Negligence in the Operation of Business Aircraft

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NEGLIGENCE IN THE OPERATION OF BUSINESS AIRCRAFT

by

Daniel J. Garber

A Thesis submitted to the Faculty of the School of Graduate Studies in partial fulfillment of the Degree of Master of Business Administration

Western Michigan University Kalamazoo, Michigan June 1965
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Daniel J. Garber
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INTRODUCTION

Basis for Business Aircraft

The use of airplanes as a production tool for executives and supervisory personnel by business firms in practically all fields of endeavor is ever increasing. This is true even though the airlines have largely substituted pure jet aircraft for piston powered airplanes and turbo-propelled ships on the trunk routes. This makes it more difficult for the business aircraft to save the executives of a company time and money by cutting down transportation waste in obtaining more hours of usefulness from those persons using business aircraft transportation and less expense for employee's hotel, meals and other travel costs.

Airline jets are largely offset by the fact that many airports are not served by airlines at all. When small airports are served by feeder airlines, the schedules are often not convenient. The feeder carriers fly in zigzag patterns, making many stops, rather than flying a direct route. A number of businesses are also purchasing their own jet aircraft which are equally as fast as the jet airliners.
Legal Liability

As more businesses purchase airplanes to transport their personnel, the officers of these companies making such purchases often question the legal liability of the company in its operation of airplanes for transportation of its personnel, guests and freight.

The law of aviation negligence liability has been developing until it presents a unique and interesting field of the law. This field of the law, as with all fields of law, can never be said to be complete. Yet, the decisions of the courts indicate, in large measure, the pattern which will be adhered to in dealing with the problems of aviation negligence liability.

The legal liability of a company operating airplanes in its business is the problem to which this paper is directed. In general, the law imposes a duty upon the company to operate its airplanes with due care so as to not cause bodily injury or cause damage to the property of others. That is, the company must operate its airplanes without negligence in order to avoid legal liability. If legal liability through a judgment or out of court settlement is imposed upon the company, the company must pay damages to the injured party whose rights have been violated by the airplanes owned and operated by the company.
In order for the aircraft used in business to be operated without negligence, its pilots, as agents and employees of the company, must fly with due regard to the Federal Aviation Regulations which have been enacted by the administrator under the Federal Aviation Act of 1958. The airplanes must also be flown in compliance with state statutes, local municipal corporation ordinances and the general common law of lookout, management and control. This common law is set forth in a great body of both state and federal court cases relating to aircraft operation.

Location of Narrative

This is a fictional story about Homer Pilot flying, as the company pilot, for the XYZ Corporation from Kalamazoo, Michigan, on an extended business trip for a variety of company purposes. Homer Pilot will be flying a Piper Aztec, Model B, airplane, owned by the XYZ Corporation and manufactured by the Piper Aircraft Corporation, Lock Haven, Pennsylvania. This is a twin engine airplane capable of carrying six passengers and baggage at an optimum cruising speed of 205 miles per hour.

During this trip, Homer Pilot will be confronted with a variety of situations which could give rise to legal liability on the part of the company, the XYZ Corporation. Examples of how this legal liability has
arisen in other cases under the common law by applying state statutes, local ordinances, common law negligence principles and Federal Aviation Regulations are used to a great extent throughout this thesis to demonstrate various legal problems.

Liability Insurance

The variables used are not for the purpose of advising a company to use other means of transportation, as any means of transportation very often gives rise to many problems of legal liability. A company must bear in mind that it may protect itself from legal liability and damages resulting therefrom by the purchase of liability insurance to give the company coverage when operating business aircraft.

However, for the company executives to make a proper management decision in the purchase of aircraft insurance, they must have considerable knowledge relative to the liability resulting from aircraft operations. The insurance contract must have provisions for protection of the company in respect to all of its operations by its airplanes.

There is no standard form insurance policy like there is in other casualty lines of insurance such as fire and automobile coverages. The executive for a company which purchases aircraft insurance is able to sit
down with the aviation insurance company representative and bargain for better coverage under an insurance contract.

Insurance is not the complete answer, however. Company aircraft cannot be continually operated in a negligent manner without facing the threat of its insurance policies being cancelled. Once a policy of liability insurance is cancelled, it becomes extremely difficult to obtain further coverage from other aviation insurance companies and aviation insurance pools, as this is a very limited specialty insurance market.

Application for This Treatise

It is hoped that a company executive may use this paper to study the legal consequences of operating aircraft for business use and the necessity of providing full and complete insurance coverage for their use. Surely, the proper management decision would be aided by such a use of this thesis, although it is a practical impossibility to cover all aspects of negligence in this composition.
CHAPTER I

PRE-FLIGHT OPERATIONS

In this hypothetical situation on February 1, 1965, Homer Pilot is planning a trip to Chicago, Illinois, from Kalamazoo, Michigan. The plan is to leave early in the morning with Robert Rex, the president, two vice-presidents of the XYZ Corporation and two representatives from the Dole Mill Supply Company, together with their baggage. Unlike other forms of transportation, however, Homer Pilot has many functions to complete before the engine may be started for the air trip in order to safely begin on the journey and avoid an operation of the airplane which could give rise to liability on the part of the XYZ Company.

Duty of Company Imposed by Law

Liability on the part of the XYZ Corporation arises because it has certain duties in respect to the rights of others and their property. The legal importance of XYZ Corporation's acts inhere in the fact that the XYZ Corporation acting through its agent must conduct itself in a certain manner for someone else's benefit, or refrain from doing and taking certain actions on someone...
else's account. It has been said:

"The common terminology here is that of duty to act or duty not to act."¹

A legal duty is a condition of one who is commanded or forbidden by law to do an act. A legal duty implies that there is a person on whom the duty rests; a person to whom it is owed; certain acts or omissions constituting the content of the duty. This paper will deal with the acts or omissions constituting the content of the duty of the XYZ Corporation toward others.

Negligence Defined

A breach of one's duty to others is called negligence. Negligence in a legal sense has been defined as a violation of the duty to use care. Negligence, such as the law takes cognizance of in imposing liability, depends upon the existence of various essential elements; a duty owed by the person charged; an injury which follows the violation of that duty in such direct and natural sequence that the breach of duty can be said to be the proximate cause of the injury either to the person or the property of another.²

¹Shartel, Burke, Our Legal System & How it Operates, University of Michigan Law School, 1951, p. 65.
"Generally speaking, the degree of care required of one is graduated according to the danger attendant upon the activity which he pursues or the instrumentality which he uses. The greater the danger the greater the degree of care which is required. Necessarily, the higher degree of care and vigilance is required in dealing with a dangerous agency and in ordinary affairs of life or business, which involve little or no risk of injury to persons or property. No less a degree of care than that commensurate with the apparent danger, or in proportion to the danger reasonably to be anticipated, is reasonable. As often said, the more imminent the danger the higher the degree of care. Clearly, when human life is at stake, the rule of due care and diligence requires everything that gives reasonable promise of its preservation to be done, regardless of difficulties, or expense."

