be compiled for this purpose.

Aside from general guidelines regarding fairness and lack of bias, the Act does not outline the method of choosing arbitrators, but leaves that matter to the individual states. A state can help implement the general guidelines by requiring each arbitration panel candidate to disclose any personal acquaintance with the parties or their counsel and allow a *voir dire* examination. *see* Mich. "Comp. Laws Ann." § 600.5045(1) (2) (Supp. 1978). Some of the better procedures include:

(1) Having the American Arbitration Association select a pool of candidates according to its established selection procedures. Each party is allowed to reject certain candidates and rate the remainder in order of preference. Additional provisions take effect if this procedure fails to produce a panel. *See* "Mich. Comp. Laws Ann." § 600.5044(4)(5) (Supp. 1978);

(2) Having the court appoint arbitrators. "Mass. Gen. Laws Ann." ch. 231, § 60B (1978).

(3) Having an arbitration administrator appoint arbitrators. "Wis. Stat. Ann." § 655.02 (1978).

(4) Having the parties and court combine to appoint arbitrators. "Neb. Rev. Stat." § 44-2840, 2841 (1976); "Ohio Rev. Code Ann." § 21(A) (1977).

(d) *Arbitrators' Powers.* These provisions are taken from the Department of Justice proposal on arbitration. They grant the arbitrators jurisdiction and also give them powers of subpoena.

(e) *Commencement.* This provision is also derived from the Department of Justice proposal. Its purpose is to help expedite the proceeding. The Act contains a slight modification of the Justice proposal in order to allow an extension for "good cause shown." This seems appropriate in light of the fact that some product liability cases are very complex. *Cf.* "Ariz. Rev. Stat. Ann." § 12-567(C) (Supp. 1978)(medical malpractice).

(f) *Evidence.* One method of expediting the process is to use informal means of proof. Nevertheless, some guidelines are needed. The Act follows the department of Justice proposal in referring to the Federal Rules of Evidence as general guidelines. Strict adherence to rules of evidence is not required. *See* "Ariz. Rev. Stat. Ann." § 12-567-(D) (Supp. 1978).

(g) *Transcript of Proceeding.* With respect to the provision of a transcript of proceeding, the Act generally follows the Department of Justice draft.

(h) *Arbitration Award and Judgment.* The Act follows the Department of Justice proposal provisions on award and judgment. The parties may request a trial *de novo* on issues of law or fact. If they do not so request in a

timely manner, the action is at an end—there is no appeal.

(i) *Trial De Novo.* The Act follows the Department of Justice proposal provisions on trial *de novo.* Additional guidance on this topic may be found in the Uniform Arbitration Act § 8-131. The Act excludes evidence about the existence of a prior arbitration proceeding, the nature or amount of the award, and matters concerning the conduct of the arbitration (with the exception of the admissson of testimony for impeachment purposes) at the trial *de novo.* A number of state medical manpractice arbitration statutes have taken the opposite view, *i.e.,* they admit the results of the arbitration proceeding on the premise that this will be a deterrent against persons seeking retrials of the proceeding. *See, e.g.,* "Ariz. Rev. Stat. Ann." § 12-567(M) (Supp. 1978); "Mass. Gen. Laws Ann." ch. 231 § 60B (Supp. 1978). *Cf.* "Wis. Stat. Ann." § 655 19(2) (1978) (excluding findings and order of arbitration panel). *See also* Volume VI, "Legal Study," at 155-56.

The approach of Section 116 would appear to be in accord with the Federal Constitution. *Cf.* "ExParte Peterson," 253 U.S. 300, 309 (1920). Moreover, with the exception of two Ohio lower court decisions, state courts have upheld the constitutionality of provisions that do admit panel findings before the jury. *See* "Eastin v. Broomfield." 116 Ariz. 576, 570 P.2d 744, 750 (1977); "Attorney General v. Johnson," 282 Md. 168, 385 A.2d 57, 67-68 (1978); "Paro v. Longwood Hospital," 369 N.E.2d 985 (Mass. 1977); "Prendegast v. Nelson," 199 Neb. 97, 256 N.W.2d 657 (1977); "State ex rel. Strykowski, v. Wilkie," 81 Wis.2d 491, 261 N.W.2d 434 (1978). *Contra* "Simon v. St. Elizabeth Medical Center," 3 Ohio Op. 3d 164, 355 N.E.2d 903, 907-909 (C.P. 1976); "Graley v. Satayatham," 74 Ohio Op.2d 316, 343 N.E.2d 832 (C.P. 1976). *See generally,* Redish, "Legislative Response to the Medical Malpractice Insurance Crisis: Constitutional Implications," 55 "Tex. L. Rev." 759, 793 (1977); Lenore, "Mandatory Medical Malpractice Mediation Panels—A Constitutional Examination," 44 "Ins. Counsel J." 416, 422 (1977).

Nevertheless, a jury may have difficulty evaluating the conclusions of another fact finder where the jury was not privy to the prior fact finder's qualifications and mode of operation. Even if these matters could be explained to the jury, it might get sidetracked from the actual evidence in the case. *See* the observations of Judge Hinton in a classic comment, 27 "Ill. L. Rev." 195 (1932); 18 "A.L.R." 2d 1287 (1951). *But see* Federal Rule of Evidence 803 (22) (admitting felony convictions in a cognate civil case). For these reasons, the Act has followed the Department of Justice proposal on the issue.

Section 116(i)(iv)(aa) chooses an alternative deterrent against ill-considered appeals for trials *de novo* that does not interfere with the trial *de novo,* if a party fails to obtain a judgment more favorable than the arbitration award, the court will assess the cost of the arbitration proceeding, including the amount of arbitration fees, plus interest, against that party.