Respondeat Superior

The XYZ Corporation is liable for injuries that may be caused by the operation of the Aztec due to the negligence of Homer Pilot. The XYZ Corporation is the principal, Homer Pilot is the agent or servant of the corporation. Therefore, the owner of an aircraft used for a business purpose is liable for the negligence

of the pilot of the aircraft which results in damages to others, when the facts create a principal and agent relationship between the owner and pilot or a master-servant relationship between the owner and pilot.¹

In a wrongful death action resulting from the crash of a private plane, the company for whom the pilot worked was liable for damages for the death of one of its customers when the negligence of the pilot caused his death. Since the trip was impliedly authorized by the company for the entertainment of this business customer, the defendant company was held responsible for his death.²

Under Florida Law, the owner of an airplane may be liable for the negligence of the pilot since an airplane may be classified as "a dangerous agency when in operation." In one case, a passenger in an airplane was injured when the plane bounced on the runway in an attempted landing. The Florida Court found that the pilot did not use ordinary care in operating the plane; that the failure to use such care constituted negligence; therefore held the owner liable for the injury to the passenger.³

¹Bright v. Price, 1 Avi. 859, 1939.


Federal Aviation Act

Title III of the Federal Aviation Act of 1958 provides for an administrative body designated the Federal Aviation Agency. The Federal Aviation Agency is headed by an Administrator who is appointed by the President, by and with the advice and consent of the Senate. This Administrator is responsible for the exercise of all the powers and the discharge of all the duties of the Agency.

Under this act, the Administrator may control airspace which is used for navigation and prescribe Air Traffic Rules and Regulations controlling the flight of aircraft.

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1Public Law 85-726, 85th Cong. 2nd Sess.; 72 Stat. 731; 49 U.S. Code 1301, as amended, Section 301 (a): "There is hereby established the Federal Aviation Agency, referred to in this act as the 'Agency' . . . ."

2Ibid.

3loc. cit., Section 307 (a): "The Administrator is authorized and directed to develop plans for and formulate policy with respect to the use of the navigable airspace; and assign by rule, regulations, or order the use of the navigable airspace under such terms, conditions, and limitations as he may deem necessary in order to insure the safety of aircraft and the efficient utilization of such airspace. He may modify or revoke such assignment when required in the public interest." Section 307 (c): "The Administrator is further authorized and directed to prescribe Air Traffic Rules and Regulations governing the flight of aircraft for navigation, protection, and identification of aircraft, for the protection of persons and property on the ground, and for the efficient utilization of the navigable airspace, including rules as to safe altitudes of flight and rules for the prevention of collision between aircraft, between aircraft and land or water vehicles, and between aircraft and airborne objects."
Pilot Certificate

With the authority provided by the Federal Aviation Act of 1958, the Administrator has exercised its rule-making procedure to provide for the certification of pilots.¹ The Federal Aviation Regulations provide that a current pilot certificate must be in the possession of the person operating a civil aircraft in the United States.²

This pilot certificate must show the category for which the pilot is rated. To fly the Aztec, Homer Pilot must have his pilot certificate endorsed for an airplane.³

In addition to the category, the airplane class rating must be shown on the pilot certificate as "multiengine land" before Homer Pilot can legally fly the Aztec airplane.⁴

Recent Experience

Homer Pilot must also have made five takeoffs and


²loc. cit., Section 63.3 (a).

³loc. cit., Section 61.15 (a).

⁴loc. cit., Section 61.15 (b).
five landings to a full stop in an aircraft of the same category and class as the Aztec within the preceding 90 days before he may act as the pilot-in-command and carry passengers.\(^1\) He must also have a commercial pilot certificate.\(^2\) This enables him to serve as pilot-in-command of the Aztec while being paid a salary by the XYZ Corporation.

Therefore, the XYZ Corporation must know that Homer Pilot is a properly certified commercial pilot with his pilot certificate or license being endorsed in the airplane category and multiengine land class. The XYZ Corporation should also have a procedure to guarantee that Homer Pilot meets the recent flight experience of five landings and five takeoffs within the last 90 days in order to comply with the Federal Aviation Regulations. The reason for this is that should Homer Pilot become involved in an accident when he was improperly certified to fly the Aztec, in many states this would be prima facie evidence of negligence on the part of the XYZ Company in allowing such an improperly certified pilot to operate their aircraft. Surely, in all states it would be evidence of negligence on the part of the XYZ

\(^1\)loc. cit., Section 61.47 (a).

\(^2\)loc. cit., Section 61.131.
Corporation to be used in a court of law should a lawsuit develop from the operation of the aircraft by Homer Pilot.

When a Navy aircraft, known as the SNB, collided with a DC-4 airplane in violation of the current Air Traffic Rules (now the Federal Aviation Regulations) over Key West on April 25, 1951, the Fifth Circuit Court of Appeals held that the Navy SNB was negligent as to lookout and also negligent because it violated the Air Traffic Rules.¹

It was also held to be negligence when the pilot of a T-33 Jet collided with a Capital Viscount while operating the T-33 Jet in violation of the Civil Air Regulations (now Federal Aviation Regulations).² The collision occurred on May 20, 1958, approximately four miles east northeast of Brunswick, Maryland. The court held that the pilot of the T-33 Jet operating his airplane in a careless and imprudent manner by violating the current Civil Air Regulations.

Negligence Per Se

Other courts, though in minority, hold that

violations of the Federal Aviation Regulations is negligence per se. In this case, the Administrator had published a traffic pattern for the Washington National Airport in the Airmen's Guide. The court held that unauthorized deviation from this traffic pattern would be negligence as a matter of law. Obviously, this case demonstrates the necessity of consulting the Airmen's Information Manual for such information to help alleviate any finding of negligence on the part of the XYZ Company for violations thereof.

Medical Certificate

The Federal Aviation Regulations also provide that Homer Pilot must have an appropriate, current medical certificate issued under Part 67 of the Federal Aviation Regulations. This means that Homer Pilot must hold at least a second-class medical certificate issued under Part 67 of the Federal Aviation Regulations during the preceding 12 months.

The XYZ Company could be held responsible in damages for an accident when Homer Pilot did not have a proper medical certificate. This, however, may or may

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2op. cit., Section 61.3 (c).

3op. cit., Section 61.111 (c).
not be evidence of negligence depending upon whether the physical condition of the pilot may have possibly contributed to the accident. Some courts would no doubt hold the XYZ Company liable if their pilot did not hold a second-class medical certificate, if the actions on the part of the pilot might have been due to physical impairment which would have been caught and possibly corrected by a physical examination required by Federal Aviation Regulations, Part 61, and given under Part 67.

Effect of Improper Pilot Certification

Several cases have been reported passing upon the effect of a pilot flying without a proper license. An interesting case arose on this point in New Zealand.¹ In this case, Strand was killed in a crash of an airplane piloted by Kight, who, contrary to the regulations did not hold a license authorizing him to carry passengers while flying. The trial court held that the fact that Kight did not have a license connected with his negligence in guiding the course of the airplane was sufficient for recovery of damages.