In light of the fact that the present product liability system has created serious problems and the fact that compulsory binding arbitration has the potential for dealing with some of those problems, this slight incentive for

retaining a sound arbitration award should not run afoul of constitutions in most states. *See* Task Force Report, at VII-233. The Act does not enumerate grounds upon which a court may vacate an arbitration award. Guidance on this issue may be obtained from section 12 of the Uniform Arbitration Act.

ANALYSIS

SEC. 117. EXPERT TESTIMONY

In General. The Task Force's "Legal Study" demonstrated that product liability cases often are compromised because of the lack of standards with regard to selecting and presenting expert testimony *See* Volume IV, "Legal Study," *supra* at 153-155. One part of the problem is the biased expert: another is the unqualified expert.

Even if experts are properly qualified and objective, a jury of laypersons is often in a poor position to determine which expert is correct. For this reason, this Act gives the court power to make greater use of pre-trial arbitration where an unbiased, qualified expert will serve on the panel. *See* Section 116. Where arbitration is not used, however, this section should promote the goal of presenting objectives and sound expert testimony to the jury.

(a) *Appointment of Experts.* Subsection (a) is based on Rule 706 of the Federal Rules of Evidence and similar state rules. It indicates that courts have the power to appoint experts on their own authority. A number of courts have utilized this power even without the benefit of Federal Rule of Evidence 706 or a similar state rule. *See* 95 "A.L.R." 2d 390 (1964). As the Task Force Report noted, the presence of a court-appointed expert "has a cautionary impact on the expert for hire whose theories at trial are subject to dispute not only by an adversary expert, but also by a neutral-court-appointed one." Task Force Report, at VII-43, citing, Mitchell, "The Proposed Federal Rules of Evidence: How They Affect Product Liability Practice," 12 "Duquesne L. Rev." 551, 557-58 (1974). *See also* 2 J. Wigmore, "Evidence" § 563, at 648 (3d ed. 1940) ("*** this expedient would remove most *** abuses").

One problem with court-appointed experts is that the trier of fact may give them an aura of infallibility they do not deserve. Under Section 117, this possibility is diminished because the experts are subject to cross-examination by *both* parties. Also, the section allows the court in its descretion to decline to disclose to the jury that the expert witness is, in fact, court-appointed.

(b) *Compensation.* Under Federal Rule of Evidence 706 and similar state rules, compensation of experts is left to the judge's discretion. This subsection goes a step further and provides two guidelines for compensating experts. Both guidelines should serve as an added inducement for attorneys to present objective expert testimony. The guidelines suggest that the court may impose the cost of the court-appointed expert on losing parties as well as on parties the court finds have been wrong in their estimation of damages.

(c) *Disclosure of Appointment.* This section follows Federal Rules of Evidence 706. In most instances, it is important for the trier of fact to appreciate that the witness is court-appointed. However, circumstances may arise

where the court believes that disclosure of that fact will give the witness too much credence with the jury. Therefore, the court has discretion to withhold the information when it is appropriate to do so.

(d) *Parties' Experts of Own Selection.* This section also allows Federal Rule of Evidence 706. Precluding the parties from introducing their own experts would best too much power in court-appointed experts.

(e) *Pre-Trial Evaluation of Experts.* A rule authorizing a court-appointed expert does not, in and of itself, provide guidance about who is properly qualified to testify in product liability cases. There are many approaches to that issue. One approach, used in some medical malpractice statutes, would require that an expert witness "spend a substantial portion of his professional time in the actual practice of his area of expertise. This was not followed because a person may be well-versed in technical product liability matters even if he does devote substantial time to testifying in cases. *See* Task Force Report, at VII-44. Unfortunately, it is impractical to utilize a "standard test" for all experts in product liability cases. *See* Donaher, Pichler, Twerski, and Weinstein, "The Technological Expert in Products Liability Litigation," 52 "Tex. L. Rev." 1303, 1325 (1974).

(1) *Need for Pre-Trial Evaluation.* It is not necessary or cost-efficient to utilize the procedure outlined by Donaher *et. al., supra.* in *all* cases. This rule gives some guidance to the trial court in deciding whether to conduct a pre-trial hearing on the qualifications of expert witneses. It is appropriate to do so in more complex cases and also where the pre-trial hearing would serve as a deterrent to the presentation of witnesses who were not qualified. Either party may bring this matter before the court by motion.

(2) *Factors in Evaluation.* The factors in evaluation are drawn from Donaher *et. al., supra.*

The court should inquire into the expert witness' background and skills and determine whether they are appropriate for the purpose of the case. The court should not only examine the witness' formal education, but also whether he or she had undertaken specific preparation for the litigation before the court. Finally, the court should examine a witness for bias. A witness with marginal expert skills, but who also had a strong bias should be considered unqualified.

(3) *Findings of Fact.* If it seems clear to the court that the expert's background and experience do not qualify the expert to testify, it should state this conclusion in its findings of fact under section (h).

ANALYSIS

SEC. 118. NON-PECUNIARY DAMAGES

Non-pecuniary damages include awards for pain and mental suffering. They are to be contrasted with pecuniary damages which compensate victims for lost wages, medical costs, and other expenditures brought about by a product-related accident.

According to the ISO Closed Claim Survey, 70 percent of claims clssed

with payment include amounts in addition to a claimant's pecuniary loss. *See* ISO, "Closed Claim Survey," at 54 (1978). Moreover, the average amount of payment above pecuniary loss increases significantly in the higher payment ranges. *Id.*, at 54-55. A most important reason for the difficulty in setting product liability rates is the "open-endedness" of damages for pain and suffering. *See* Task Force Report, a VII-64-65.

The Task Force Report suggested that limits on awards for pain and suffering "would reduce uncertainty and thereby mitigate the 'apprehension factor' that has contributed to the rise in product liability insurance rates." *Id.*, at VII-65. Nevertheless, such awards have deep historical roots and should not be limited in a manner that unreasonably curtails the rights of injured parties.