¹Dominion Airlines, Ltd. v. Strand, New Zealand Court of Appeal, October 12-14, 1932, 1 Avi. 392.
On appeal the five judges of the New Zealand Court of Appeals wrote individual opinions. To summarize all of them, however, it can be said that the regulation requiring a pilot's license was passed for the special protection and safety of persons and property, including passengers. Therefore, lack of license on the part of the pilot would tend to establish that the accident was due to negligence on the part of the company's pilot. The Court held:

"The pilot was the managing director of the appellant company, so there can be no doubt that the company was effected with notice through him that he was not qualified to fly the aeroplane while carrying passengers. The breach of duty was not only by the pilot but by the company." ¹

Physical Condition of Pilot

A person may not act as pilot-in-command while he has a known physical deficiency that would make him unable to meet the physical requirements for his current medical certificate.² A great deal has been written about the physical condition of the pilot before flight which could well be used in preparing evidence for a negligence trial.

¹loc. cit., p. 400.
²Federal Aviation Regulations, op. cit., Section 61.45.
There are certain aeromedical factors which the pilot must pay attention to in order to leave the earth and safely fly. When the pilot enters the aircraft, he becomes an integral part of the man-machine system. The pilot is very essential to the successful flight of an aircraft. Therefore, to ignore the condition of the pilot in pre-flight planning is senseless. The fact remains that the pilot himself has the sole responsibility for determining his reliability prior to entering the aircraft for flight, unless his physical condition is so poor that it is obvious to his superiors or passengers.

While piloting an aircraft, an individual must be free of conditions which are harmful to alertness, ability to make correct decisions, and have rapid reaction time. One condition which may be hazardous to flight and therefore giving liability to the company is fatigue on the part of the pilot. Fatigue generally slows reaction time and causes foolish errors due to inattention.

"In addition to the most common cause of fatigue, insufficient rest and loss of sleep, the pressures of business, financial worries and family problems, can be important contributing factors. If your fatigue is marked prior to a given flight, don't fly."  

Sometimes, a fatigued pilot, doing a miserable job of flying, actually thinks he is performing better than usual. There are many causes for this. Among which are: boredom, prolonged concentration, close attention to detail linked with heavy responsibility, physical discomfort, noise and vibration.

"The pilot's job in combating fatigue is to maintain himself in the best possible physical and mental condition, with the help of his family, friends, and flight surgeon."

Nobody seriously questions the prohibition against mixing drinking with flying. Pilots who are impaired by alcohol, even to the slightest degree, should ground themselves until fully recovered. This does not mean that Homer Pilot has had a shot or two for breakfast and his flying ability may be impaired thereby. Alcohol stays with a person much longer than they think, regardless of how much food one eats, how much coffee one drinks, how much sleep one gets, or how much exercise a person takes. Alcohol is eliminated at the same constant slow rate -- one-third of an ounce per hour.2


2loc. cit., p. 48.
Aircraft Airworthiness

The Piper Aztec must have on display an Airworthiness Certificate. This Airworthiness Certificate is provided for by the Federal Aviation Act of 1958.¹

"The registered owner of any aircraft may file with the Administrator an application for an Airworthiness Certificate for such aircraft. If the Administrator finds that the aircraft conforms to the Type Certificate therefor, and, after inspection, that the aircraft is in condition for safe operation, he shall issue an Airworthiness Certificate. . ."

Through the exercise of his rule-making procedures, the Administrator of the Federal Aviation Agency has implemented this Section of the Federal Aviation Act of 1958 with the following regulations:

"Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator, an Airworthiness Certificate is effective as long as the maintenance requirements of Part 91 of this Chapter are complied with and the aircraft is registered in the United States."²

¹Federal Aviation Regulations, op. cit., Section 603 (c).

²loc. cit., Section 21.181.
Part 91 of the Federal Aviation Regulations provides:

"The owner or operator of an aircraft is primarily responsible for maintaining that aircraft in air-worthy condition."¹

In addition, each owner or operator has a duty to have the aircraft inspected pursuant to Part 43 of the Federal Aviation Regulations and make sure that maintenance records are kept of these inspections.²

To be airworthy, the Aztec must be equipped with certain instruments which are required by the Federal Aviation Regulations.³ The instruments and equipment specified by the regulations depend upon how the airplane is going to be flown. For the trip from Kalamazoo to Chicago under Visual Flight Rules and during the daytime, Homer will need the least amount of instruments and equipment specified by this regulation.

Insofar as the inspections are concerned, the regulations provide:

"...no person may operate an aircraft unless, within the preceding 12 calendar months it has had (1) a periodic inspection in accordance with Part 43 of this Chapter and has been approved for return to service by a person authorized...."⁴

¹loc. cit., Section 91.163.
²loc. cit., Section 91.165.
³loc. cit., Section 91.33.
⁴loc. cit., Section 91.169.
Therefore, Homer Pilot must be sure that the Certificate of Airworthiness for the Piper Aztec has not expired because of lack of maintenance. The XYZ Corporation and Homer Pilot have the duty of maintaining the Aztec in an airworthy condition. They must have it inspected under the periodic inspection procedure within the last 12 months, or sooner. The Aztec must be properly equipped.

Liability could surely be imposed upon the XYZ Company with the aid of the knowledge that the Aztec was overdue for maintenance when an accident occurred which was of the type that might have occurred because of lack of maintenance and inspection.

Doctrine of Exclusive Control

Under the Doctrine of "Exclusive Control", the XYZ Corporation must be ready and able to show that it is maintaining the Aztec to very high maintenance standards. This Doctrine provides that when the airplane which causes the injury is under the management and control of the defendants and the accident is such that it would not happen in the ordinary course of things, this affords reasonable evidence that the accident arose from want of care on the part of the defendant.\(^1\)

\(^1\)Miller v. Hosey, Pennsylvania Court of Common Pleas, 4 Avi. 17,133, 1953.
The Pennsylvania Court has limited this Doctrine to exceptional cases where the evidence of the cause of the accident is not equally available to both parties but is peculiarly or exclusively excessible to and within the possession of the defendant.¹

The Colorado Supreme Court has held that if an airplane is overhauled in accordance with the Federal Regulations and all of the evidence points to the conclusion that the airplane was airworthy in that minor deficiencies had recently been corrected, no negligence could be shown to lead to the conclusion that the accident was caused because the airplane was not airworthy within its Airworthiness Certificate.² Conversely, the court implied that if the airplane had not been maintained within the regulations of the Administrator, this would be evidence of negligence on the part of the pilot and owner.

Planning the Flight

Homer Pilot has a current Commercial Pilot Certificate with recent experience together with a medical certificate dated within the last 12 months. He has also determined that the Piper Aztec's Certificate of

¹loc. cit., p. 17,135.
Airworthiness has not lapsed because of lack of a periodic inspection. But he still has other duties and must take other pre-flight action.

"Each pilot in command shall, before beginning a flight, familiarize himself with all available information concerning that flight. This information must include, for flight under IFR or a flight not in the vicinity of an airport, available weather reports and forecasts, field requirements, alternatives available if the flight cannot be completed, and any known traffic delays of which he has been advised by A.T.C."¹

This regulation squarely places the duty upon Homer Pilot to investigate "all available information concerning that flight." Homer is planning on landing at Midway Airport, as this is the closest air field to the manufacturing plant which his passengers are going to visit. Homer should first turn to the Airmen's Information Manual and check for Notices To Airmen concerning the Kalamazoo Airport, his route to Chicago and Midway Airport. Section III-A of the Airmen's Information Manual provides the Notices To Airmen.² This is a current publication which is revised every two weeks. The Notices To Airmen will give Homer Pilot the opportunity to check for hazardous airspace activity and

¹Federal Aviation Regulations, op. cit., Section 91.5

other items considered essential to flight safety.