Section 118 addresses each of the major rationales offered in support of award for non-pecuniary damages. First, in proposing to limit such awards, this section implicitly takes the position that the common law rationale for pain and suffering awards generally does not apply under this Act. The award for non-pecuniary damages arose in early common law cases as a substitute for an injured plaintiff seeking personal "vengeful retaliation." *See* Task Force Report, *Id.* In those cases, the defendant usually committed an intentional wrong. This rationale has little application to cases arising under strict product liability. Under this Act, a manufacturer is liable for harm caused by products found to be defective in construction regardless of fault. In cases of harm caused by products found to be defective in design or defective because of the absence of adequate warnings, the trier of fact must consider more sophisticated matters than whether the defendant "acted as a reasonable person under all the circumstances"—the general negligence standard.

A second rationale to support awarding damages for pain and suffering is that they have an important deterrent function. The Task Force Report found evidence tha the general product liability problem caused manufacturers to devote more attention to product liability loss prevention techniques. *See* Task Force Report, at VI-50. Section 117 retains this deterrent function while placing some reasonable limits on awards for pain and suffering.

A third rationale, supported by members of the plaintiff's bar and some economic legal scholars, is that awards for pain and suffering are a reasonable attempt to provide some compensation for the serious discomfort that a plaintiff endures. *See* R. Prosner, "Economic Analysis of the Law," 82 (1972). Other studies have questioned whether monetary awards for pain and suffering do anything to alleviate the symptoms they are alleged to address. *See* J. O'Connell and R. Simon, "Payment for Pain & Suffering" (1972); Peck, "Compensation for Pain: A Reappraisal in Light of New Medical Evidence," 72 "Mich. L. Rev." 1355 (1974). Section 117 ahderes to the former assumption to this degree: When a claiment has suffered permanent serious disfigurement or serious mental illness, the amount of damages for pain and suffering are left to the sound discretion of the trier of fact with appropriate review by the court in cases of abuse of that discretion.

However, where the claimant has not suffered permanent serious disfigurement or permanent mental illness as a result of the product-related harm, damages for pain and suffering are limited to $25,000.

An ample body of case law in the area of worker compensation and more recently automobile injury reparation statutes serve as guidance for courts in determining "permanent serious disfigurements." *See, e.g.,* "Falcone v. Branker," 135 N.J. Super. 137, 342 A.2 875 (1975) (collecting cases). That term has been held to provide a sufficient basis for legal interpretation. *See* "In Re Requests of Governor and Senate, Etc.," 389 Mich. 411, 208 N.W.2d 469, 480 (1973).

Courts also have defined and explained the term "mental illness" in a number of contexts. *See* "Carroll v. Cobb," 139 N.J. Super. 439, 354 A.2d 355 (1976)(voter registration requirements); "Sachs v. Commercial Insurance Co. of Newark, N.J." 119 N.J. Super. 226, 290 A.2d 760 (1972) (insurance policy); "In re Humphrey," 236 N.C. 141, 71 S.E.2d 915 (1952)(incompetency proceedings); "Commonwealth v. Moon," 383 Pa. 18, 117 A.2d 96 (1955) (committal proceedings); "Interstate Life & Accident Insurance Co. v. Houston," 50 Tenn. App. 172, 360 S.W.2d 71 (1962) (insanity exclusion provision).

Objections to limits on awards for non-pecuniary damages take several forms: One is that such limits may violate due process or equal protection clauses of some state constitutions. *Cf.* "Wright v. Central DuPage Hosp. Assoc.," 63 Ill. 2d 313, 347 N.E.2d 736, 743 (1976) (restriction of amount of general damages in medical malpractice); "Graley v. Satayatham," 74 Ohio Op. 2d 316, 343 N.E.2d 832, 836 (C.P. 1976) (requiring list of collateral source benefits in medical malpractice). Another is state consitutional prohibitions on damage limitations. *See, e.g.,* "Ariz. Rev. Stat. Ann.," Const. Art. 18, § 6 (1956); "Ky. Rev. Stat. Ann.," Const. § 54 (1963); "Penn. Stat. Ann.," Const. Art. 3, § 18 (1969). An argument that § 117 does not violate such prohibitions is that a strict product liability cause of action did not exist at the time the constitution was adopted and is theefore exempt from its interdictions. *See* "Rail N Ranch Corp. v. State," 7 Ariz. App. 558, 441 P.2d 786, 788 (1968).

These objections notwithstanding, Section 118 can be supported by three basic rationales. First, the common law reason for the rule does not support the application of damages for pain and suffering in strict liability cases. Second, the common law rule will continue to operate where injuries are serious. *Cf.* "Rybeck v. Rybeck," 141 N.J. Super. 481, 358 A.2d 828, 836 (1976), *appeal dism'd,* 150 N.J. Super, 151, 375 A.2d 269 (1977)(limited court access for pain and suffering in no-fault—"the law is permitted to treat large problems differently from small problems if there is a rational basis for the difference"). Finally, some ceiling or limit on damages for pain and suffering will reduce uncertainty in one of the greatest liability insurance rate-making problem areas.

ANALYSIS

SEC. 119. THE COLLATERAL SOURCE RULE

The collateral source rule is a principle of tort law under which the defendant is not permitted to take "credit" for any money that an injured plaintiff received from another (collateral) source. The rule embraces both payments for loss of wages and medical expenditures.

The rule may permit double recovery by the plaintiff and also increase transaction costs. Section 119 recognizes these possibilities and provides for a limited modification of the collateral source rule where the claimant has received compensation for the same damages from a public source. Its approach is similar to that followed in medical malpractice by the states of Tennessee and Pennsylvania. *See* Task Force, "Legal Study," Vol. V, at 146.

There are two significant arguments against proposals to modify the existing rule. The first is that the "wrongdoer" should not have the benefit of a windfall. Proponents contend that it is better that the plaintiff have the benefit of a windfall than the defendant.

This argument can be rebutted in the context of product liability. Under Section 104 of this Act and the law of most states, product sellers may be held responsible for damages on a strict liability basis not merely because the defendant has engaged in negligent or intentionally wrongful conduct. Therefore, a selective modification of the collateral source rule in the context of product liability, as compared with medical malpractice, may be justified. *Cf.* "Graley v. Satayatham," 74 Ohio Op. 2d 316, 343 N.E.2d 832 (C. P. 1976); "Simon v. St. Elizabeth Medical Center," 3 Ohio Op. 3d 164, 355 N. E. 2d 903 (C. P. 1976) (holding unconstitutional selective abolition in medical malpractice context). Other sates, however, have upheld such selective abolition, or modification. *See* "Eastin v. Broomfield," 116 Ariz. 576, 570 P.2d 744, 751-752 (1977).

The second argument against modifying the collateral source rule is that a manufacturer should not be permitted to "externalize" the cost of an injury caused by its products. This argument is very strong where the injured plaintiff has purchased health and accident coverage. In that instance, the defendant product seller should not be able to benefit from the claimant's prior prudence. Nevertheless, some proposals have modified the rule in that situation. *See* "Neb. Rev. Sta." § 44-2819 (Supp. 1976); "Prendergast v. Nelson," 190 Neb. 97, 256 N.W.2d 657, 669 (1977); National Product Liability Council, "Proposed Uniform State Product Liability Act," § 207 (undated). *See also* Comment, "An Analysis of State Legislative Responses to the Medical Malpractice Crisis," 1975 "Duke L. J." 1417, 1447-59.

On the other hand, where the claimant has received damages from a public source, the argument is less persuasive. The benefits received were not through the claimant's pre-accident financial planning or made a part or one's remuneration from employment; rather they were derived from public tax funds that accumulated in part by contributions from the product seller. Since the product seller would be able to distribute the same cost again

among consumers through product pricing, the public may be subjected to excessive costs.

A probable effect of Section 119 will be to reduce double expenditures in the context of medical costs. The ISO "Closed Claim Survey" suggests that medical costs represent approximately 19.7 percent of product liability claims. *See* ISO, "Closed Claim Survey," at 57 (1977). Nevertheless, the cost savings generated by this section probably will be modest. The ISO closed claim data, which were quite limited on this point, show that approximately 6.4 percent of claimants have been reimbursed by public collateral sources. *See* ISO, "Closed Claim Survey," at 181 (1977). Collateral sources paid for 19.8 percent of the claims in those cases. (This closely parallels the general percentage of medical benefits.) Although generating only modest savings, Section 119 should help reduce overall insurance costs. Liability insurers should take this matter into account when the formulate rates and premiums.

Section 119 also takes account of existing legislation that may authorize subrogation by public collateral sources. In order to reduce transaction costs and duplicative distribution costs, this section precludes subrogation.

Finally, Section 119 does not alter existing law that prohibits the defendant from introducing in evidence the fact that the plaintiff has been indemnified by a collateral source. That approach was rejected because it would leave the trier of fact in the role of balancing the delicate policy elements that surround proposals calling for abolition of the collateral source rule. Also, that approach would reduce the potential benefit of collateral source rule modifications in that it would increase transaction costs and lower predictability and consistency in the allocation of collateral benefits. *See* Task Force Report, at VII-74-75. *Cf.* Defense Research Institute, "Products Liability Position Paper," at 44-45 (1976) (advocating modification of evidentiary rules to allow trier of fact to consider all collateral benefits).

ANALYSIS

SEC. 120 PUNITIVE DAMAGES

Some product sellers and others have called for the abolition of punitive damages on the ground that they serve no proper "tort law" purpose, *see* Proposed Uniform State Product Liability Act § 206 (National Product Liability Council) (undated); *see generally* the Defense Research Institute Monograph, "The Case Against Punitive Damages" (1969) (marshalling arguments) and at least one court has accepted these arguments in the area of product liability. *See* "Walbrun v. Berkel, Inc.," 433 F. Supp. 384-85 (E.D. Wis. 1976); "Roginsky v. Richardson-Merrell, Inc.," 378 F.2d 832 (2d Cir. 1967) (dictum).

Nevertheless, as Section 120 acknowledges, punitive damages serve an important function in deterring product sellers from producing, distributing, or selling dangerous products. *See* "Toole v. Richardson-Merrell, Inc.," 251 Cal. App. 2d 630, 60 Cal. Rptr. 398 (1967); "Gillham v. Admiral Corp.," 523 F.2d 102 (6th Cir. 1975). At the same time, this section recognizes and ad-

dresses problems that the concept has caused in the context of product liability.

While many product sellers have expressed great concern about the economic impact of punitive damages, the ISO Closed Claim Survey suggests that the number of cases in which such damages are imposed is insubstantial. *See* ISO, "Closed Claim Survey," at 183 (1977). Nevertheless, concern about punitive damages has caused some insurers to decline insurance coverage for these damages. Also, a number of states and some insurers have declined to do so for the policy reason that a product seller should not be permitted to pass this cost on to an insurer. Transcending all concerns is the total lack of structure surrounding punitive damages.

Subsection (a) addresses a basic argument against putitive damages, namely that they apply a criminal law sanction to a civil law case. The defendant does not have the benefit of constitutional protections that would be available to him under the criminal law. Section 120(a) moves away from the ordinary "preponderance of evidence" test of civil cases and toward the criminal standard, but does not turn completely to a pure criminal law standard of proof "beyond a reasonable doubt." Instead, the Act requires the plaintiff to show by "clear and convincing" evidence that punitive damages are justified. *See* Section 102(7) (Definitions).