As the Notices To Airmen in the Airmen's Information Manual are only published every two weeks, Homer Pilot should call the nearest Federal Aviation Agency Flight Service Station, which is in Battle Creek, Michigan, and check for further Notices To Airmen which may be more current. Notices To Airmen may possibly advise Homer Pilot of restricted, caution, or warning areas through which he has to fly together with jet corridors, special procedures for busy areas, prominent obstructions and the runway conditions of the airports which he is going to be using.

Upon checking the Notices To Airmen, Homer Pilot finds that radar advisory service is available and recommended for use at Chicago Midway Airport. He finds that the runways are clear of snow and there are no other items noticed which are considered essential to the safety of his flight from Kalamazoo to Chicago Midway.

**Filing A Flight Plan**

Homer Pilot, should prepare a flight plan using current charts and maps which adequately cover the area into which he intends to fly. A formal flight plan may be filed with the Federal Aviation Agency
Flight Service Station in Battle Creek, Michigan.⁠¹

The purpose of a flight plan filed under the Visual Flight Rules of the Federal Aviation Regulations is to insure search and rescue procedures being instituted if the flight becomes overdue at its destination. The filing of a flight plan also insures proper planning and checking for the flight.

If Homer Pilot makes an emergency landing which traps him and his passengers in the airplane, the fact that a flight plan was not filed with the Flight Service Station could be an item of negligence if the failure to file a flight plan caused further injury or death due to the fact that search and rescue operations were not initiated by the Federal Aviation Agency.

Filing a flight plan also acts as a pre-flight check list for Homer Pilot. This will remind Homer to check the current weather conditions at weather stations enroute to his destination and the forecast for these stations by contacting the weather bureau in Grand Rapids, Michigan, or South Bend, Indiana, or the Flight Service Station at Battle Creek, Michigan; Flight Service Station employees are also certified meteorologists.

⁠¹op. cit., Section 91.83.
The flight plan, as a check list, reminds Homer Pilot that he must have enough gasoline and lubricating oil on board to safely complete the flight. The flight plan suggests to Homer Pilot that he must fly the correct altitude for the direction in which he is flying. Since Homer Pilot's magnetic course to Chicago will be westerly, he must fly at an even thousand foot altitude above mean sea level plus 500 feet (such as 4,500, 6,500 or 8,500).¹

Even if Homer Pilot does familiarize himself with all the available information concerning the flight to Chicago, he must use proper judgment in regard to this information. This is adequately demonstrated by the case of Ferrell v. Topp.² In this case, the pilot had examined a map and discussed an air route from Sikeston, Missouri, to Ft. Smith, Arkansas. The pilot filed a flight plan for visual flight to Ft. Smith. The pilot checked the plane over before takeoff and knew that it was cloudy and foggy over the mountains which lay en-route to Ft. Smith. The court held that the pilot knowingly choose a dangerous route and the question of whether he was guilty of wilful or wanton misconduct was

¹loc. cit., Section 91.109 (a) (2).

²Missouri Supreme Court, 9 Avi. 17,340, 1964.
a jury question to determine his negligence and therefore subject to liability in damages.

Visual Inspection of Aztec

The regulations provide: "No person may operate a civil aircraft unless it is in an airworthy condition."¹ This regulation goes on to provide:

"The pilot in command of a civil aircraft is responsible for determining whether that aircraft is in condition for safe flight."²

It is incumbent upon Homer Pilot to visually inspect the Piper Aztec for external damage to the control services, landing gear, wings, fuselage, engines and propellers. Homer must also make sure that there is no snow, ice or frost on the wings or control services.

Frost does not change the basic aerodynamic shape of the wing but the roughness of its surface spoils the smooth flow of air, thus causing a slowing of the airflow. This slowing of the air causes early airflow separation over the affected airfoil, resulting in a loss of lift and early wing stall.

A heavy coat of hard frost will cause five to ten

¹op. cit., Section 91.29.
²ibid.
per cent increase in the stall speed of the airplane. Thus, the airplane with frost on it may not become air borne at the normal takeoff speed because of premature stalling. It is also possible, once it is air borne, that the aircraft could have an insufficient margin ofairspeed above stall that moderate gusts or turning flight could produce incipient or complete stalling.¹

It is a custom in this trade to visually inspect the fuel supply of an airplane rather than rely upon gauges which indicate the quantity of fuel in the fuel tanks. One reason for this visual inspection is to make sure that the fuel caps are on securely in order that the fuel is not siphoned out of the tank by the airflow over the wings. Homer should check to make sure that the fuel system vent is open at the same time so that air may replace the fuel that is burned or a vacuum will form causing fuel starvation to the engine.

The visual inspection of the airplane includes landing gear shock struts, tires, draining the water out of the fuel strainers and fuel lines, inspecting the cowling for security and the propellers for nicks,

looking for oil leaks and making sure the windshield is clean and free of defects.

It has been held:

"The pilot before taking off should check the fuel, check his flaps and see that the fuel selector is on a full tank."\(^1\)

Here, the Maryland Court of Appeals approved testimony to the effect:

"If there was no check or inspection made before it took off, there would be no way to tell whether or not it was airworthy at the time; good practice requires that airplanes contain sufficient gas and oil. . ."\(^2\)

The Oklahoma Supreme Court has held that the failure of the pilot to check his gas supply before takoff constitutes contributory negligence.\(^3\)

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**Loading Airplane**

**Title VI of the Federal Aviation Act of 1958**

relating to the safety regulation of civil aeronautics provides:

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\(^2\) Loc. cit., p. 243.

\(^3\) Kenty v. Spartan Aircraft Company, 276 P 2d 928, 1954.
"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 interests of safety; ... (6) such reasonable rules and regulations, or minimum standards, governing other practices, methods, and procedure, as the Administrator may find necessary to provide adequately for national security and safety in air commerce."¹

Pursuant to this Section of the Federal Aviation Act of 1958, the Administrator has adopted Part 23 of the Federal Aviation Regulations which relates to airworthiness standards in the normal and utility categories of airplanes. Subpart B relates to the load distribution limits, the weight limits, and the empty weight and corresponding center of gravity of airplanes.²

Therefore, when Homer Pilot's passengers and baggage arrive he must determine that their weight and the weight of their baggage does not exceed the weight limitations imposed upon the airplane. Homer must also distribute the load so that the center of gravity of

¹Federal Aviation Act of 1958, op. cit., Section 601.

²Federal Aviation Regulations, op. cit., Part 23, Subpart B.
the airplane remains within its allowable limitations. He may do this by using the Owner's Handbook or the Operating Limitations Manual for the Piper Aztec as he has it equipped. This may require reference to the last Federal Aviation form ACA 337 computed for the Aztec.

Many accidents have been caused by the pilot's failure to compute the weight limitations. One may load an airplane to the point that the aircraft cannot develop enough lift to fly off the runway. If the center of gravity is moved rearward toward the appendage of the airplane, the aircraft will become unstable and possibly uncontrollable at certain airspeeds causing it to crash. The Nebraska Supreme Court had occasion to rule upon the negligence on the part of a company which allows rain water to settle in the tail of the airplane and move the center of gravity rearward.1 Here the court held:

"The defendants were under no duty to use the highest degree of care, but to use that degree of care that men of reasonable diligence and foresight would ordinarily exercise. This case was tried in accordance with the foregoing rules of law... The dangerous consequences to be

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reasonably apprehended would be initially the accumulation of water in the plane which would effect the weight and balance of the plane, which is an important matter to be considered before any flight. The evidence disclosed a tail-heavy condition in this plane which could and did result in a serious accident. This type of an inspection is just as important as ascertaining the sufficiency of the fuel and oil, and the operation of the engine. The owner or driver of a motor vehicle must exercise reasonable care, in the inspection of his machine, to discover any defects that may prevent its proper operation, and is chargeable with knowledge of any defects which such inspection would disclose. The defendant was required to make a proper inspection of the plane before flight."

The passengers arrive with their baggage. Homer has already computed that their weight, together with their baggage, will not exceed the gross weight allowable for the Piper Aztec. As the Piper Aztec has a forward baggage compartment in the nose of the fuselage and a rear baggage compartment behind the passenger seats near the appendage of the fuselage, he must load the baggage compartment and the passengers so as to maintain the center of gravity within its specified limits for the airplane. Homer does this. He secures the baggage door, gets into the pilot's seat, closes

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1loc. cit., p. 751-752.
the passenger cabin door. Since the frost has been removed from the wings, fuselage and tail of the airplane, he is now ready to start the engines.

Michigan Guest Statutes

Two of Homer's passengers, however, are guests in this airplane. The employees of Dole Mill Supply have been invited to take the trip. The Michigan Legislature has attempted to restrict the liability for the negligent operation for an aircraft insofar as guests are concerned.¹

"No person transported by the owner or operator or the person responsible for the maintenance or use of any aircraft, as a guest, without payment for such transportation, shall have a cause of action for damages against the owner or operator or person responsible for the maintenance or use of the aircraft for injury, death or loss, in case of accident, unless the accident shall have been caused by the gross negligence, or wilful and wanton misconduct of the owner or operator of the person responsible for the maintenance or use of the aircraft, and unless the gross negligence or wilful and wanton misconduct of the owner or operator or person responsible for the maintenance or use of the aircraft contributed to the injury, death or loss for which the action is brought."²

¹Common Laws, 1948, Section 259.180a, Michigan Statutes Annotated, Section 10.280 (1).
²Ibid.
This statute also defines guests:

"'Guests' means, any person other than an employee of the owner or registrant of the aircraft, or of a person responsible for its operation with the owner's or registrant's express or implied consent, being in or upon, entering or leaving the same, except any passenger for hire and except any passenger while the aircraft is being used in the business of demonstrating or testing. The sharing of expense shall not constitute a carriage for hire within the meaning of this act."\(^1\)

The effect of the "guest" statute is not at all clear. It is clear, however, that it applies to a person who is in, entering or leaving the airplane. Surely, some courts would hold that if a guest were injured by a propeller because the engine was running while the guest was entering the airplane that this would be gross negligence on the part of the operator in starting the engine before the passengers were safely in the cabin of the airplane.

A definition of gross negligence has been handed down by the Pennsylvania Court of Common Pleas.\(^2\) Here, at an elevation of only 300 to 400 feet above the ground, the plane was put through violent aerobatic maneuvers.

\(^1\)ibid.

It dove down to within 25 feet of the ground and then pulled up into a vertical climb. At the top of the climb, the plane stalled out to the right, dropped its right wing, dropped its nose, rolled over half on its side and half on its back with its nose pointed vertically down and dove from a height of 300 feet into the ground, killing both occupants.

The court held that it was apparent that this airplane was being operated in an extremely negligent manner. The court went on to say:

"The accident which caused his death was in no way due to any normal hazard of flying. It was a result of gross negligence, perhaps wanton recklessness, on the part of a skilled professional pilot."¹

Therefore, the jury award of $65,000 for the death of a passenger was affirmed.

The Kentucky Court of Appeals has had occasion to pass upon liability for the death of a passenger as a result of a crash of a private plane when applying the Georgia Guest Statute where the accident occurred.²

The defendant pilot in this case attempted to land at the Fulton County Airport in Atlanta, Georgia on Runway

¹loc. cit., p. 15,007.
²Drahmann v. Brink, 290 S.W. 2d 449, 1956.
The plane overshot the runway, as it came in for a landing. The pilot elected to land on the cross wind and down wind runway 2. Again the pilot overshot the runway, stalled the airplane and killed he and his passenger.

The Georgia Code, Section 11-107, provides that:

"The liability of the operator of an aircraft carrying passengers, for injury or death of such passengers, shall be determined by the rules of law applicable to torts on land arising out of similar relationships."¹

This has been held to mean that the defendant operator is liable for injury of the guest only in the case of gross negligence, the same as an operator of a motor vehicle under similar circumstances.²

The Kentucky Court concluded that there was sufficient evidence of gross negligence to require the submission of the case to the jury when the evidence showed the pilot violated several rules when attempting to land. The pilot approached at an altitude which was too high and at a speed too fast to permit him to land on runway 26. Without retracting his gear and flaps and thereby causing excessive drag which interfered


with the airplane gaining altitude the pilot attempted another landing. The attempt to land on runway 2 was tried without making a proper traffic pattern around the airport at a safe altitude. Runway 2 was partially down wind and partially cross wind, when the pilot should have been landing into the wind.

After aborting the landing on runway 2, the pilot attempted to climb without adding power to the motor and as a result stalled into the ground.
Homer has decided to fly Victor Airway 285 from the Kalamazoo Airport to the South Bend Omni Range Radio and Victor Airway 6 from the South Bend Radio to Midway Airport in Chicago. He knows that all radio aids to Chicago are functioning normally because he has checked for Notices to Airmen with the Battle Creek Flight Service Station. Homer should keep his radio tuned to the nearest Omni Range Radio during his flight to check for any sudden changes in weather and emergency situations that might arise enroute and for further Notices to Airmen which each Flight Service Station will broadcast upon receipt.

Federal Airways

The establishment of these Federal Airways cost the United States Government millions of dollars. The operation and maintenance of the system costs additional millions every year. By using the Airways, the pilot should use the additional safety available on these Airways because of the radio aids, pilot reports enroute and easier search and rescue operations in emergencies.

As this flight is originating in Michigan, Homer
Pilot and the XYZ Corporation are controlled by the statutes enacted by the Michigan Legislature. One such statute deals with the civil liability for the negligent operation of aircraft:

"The owner or operator of the person or organization responsible for the maintenance or use of an aircraft shall be liable for any injury occasioned by the negligent operation of the aircraft, whether the negligence consists of a violation of the provisions of the statutes of the State, or in the failure to observe ordinary care in the operation, as the rules of common law require."