Section 120(a) also requires that the claimant show that the product seller's conduct demonstrated reckless disregard for the safety of others. By "reckless disregard" the provision means a conscious indifference to the safety of persons who might be injured by the product, the traditional barrier that the plaintiff must cross in order to obtain punitive damages. *See* W. Prosser, "Torts," at 9-10 (4th Ed. 1971). The reckless disregard standard is identified in statutory form to avoid any possible misinterpretation of this basic area of law—it should be clear that a product seller does *not* have to pay punitive damages under ordinary strict liability or negligence standards.

Subsection (b) follows the current common law system in allowing the jury to determine in its discretion whether punitive damages should be awarded. *See* Prosser, "Torts," *supra*, at 9. On the other hand, this subsection draws upon a newly enacted Minnesota statute (Minn. Stat Ann. 549.21 (1978)) in having the court, rather than the jury, determine the amount of those damages. This approach is in accord with the general pattern of the criminal law where the jury determines "guilt or innocence" and the court imposes sentence. This is particularly appropriate in product liability cases where, under current law, product sellers are potentially subject to repeated imposition of punitive damages for harm caused by a particular product.

Subsection (b) provides guidelines for the court to determine the amount of punitive damages. The guidelines offered are based on "Minn. Stat. Ann." 549.21(3) (1978). The drafters of that statute relied on a very thorough analysis of product liability and punitive damages. *See* Owen, "Punitive Damages in Products Liability Litigation," 74 "Mich. L. REv." 1257, 1299-1319 (1976).

Factors (1) and (2) are self-evident. If the facts show that the product seller actually was aware of the specific hazard *and* its seriousness, *and* mar-

keted it anyway, a higher award is in order.

Factor (3), profitability, recognizes that punitive damages may be used to directly attack the profit incentive that generated the misconduct.

Factor (4) is important regardless of the basic requirement that the product seller must have reckless disregard for the safety of others. If the product seller consciously concealed its activities, this augurs for a higher award.

Factor (5) acknowledges that a product seller who was reckless in producing the product, but who acted quickly to remove the product from the market upon discovery of the hazard, should not be subject to as harsh a sanction as one who failed to act. Some have suggested that punitive damages should be awarded only where corporate management has either authorized, participated in, or ratified conduct that shows a conscious or reckless disregard for public safety. *See* Task Force Report, at VII-79. Section 120 rejects that approach because it could foster legal disputes as to whether an individual stood "high enough" in the corporate structure to cause that individual to bear responsibility for punitive damages. Nevertheless, in circumstances where a non-management employee caused the harm and management acted quickly to undo that harm once it was discovered, a lower award may be appropriate.

Factor (6) is traditional under the common law. It is one that has been subject to criticism from product sellers and economists. Nevertheless, in light of the fact that deterrence of wrongful conduct is the principal reason behind punitive damages, it is appropriate to consider the impact an award will have on a particular product seller.

Factor (7) is more important in product liability cases than in others because it addresses the problem of multiple exposure to punitive damages. This factor directs the court to consider both criminal and civil liability to which the product seller has been or may be subjected.

This Act takes the position that the award of punitive damages should go to the claimant and not the state. While the argument that since the damages are non-compensatory they should go to the state has some merit the approach was rejected because of constitutional problems and the fact that it might place a claimant's attorney in a potential conflict of interest situation (is he trying the case for hs client or the state?). *See* Task Force Report at VII-79.

APPENDIX B

European Convention on Products Liability in Regard to Personal Injury and Death

The member States of the Council of Europe, signatory hereto,

Considering that the aim of the Council of Europe is to achieve a greater unity between its Members;

Considering the development of case law in the majority of member States extending liability of producers prompted by a desire to protect consumers taking into account the new production techniques and marketing and sales methods;

Desiring to ensure better protection of the public and, at the same time, to take producers' legitimate interests into account;

Considering that priority should be given to compensation for personal injury and death;

Aware of the importance of introducing special rules on the liability of producers at European level.

Have agreed as follows:

Article 1

1. Each Contracting State shall make its national law conform with the provisions of this Convention not later than the date of the entry into force of the Convention in respect of that State.

2. Each Contracting State shall communicate to the Secretary General of the Council of Europe, not later than the date of the entry into force of the Convention in respect of that State, any text adopted or a statement of the contents of the existing law which it relies on to implement the Convention.

Article 2

For the purpose of this Convention:

a) the term "product" indicates all movables, natural or industrial, whether raw or manufactured, even though incorporated into another movable or into an immovable;

b) the term "producer" indicates the manufacturers of finished products or of component parts and the producers of natural products;

c) a product has a "defect" when it does not provide the safety which a person is entitled to expect, having regard to all the circumstances including the presentation of the product;

d) a product has been "put into circulation" when the producer has delivered it to another person.

Article 3

1. The producer shall be liable to pay compensation for death or personal injuries caused by a defect in his product.

2. Any person who has imported a product for putting it into circulation in the course of a business and any person who has presented a product as his product by causing his name, trademark or other distinguishing feature to appear on the product, shall be deemed to be producers for the purpose of this Convention and shall be liable as such.

3. When the product does not indicate the identity of any of the persons liable under paragraphs 1 and 2 of this Article, each supplier shall be deemed to be a producer for the purpose of this Convention and liable as such, unless he discloses, within reasonable time, at the request of the claimant, the identity of the producer or of the person who supplied him with the product. The same shall apply, in the case of an imported product, if this product does not indicate the identity of the importer referred to in paragraph 2, even if the name of the producer is indicated.

4. In the case of damage caused by a defect in a product incorporated into another product, the producer of the incorporated product and the producer incorporating that product shall be liable.

5. Where several persons are liable under this Convention for the same damage, each shall be liable in full (in solidum).

Article 4

1. If the injured person or the person entitled to claim compensation has by his own fault contributed to the damage, the compensation may be reduced or disallowed having regard to all the circumstances.

2. The same shall apply if a person, for whom the injured person or the person entitled to claim compensation is responsible under national law, has contributed to the damage by his fault.