Seat Belts

The Federal Aviation Regulations provide that there must be approved safety belts for all occupants as equipment in this airplane. It would seem incumbent upon Homer Pilot to make sure that these seat belts are properly fastened on each one of his passengers before even starting the engines, as this is when he has time to make such an inspection. It would also be good operating practice for Homer Pilot to caution his passengers against smoking while taxiing and taking off from Kalamazoo Airport due to the increased hazards of fire in the event of

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1Michigan Statutes Annotated, op.cit.,Section 10,280 (1).

2Federal Aviation Regulations, op.cit.,Section 91. 33 (b) (12).
an emergency.

Ignition

Although the Federal Aviation Regulations do not provide for it, Homer Pilot should open the side window of his airplane and call "clear" loudly and distinctly before starting the Aztec's engine. This is a custom in the trade which is taught to all pilots and could surely be proved to be an item of negligence if a propeller struck a person, such as a line attendant who was near the airplane, but was not observable from the pilot's seat.

Homer Pilot must also ascertain that he will not do any damage to persons or property behind the Aztec because of air turbulence from the Aztec's propellers. This "prop wash" is strong enough to upset light planes, injure persons with debris which may be picked up, strike them, damage buildings and automobiles.

However, when the Aztec is in the "run-up" area preparing to take-off and a small airplane should happen to taxi behind it when the pilot of the smaller airplane has every opportunity to see the engines of the Aztec running, one court has held that it would not be negligence on the part of Homer Pilot for the damage that occurs to the other light airplane in the immediate
vacinity.\textsuperscript{1} The reason for this rule is that it is dif-
ficult to see to the rear of most airplanes, especially
an Aztec while testing the motors and propellers for
proper operation. The pilot taxiing the light airplane
behind the Aztec has the duty of keeping out of the path
of the air turbulence created by the propellers of the
Aztec. Homer must also use proper care when taxiing be-
hind large planes, such as airliners.

After Homer Pilot has the engines of the Aztec
running, he may not taxi to the active runway into the
wind without an appropriate clearance from the air traf-
fic controller in the tower.\textsuperscript{2} Thus, Homer would contact
the control tower ground control operator by radio and
ask for taxi instructions to the run-up area for the ac-
tive runway.

Taxiing to Runway

It is during taxi operations that many accidents
occur which give rise to liability on the part of the
pilot and the owner of the aircraft. In one case, where
the defendant's airplane, while taxiing for take-off,
struck and damaged the plaintiff's stationary plane, the

\textsuperscript{1}Otte v. American Airlines, Inc., 5 Avi. 17, 594,
1957.

\textsuperscript{2}op. cit., Section 91.87.
court held that the defendant was liable for the damage caused to the plaintiff's airplane in absence of contributory negligence on the part of the plaintiff.¹

In another taxi accident case, the Oklahoma Supreme Court ² held that when a taxiing airplane collided with a farm tractor, wrecking both the tractor and the plane, there was sufficient evidence to sustain a verdict and a judgment against the owner of the plane who had a pilot operating it for him.

These two cases would seem to indicate a high duty of care on the part of the pilot when taxiing on an airport. This is strengthened by the case of Read v. New York City Airport, Inc.,³ where in the New York Municipal Court for the Borough of Queens held that when plaintiff's aeroplane struck and collided with a truck belonging to the defendant thereby damaging its propeller and left lower wing, the pilot was barred from recovery for the damage to his airplane.

The court held that the pilot did not operate the

airplane in a careful and prudent manner. The fact that he had the right of way to proceed down the runway while taxiing did not, however, excuse him from the duty of alertness and doing what he reasonably could to avoid a crisis. The pilot was required to be watchful and see that the runway was clear, and to use reasonable care and diligence to avoid a collision. Had he looked carefully, he would have seen the truck in time.

"The pilot failed to exercise reasonable care and vigilance, under the circumstances, and this precludes recovery by the plaintiff, upon the ground of contributory negligence. The pilot had a duty to look to ascertain that his proposed course was not dangerous."

Run-up

Homer Pilot has now reached the run-up area in preparation for take-off on Runway 23 at the Kalamazoo Municipal Airport. During this time, Homer checks the airframe, controls, engines, flight and engine instruments by using a check list which is generally furnished by the manufacturer. Failure to use such a check list could surely be evidence of negligence on the part of a pilot, if he missed checking an item which contributed to an accident. It is a custom of pilots flying all types of equipment to use such a check list. The Federal Aviation

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1 loc. cit., p. 296.
Regulations do not require the use of a check list, but Air Safety Inspectors for the Federal Aviation Agency have urged the use of a pre-flight check list for many years.

When Homer Pilot has completed his take-off check list, he would tune his radio to the air control frequency for the control tower to obtain Air Traffic Control Clearance for take-off.\(^1\) Clearance from Air Traffic Control does not, however, relieve Homer Pilot of the duty of maintaining lookout for other aircraft that may be landing.

A Canadian court, the Saskatchewan Court of Appeal,\(^2\) has held that a pilot of a plane taxiing on water preparatory to take-off was negligent in failing to maintain a possible lookout when he collided with another plane that had just landed on the water. The court here held that such negligence constituted a breach of the pilot's common law duty to maintain lookout for other aircraft that may be in the process of landing.

**Take-off**

After Air Traffic Control clearance is received,

\(^1\) op. cit., Section 91.87.

Homer taxies to the end of Runway 23 for take-off. His physical condition and preparedness for this flight are about to become extremely important.

Specific allegations of negligence of the pilot in failing to ascertain weather conditions, not having the airplane under control, and the poor physical condition of the pilot were sufficient to raise questions for the jury in Citizens & Southern National Bank v. Huguley.¹

In this case, the allegation that the pilot "was unable to sleep and was, in fact, up and about during most of the evening and early morning hours prior to the time of said flight" was a proper allegation of negligence.² The court also held "that if the operator obtained a weather report, as he should have, he would have known that he could not fly under the existing conditions".³

When Homer Pilot makes his take-off roll on Runway 23, he must exercise the care in handling the Aztec that an ordinarily prudent pilot would have exercised under the same circumstances. Thus, if Homer Pilot began to veer off from the runway because of another plane coming onto the runway, an auto, truck or crosswind, it is his

¹100 Georgia App. 75, 110 S.E. 2d 63, 1959.
²loc. cit., p. 76.
³ibid.
duty to immediately discontinue the take-off. Failure to discontinue such a take-off has been held to constitute negligence which was the direct and proximate cause of an accident, where the plane taking off at the John Rodgers Airport in Hawaii crashed into a parked DC-3 of Hawaiian Airlines.¹

Should one of the engines of the Aztec begin to misfire as Homer Pilot makes his take-off roll to the Southwest on Runway 23, it would be negligence on the part of Homer if he failed to discontinue the flight after the motor misfired.

One court has held in this regard:

"When the motor of an airplane misfires, the flight should be terminated if possible. An airplane should not be taken off the ground if the motor is missing, because there is a likelihood of the motor continuing to miss when the plane is air-borne, with resulting loss of power culminating in a forced landing."²

Of course, if Homer Pilot has proceeded down the runway beyond the accelerated-stop distance when the engine begins to misfire, he should go around the traffic pattern of the airport and land on his good engine using all proper single engine safety procedure. He should

¹Hawaiian Airlines, Ltd. v. The United States, 139 Supp. 942, 1956.
not continue the trip under any circumstance on one engine even when the weather is good.

Visibility

Homer Pilot takes off from Runway 23 at the Kalamazoo Municipal Airport and climbs to 4,500 feet on a heading of 232 degrees from the Kalamazoo Omni Range Radio. Battle Creek Flight Service activates the Visual Flight Rules flight plan to Chicago. On this trip, Homer is flying under the Visual Flight Rules of the Federal Aviation Regulations.\(^1\) While he is operating on Victor Airway 285 between Kalamazoo and South Bend, Indiana, there must be a flight visibility of at least three statute miles and he must maintain a distance of not less than 500 feet below or 1,000 feet above and 2,000 feet horizontally from any cloud formation to fly within these regulations. Since the weather is good and Homer Pilot is flying under the Visual Flight Rules, he must avoid collisions with other aircraft and maintain traffic separation under the right-of-way rules.\(^2\)

Visual Flight Rules Right-of-Way

Probably the best example of Pilot responsibility

\(^1\)Federal Aviation Regulations, op. cit., Section 91.105.

\(^2\)loc. cit., Section 91.65 and Section 91.67.
when operating under Visual Flight Rules is the "Grand Canyon Disaster." In this case, a United Airlines DC-7 aircraft, travelling approximately 32 miles per hour faster than a Transworld Airlines Constellation, collided with the Constellation when the left wing of the DC-7 came in contact with the upper right-hand portion of the Transworld Airline Constellation fuselage just ahead of the tail assembly. The tip of the DC-7 left wing contacted the leading edge of the Transworld Airline's center fin and then immediately and with greater force contacted the leading edge of the Transworld Airline's left fin knocking it off in flight. The United DC-7 was apparently going somewhat right to left and the Transworld Airlines Constellation was going a little left to right, although the DC-7 was approaching from the rear of the Constellation.

The court approved the jury's conclusion that the United Airlines DC-7 was traveling faster, was overtaking the Transworld Airlines Constellation and was negligent in failing to maintain a proper lookout for other aircraft citing the Visual Flight Rule that:

"(d) Overtaking. An aircraft that is being overtaken has the right-of-way and the overtaking aircraft, whether climbing, descending, or in horizontal flight, shall keep out of

\[\text{Ahman v. United Airlines, Inc., 8 Avi. 17, 470 1963.}\]
the way of the other aircraft by al­tering its course to the right, and no subsequent change in the relative positions of the two aircraft shall absolve the overtaking aircraft from this obligation until it is entirely past and clear;"1

Now amended to read:

"Each aircraft that is being overtaken has the right-of-way and each pilot of an overtaking aircraft shall alter course to the right to pass well clear."2

Indiana Statutes

When the XYZ Corporation's airplane crosses into Indiana, while flying on Victor Airway 258, the operation of this airplane remains subject to the Federal Statutes and Federal Aviation Regulations, but now becomes subject to the Indiana State Law rather than the Michigan State Law. The Indiana Statutes provide that aircraft owners and operators are not liable to guest passengers being transported without payment except in cases of wanton and wilful misconduct, the same as the Michigan Statute.3

Radio Monitoring

While Homer has been flying away from the Kalamazoo

1 op. cit., Section 60.14 (d).
2 loc. cit., Section 91.67 (e).
3 Chapter 192, Laws, 1951, effective March 5, 1951.
Omni, he has been listening to the weather forecasts and current weather information broadcast by the Battle Creek Flight Service Station together with any Notices to Airmen that may have been new and current. When Homer is about halfway to South Bend, he will tune in the South Bend Omni Range Radio and listen for current weather, forecasts and Notices to Airmen from the South Bend Omni Flight Service Station.

When Homer crosses the South Bend Omni Range Radio, he will turn to the correct heading to maintain a track of 271 degrees and fly Victor Airway 6 to Midway Airport. Since the weather is still good Homer will continue to operate under the Visual Flight Rules and fly at the same altitude of 4,500 feet, since he is still heading in a westerly direction.

Rough Air

It has been a smooth flight at 4,500 feet from Kalamazoo to South Bend, but in the vicinity of Michigan City, Indiana, the air becomes rough and the Aztec begins to roll and pitch. It then becomes the duty of Homer Pilot to advise his passengers to fasten their seat belts. If the airplane suddenly dropped as a result of a down draft, throwing officers of the company and the guests around in the cabin of the airplane, this could very well be a negligent act on the part of Homer Pilot because of his non-
feasance. One court has held in this regard:

"A law of negligence in the operation of airplanes carrying passengers is developing now, as it did with railroads more than half a century ago. It appears now to be common knowledge with regard to the operation of airplanes that down drafts, which vary in effect according to their extent, are not uncommon. It is true that such a manifestation of nature like the weather is commonly referred to as an act of God. So far as the weather is concerned, it cannot be denied that airplane operators take every precaution against weather hazards. If it is possible to determine or even suspect that under certain conditions down drafts are likely or possible, it would appear to be the duty of a prudent operator to take whatever precautions are necessary or available to guard against dangerous consequences."¹

Use of Radar

As Homer Pilot approaches the west shore of Lake Michigan on Victor Airway 6, he should call Chicago Midway Airport Tower for the aid of radar traffic advisories. These are designed to aid pilots to see and avoid other traffic by providing radar traffic information. Since Homer Pilot has checked the Airmen's Information Manual, he knows that such service is available. This does not take away his responsibility of maintaining lookout for other airplanes and control of the Aztec.

¹Small v. Transcontinental & Western Air, Inc., 3 Avi. 17, 180, 1950, P. 17,182.
Radar service may not be interpreted as relieving the pilots of their responsibility for continual vigilence to see and avoid other aircraft. Radar is provided to a pilot in order to aid him in his visual surveillance by calling his attention to pertinent traffic. Surveillance radar utilized by the controllers in Midway Tower does not provide altitude information of other aircraft to the pilot.

The pilot's participation in the use of radar advisories is not mandatory under the Federal Aviation Regulations, but it is certainly to be recommended. When such safety service is made available to the pilot and the pilot fails to make use of it, surely this could be evidence of negligence to be presented to a jury if a mid-air collision should result.