Article 5

1. A producer shall not be liable under this Convention if he proves:

a) that the product has not been put into circulation by him; or

b) that, having regard to the circumstances, it is probable that the defect which caused the damage did not exist at the time when the product was put into circulation by him or that this defect came into being afterwards; or

c) that the product was neither manufactured for sale, hire or any other form of distribution for the economic purposes of the producer nor manufactured or distributed in the course of his business.

2. The liability of a producer shall not be reduced when the damage is caused both by a defect in the product and by the act or omission of a third party.

Article 6

Proceedings for the recovery of the damages shall be subject to a limitation period of three years from the day the claimant became aware of should reasonably have been aware of the damage, the defect and the identity of the producer.

Article 7

The right to compensation under this Convention against a producer shall be extinguished if an action is not brought within ten years from the date on which the producer put into circulation the individual product which caused the damage.

Article 8

The liability of the producer under this Convention cannot be excluded or limited by any exemption or exoneration clause.

Article 9

This Convention shall not apply to:

a) the liability of producers inter se and their rights of recourse against third parties;

b) nuclear damage.

Article 10

Contracting States shall not adopt rules derogating from this Convention, even if these rules are more favorable to the victim.

Article 11

States may replace the liability of the producer, in a principal or subsidiary way, wholly or in part, in a general way, or for certain risks only by the liability of a guarantee fund or other form of collective guarantee, provided that the

victim shall receive protection at least equivalent to the protection he would have had under the liability scheme provided for by this Convention.

Article 12

This Convention shall not affect any rights which a person suffering damage may have according to the ordinary rules of the law of contractual and extra-contractual liability including any rules concerning the duties of a seller who sells goods in the course of his business.

Article 13

1. This Convention shall be open to signature by the member States of the Council of Europe. It shall be subject to ratification, acceptance or approval. Instruments of ratification, acceptance or approval shall be deposited with the Secretary General of the Council of Europe.

2. This Convention shall enter into force on the first day of the month following the expiration of a period of six months after the date of deposit of the third instrument of ratification, acceptance or approval.

3. In respect of a signatory State ratifying, accepting or approving subsequently, the Convention shall come into force on the first day of the month following the expiration of a period of six months after the date of the deposit of its instrument of ratification, acceptance or approval.

Article 14

1. After the entry into force of this Convention the Committee of Ministers of the Council of Europe may invite any non-member State to accede thereto.

2. Such accession shall be effected by depositing with the Secretary General of the Council of Europe an instrument of accession which shall take effect on the first day of the month following the expiration of a period of six months after the date of its deposit.

Article 15

1. Any State may, at the time of signature or when depositing its instrument of ratification, acceptance, approval or accession, specify the territory or territories to which this Convention shall apply.

2. Any State may when depositing its instrument of ratification, acceptance, approval or accession or at any later date, by declaration addressed to the Secretary General of the Council of Europe, extend this Convention to any other

territory or territories specified in the declaration and for whose international relations it is responsible or on whose behalf it is authorized to give undertakings.

3. Any declaration made in pursuance of the preceding paragraph may, in respect of any territory mentioned in such declaration, be withdrawn by means of a notification addressed to the Secretary General of the Council of Europe. Such withdrawal shall take effect on the first day of the month following the expiration of a period of six months after the date of receipt by the Secretary General of the Council of Europe of the declaration of withdrawal.

Article 16

1. Any State may, at the time of signature or when depositing its instrument of ratification, acceptance, approval or accession, or at any later date, by notification addressed to the Secretary General of the Council of Europe, declare that, in pursuance of an international agreement to which it is a Party it will not consider imports from one or more specified States also Parties to that agreement as imports for the purpose of paragraphs 2 and 3 of Article 3; in this case the person importing the product into any of these States from another State shall be deemed to be an importer for all the States Parties to this agreement.

2. Any declaration made in pursuance of the preceding paragraph may be withdrawn by means of a notification addressed to the Secretary General of the Council of Europe. Such withdrawal shall take effect the first day of the month following the expiration of a period of one month after the date of receipt by the Secretary General of the Council of Europe of the declaration of withdrawal.

Article 17

1. No reservation shall be made to the provisions of this Convention except those mentioned in the Annex to this Convention.

2. The Contracting State which had made one of the reservations mentioned in the Annex to this Convention may withdraw it by means of a declaration addressed to the Secretary General of the Council of Europe which shall become effective the first day of the month following the expiration of a period of one month after the date of its receipt by the Secretary General.

Article 18

1. Any Contracting State may in so far as it is concerned, denounce this Convention by means of a notification addressed to the Secretary General of the Council of Europe.

2. Such denunciation shall take effect on the first day of the month following the expiration of a period of six months after the date of receipt by the Secretary General of such notification.

Article 19

The Secretary General of the Council of Europe shall notify the member States of the Council and any State which had acceded to this Convention of:

a) any signature;
b) any deposit of an instrument of ratification, acceptance, approval or accession;
c) any date of entry into force of this Convention in accordance with Article 13 thereof;
d) any reservation made in pursuance of the provisions of Article 17, paragraph 1;
e) withdrawal of any reservation carried out in pursuance of the provisions of Article 17, paragraph 2;
f) any communication or notification received in pursuance of the provisions of Article 1, paragraph 2, Article 15, paragraphs 2 and 3 and Article 16, paragraphs 1 and 2;
g) any notification received in pursuance of the provisions of Article 18 and the date on which denunciation takes effect.

Appendix

Each State may declare, at the moment of signature or at the moment of the deposit of its instrument of ratification, acceptance, approval or accession, that it reserves the right:

1. to apply its ordinary law, in place of the provisions of Article 4, in so far as such law provides that compensation may be reduced or disallowed only in case of gross negligence or intentional conduct by the injured person or the person entitled to claim compensation;

2. to limit, by provisions of its national law, the amount of compensation to be paid by a producer under this national law in compliance with the present Convention. However, this limit shall not be less than:

a) the sum in national currency corresponding to 70,000 Special Drawing Rights as defined by the International Monetary Fund at the time of the ratification, for each deceased person or person suffering personal injury
b) the sum in national currency corresponding to 10 million Special Drawing Rights as defined by the International Monetary Fund at the time of ratification, for all damage caused by identical products having the same defect.

3. to exclude the retailer of primary agricultural products from liability under the terms of paragraph 3 of Article 3 providing he discloses to the claimant all information in his possession concerning the identity of the persons mentioned in Article 3.

APPENDIX C

Convention of the Law Applicable to Products Liability

The States signatory to the present Convention

Desiring to establish common provisions on the law applicable, in international cases, to products liability,

Have resolved to conclude a Convention to this effect and have agreed upon the following provisions-

Article 1

This Convention shall determine the law applicable to the liability of the manufacturers and other persons specified in Article 3 for damage caused by a product, including damage in consequence of a misdescription of the product or of a failure to give adequate notice of its qualities, its characteristics or its method of use.

Where the property in, or the right to use, the product was transferred to the person suffering damage by the person claimed to be liable, the Convention shall not apply to their liability inter se. This Convention shall apply irrespective of the nature of the proceedings.

Article 2

For the purposes of this Convention -

a) the word "product" shall include natural and industrial products, whether raw or manufactured and whether movable or immovable;
b) the word "damage" shall mean injury to the person or damage to property as well as economic loss; however, damage to the product itself and the consequential economic loss shall be excluded unless associated with other damage;
c) the word "person" shall refer to a legal person as well as to a natural person.

Article 3

This Convention shall apply to the liability of the following persons -

1. manufacturers of a finished product or of a component part;
2. producers of a natural product;
3. suppliers of a product;

4. other persons, including repairers, and warehousemen, in the commercial chain of preparation or distribution of a product.

It shall also apply to the liability of the agents or employees of the persons specified above.

Article 4

The applicable law shall be the internal law of the State of the place of injury, if that State is also -

a) the place of the habitual resident of the person directly suffering damage, or
b) the principal place of the person claimed to be liable, or
c) the place where the product was acquired by the person directly suffering damage.

Article 5

Notwithstanding the provisions of Article 4, the applicable law shall be the internal law of the State of the habitual residence of the person directly suffering damage, if that State is also -

a) the principal place of business of the person claimed to be liable, or
b) the place where the product was acquired by the person directly suffering damage.

Article 6

Where neither of the laws designated in Articles 4 and 5 applies, the applicable law shall be the internal law of the State of the principal place of business of the person claimed to be liable, unless the claimant bases his claim upon the internal law of the State of the place of injury.

Article 7

Neither the law of the State of the place of injury nor the law of the State, of the habitual residence of the person directly suffering damage shall be applicable by virtue of Articles 4, 5 and 6 if the person claimed to be liable establishes that he could not reasonably have foreseen that the product or his own products of the same type would be made available in that State through commercial channels.

Article 8

The law applicable under this Convention shall determine, in particular -

1. the basis and extent of liability;
2. the grounds for exemption from liability, any limitation of liability and any division of liability;
3. the kinds of damage for which compensation may be due;
4. the form of compensation and its extent;
5. the question whether a right to damages may be assigned or inherited;
6. the persons who may claim damages in their own right;
7. the liability of a principal for the acts of his agent or of an employer for the acts of his employee;
8. the burden of proof insofar as the rules of the applicable law in respect thereof pertain to the law of liability;
9. rules of prescription and limitation, including rules relating to the commencement a period of prescription or limitation, and the interruption and suspension of this period.

Article 9

The application of Articles 4, 5 and 6 shall not preclude consideration being given to the rules of conduct and safety prevailing in the State where the product was introduced into the market.

Article 10

The application of a law declared applicable under this Convention may be refused only where such application would be manifestly incompatible with public policy (ordre public).

Article 11

The application of the preceding Articles shall be independent of any requirement of reciprocity. The Convention shall be applied even if the applicable law is not that of a Contracting State.

Article 12

Where a State comprises several territorial units each of which has its own rules of law in respect of products liability, each territorial unit shall be considered as a State for the purposes of selecting the applicable law under this Convention.

Article 13

A State within which different territorial units have their own rules of law in respect of products liability shall not

be bound to apply this Convention where a State with a unified system of law would not be bound to apply the law of another State by virtue of Articles 4 and 5 of this Convention.

Article 14

If a Contracting State has two or more territorial units which have their own rules of law in respect of products liability, it may, at the time of signature, ratification, acceptance, approval or accession, declare that this Convention shall extend to all its territorial units or only one or more of them, and may modify its declaration by submitting another declaration at any time.

These declarations shall be notified to the Ministry of Foreign Affairs of the Netherlands, and shall state expressly the territorial units to which the Convention applies.

Article 15

This Convention shall not prevail over other Conventions in special fields to which the Contracting States are or may become Parties and which contain provisions concerning products liability.

Article 16

Any Contracting State may, at the time of signature, ratification, acceptance, approval or accession, reserve the right -

1. not to apply the provisions of Article 8, sub-paragraph 9;
2. not to apply this Convention to raw agricultural products.

No other reservations shall be permitted.

Any Contracting State may also when notifying an extention of the Convention in accordance with Article 19, make one or more of these reservations, with its effect limited to all or some of the territories mentioned in the extension.

Any Contracting State may at any time withdraw a reservation it has made; the reservation shall cease to have effect on the first day of the third calendar month after notification of the withdrawal.

Article 17

This Convention shall be open for signature by the States which were Members of the Hague Conference on Private International Law at the time of its Twelfth Session.

It shall be ratified, accepted or approved and the instruments of ratification, acceptance or approval shall be deposited with the Ministry of Foreign Affairs of the Netherlands.

Article 18

Any State which has become a Member of the Hague Conference on Private International Law after the date of its Twelfth Session, or which is a Member of the United Nations or of a specialized agency of that Organization, or a Party to the Statute of the International Court of Justice may accede to this Convention after it has entered into force in accordance with Article 20.

The instrument of accession shall be deposited with the Ministry of Foreign Affairs of the Netherlands.

Article 19

Any State amy, at the time of signature, ratification, acceptance, approval or accession, declare that this Convention shall extend to all the territories for the international relations of which it is responsible, or to one or more of them. Such a declaration shall take effect on the date of entry into force of the Convention for the State concerned.

At any time thereafter, such extensions shall be notified to the Ministry of Foreign Affairs of the Netherlands.

Article 20

This Convention shall enter into force on the first day of the third calendar month after the deposit of the third instrument of ratification, acceptance or approval referred to in the second paragraph of Article 17. Thereafter the Convention shall enter into force

- for each State ratifying, accepting of approving it subsequently, on the first day of the third calendar month after the deposit of its instrument of ratification, acceptance or approval;
- for each acceding State, on the first day of the third calendar month after the deposit of its instrument of accession;
- for a territory to which the Convention has been extended in conformity with Article 19, on the first day of the third calendar month after the notification referred to in that Article.

Article 21

This Convention shall remain in force for five years from the date of its entry into force in accordance with the first paragraph of Article 20, even for States which have ratified, accepted, approved or acceded to it subsequently.

If there has been no denunciation, it shall be renewed tacitly every five years.

Any denunciation shall be notified to the Ministry of Foreign Affairs of the Netherlands, at least six months before the expiry of the five year period. It may be limited to certain of the territories to which the Convention applies.

The denunciation shall have effect only as regards the State which has notified it. The Convention shall remain in force for the other Contracting States.

Article 22

The Ministry of Foreign Affairs of the Netherlands shall notify the States Members of the Conference and the States which have acceded in accordance with Article 18, of the following -

1. the signatures and ratifications, acceptances and approvals referred to in Article 17;
2. the date on which this Convention enters into force in accordance with Article 20;
3. the accessions referred to in Article 18 and the dates on which they take effect;
4. the extensions referred to in Article 19 and the dates on which they take effect;
5. the reservations, withdrawals of reservations and declarations referred to in Articles 14, 16 and 19;
6. the denunciations referred to in Article 21.

In witness whereof the undersigned, being duly authorized thereto, have signed this Convention. Done at The Hague, on the...day of...19..., in the English and French languages, both texts being equally authentic, in a single copy which shall be deposited in the archives of the Government of the Netherlands, and of which a certified copy shall be sent, through the diplomatic channel, to each of the States Members of the Hague Conference on Private International Law at the date of its Twelfth Session.

APPENDIX D

Proposal for a Council Directive relating to the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products.

(Presented by the Commission to the Council on 9 September 1976)

(Preamble to this proposed directive is omitted.)

Article 1

The producer of an article shall be liable for damage caused by a defect in the article, whether or not he knew or could have known of the defect.

The producer shall be liable even if the article could not have been regarded as defective in the light of the scientific and technological development at the time when he put the article into circulation.

Article 2

Producer means the producer of the finished article, the producer of any material or component, and any person who, by putting his name, trademark, or other distinguishing feature on the article, represents himself as its producer.

Where the producer of the article cannot be identified, each supplier of the article shall be treated as its producer unless he informs the injured person, within a reasonable time, of the identity of the producer or of the person who supplied him with the article.

Any person who imports into the European Community an article for resale or similar purpose shall be treated as its producer.

Article 3

Where two or more persons are liable in respect of the same damage, they shall be liable jointly and severally.

Article 4

A product is defective when it does not provide for persons or property the safety which a person is entitled to expect.

Article 5

The producer shall not be liable if he proves that he did not put the article into circulation or that it was not defective when he put it into circulation.

Article 6

For the purpose of Article 1'damage means:
(a) death or personal injuries;
(b) damage to or destruction of any item of property other than the defective article itself where the item of property
    (i) is of a type ordinarily acquired for private use or consumption; and
    (ii) was not acquired or used by the claimant for the purpose of his trade business or profession.

Article 7

The total liability of the producer provided for in this directive for all personal injuries caused by identical articles having the same defect shall be limited to 25 million European units of account (EUA).

The liability of the producer provided for by this directive in respect of damage to property shall be limited per capita
- in the case of moveable property to 15,000 EUA, and
- in the case of immoveable property to 50,000 EUA.

The European unit of account (EUA) is as defined by Commission Decision 3289/75/ECSC of 18 December 1975.

The equivalent in national currency shall be determined by applying the conversion rate prevailing on the day preceding the date on which the amount of compensation is finally fixed.

The Council shall, on a proposal from the Commission, examine every three years and, if necessary, revise the amounts specified in EUA in this Article, having regard to economic and monetary movement in the Community.

Article 8

A limitation period of three years shall apply to proceedings for the recovery of damages as provided for in this directive. The limitation period shall begin to run on the day the injured person became aware, or should reasonably have become aware of the damage, the defect and the identity of the producer.

Article 9

The liability of a producer shall be extinguished upon the

expiry of ten years from the end of the calendar year in which the defective article was put into circulation by the producer, unless the injured person has in the meantime instituted proceedings against the producer.

Article 10

Liability as provided for in this directive may not be excluded or limited.

Article 11

Claims in respect of injury or damage caused by defective articles based on grounds other than that provided for in this directive shall not be affected.

Article 12

This directive does not apply to injury or damage arising from nuclear accidents.

Article 13

Member States shall bring into force the provisions necessary to comply with this directive within eighteen months and shall forthwith inform the Commission thereof.

Article 14

Member States shall communicate to the Commission the test of the main provisions of internal law which they subsequently adopt in the field covered by this directive.

Article 15

This directive is addressed to the Member States.

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