Illinois Statutes

Now that the XYZ Corporation's Aztec is operating over the State of Illinois, the law of Illinois applies. Here, also, the Illinois State Statutes limits the liability for personal injury to or for the death of a guest riding in an aircraft without giving compensation for such a ride. The Illinois Statutes set up regulations controlling the movement of aircraft on the ground

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1S.B. No. 231, Laws, 1939, effective July 1, 1950.
or surface of public airports and the taking off and landing of aircraft from such airport when such a movement will endanger the public safety, health, welfare or common defense.¹

Pilot Responsibility During Landing

Homer begins his descent from 4,500 feet while monitoring the radar surveillance frequency on his radio and is finally told to change his radio frequency to the Midway Tower Radio for instructions to land. After receiving these instructions, Homer Pilot lines up on final approach to land on Runway 22R. But even though he has received Air Traffic Control clearance to land, under the Federal Aviation Regulations, he is not relieved of his duty to avoid a collision during the landing. The United States District Court for the Eastern District of New York has said on this point:²

"He had a duty of seeing that his landing area was clear before he landed and he had a responsibility to spot and avoid collision with ramp vehicles even if it meant stopping the movement of his aircraft. In good weather, the tower provides traffic clearance consisting of advice and information to pilots to assist them in carrying out their responsi-


ability for avoiding collision, but under the rules and regulations prevailing at the time, between the pilot and the tower man, the pilot was primarily responsible for preventing collision. It was the duty of Williams, the tower man, to call to the attention of the pilot, traffic which was known to the tower, that appeared to constitute a hazard to the aircraft. But this duty did not diminish the duty or responsibility of the pilot...there was at the very least as much reason to expect the pilot to see the truck as there was for the tower man to see it, and probably more."

Homer Pilot lands the Aztec, turns off the active runway, changes to the ground control tower frequency, closes his Flight Plan and is directed to the parking ramp area operated by Butler Aviation on Chicago's Midway Airport. The ground controller closes his Flight Plan with Joliet Flight Service.
CHAPTER III

THE NIGHT FLIGHT

The President, Robert Rex, had no idea the length of time the Chicago conference would require, nor whether this conference would lead to other meetings in more cities than Chicago. Therefore, Homer Pilot has been loafing and reading in the pilot lounge in Butler Aviation's Hangar on Midway Airport. At 3:00 p.m. Mr. Rex calls and informs Homer that they will be staying overnight in Chicago as it does not appear the conference will be completed. Homer then proceeds to check in at the Airway Motel.

That evening, at about 9:00 p.m., Mr. Rex again calls Homer at the Airway Motel asking him to prepare for a trip to Kansas City, Missouri, with the same passengers and baggage to leave in about one hour.

Homer has his work cut out for him. He must check out of the Motel and go through almost the same procedures that he did early in the morning in preparing for the trip to Chicago. Since this is a night flight, however, the principles used for the operation of the XYZ Corporation's Aztec are modified to some extent.
Pilot's Use of Liquor

Since Homer thought that he was going to stay over­night in Chicago, he may have had several drinks before dinner. In regard to the use of liquor while flying an airplane, the Federal Aviation Regulations provide: 1

"No person may act as a crew member of a civil aircraft while -- (l)under the influence of intoxicating liquor;

Determining whether one is under the influence of intoxicating liquor, so as to affect his flying ability and thereby contributing to the cause of an accident giving rise to negligence on the part of XYZ Company, and therefore liability, presents some very complex ques­tions and legal problems. In any law suit involving the question of flying under the influence of intoxicating liquor, the amount of alcohol in such person's blood is generally held now to be admissible in evidence against that person or company.

The amount of alcohol in one's blood could even give rise to certain legal presumptions which may have a tremendous influence on the jury's verdict. If the chemical test of the blood of the pilot shows that at the time of an accident there was 0.05% or less by weight of alcohol in the pilot's blood, most experts would tes­tify and many courts would presume that the pilot was not

1op. cit., Section 91.11.
under the influence of intoxicating liquor. However, if there was, at the time of the accident, in excess of 0.05% but less than 0.15% by weight of alcohol in the pilot's blood, most experts would agree and most courts would charge the jury that whether the pilot was or was not under the influence of intoxicating liquor was an issue of fact for the jury. The important point is, under such standards, that if the pilot had 0.15% or more by weight of alcohol in his blood, almost all the experts agree and most of the courts would presume that the pilot was under the influence of intoxicating liquor.

The presumption that the pilot was under the influence of intoxicating liquor if his alcohol weight content exceeded 0.15% is rebuttable by testimony produced by the defendant. Obviously however, if the jury has heard testimony as to the pilot's physical condition, in addition to expert testimony as to the affect of the weight of alcohol in his blood, it is very difficult to erase such evidence from the minds of the jurors.

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1This type of test is actually included in the motor vehicle code of most states. See Chapter 75b, Michigan Motor Vehicle Code, Section 625a (1), Michigan Statutes Annotated, Section 9.2325 (1). Almost all states have this provision for motor vehicles and would, no doubt, apply such presumption to the operation of airplanes upon the testimony of expert witnesses.
Night Flight Instruments and Equipment

The Aztec may have been in an airworthy condition for the daylight flight from Kalamazoo to Chicago under Section 91.163 of the Federal Aviation Regulations. This would mean that all the equipment listed in Section 91.33 (b) of the Federal Aviation Regulations for Visual Flight Rules, day, would be on the airplane. But this is a night flight, so Homer must make sure that the Aztec is equipped under Section 91.33 (c) of the Federal Aviation Regulations. This regulation requires the instruments and equipment specified in Section 91.33 (b), together with position lights, one set of spare fuses and an adequate source of electrical energy for all installed electrical and radio equipment.

When Homer makes his pre-flight examination of the Aztec, he should turn on his master switch and position light switch to determine if the position lights are in operable condition as they are difficult to see from the pilot's seat in the cabin of the airplane. It would also be well to check the taxi, landing, map, instrument and anti-collision lights at this time.

Not only must the Aztec be equipped with lights, but these lights must be on during the period from sunset to sunrise and while moving the aircraft on the airport and while actually flying.1

1op. cit., Section 91.73.
Night Recent Flight Experience

To make this flight, Homer must also have additional recent flight experience. The Federal Aviation Regulations provides:¹

"No person may act as pilot in command of an aircraft carrying passengers during the period beginning one hour after sunset and ending one hour before sunrise (as published in the American Air Almanac) unless, within the preceding 90 days, he has made at least five take-offs and five landings to a full stop during that period of the day."

Therefore, it becomes incumbent upon Homer to check his pilot log book to determine whether he meets this recent experience requirement.

Airmen's Information Manual

While Homer is conducting his pre-flight investigation, it is imperative that he check the Airmen's Information Manual again. The present Airmen's Information Manual also incorporates what used to be known as the Airmen's Guide. The Airmen's Guide was the old Civil Aeronautics Administration publication (issued by the Department of Commerce) which contained the Notices to Airmen relative to airports, communication stations, airways and any other hazards.

¹loc. cit., Section 61.47.
In a case on this point, a pilot of a 1946 Culver airplane landed at the Lancaster Municipal Airport in Lancaster, Pennsylvania, just after dark on October 9, 1947. He made a normal landing, taxied about 400 feet and struck a rock pile which was about 400 feet in diameter and 18 inches high, tearing off the landing gear. There were no lights of any kind on the rock pile to mark out the obstruction.

The Pennsylvania Court of Common Pleas\(^1\) held that the pilot was negligent in failing to read the latest supplement to the Department of Commerce Airmen's Guide. The Airmen's Guide gave notice of the off-runway obstruction. Therefore, if the pilot had read the Airmen's Guide, he would have known of this rock pile which he struck.

On the appeal of this case to the Pennsylvania Superior Court,\(^2\) it was held that the negligence of the pilot was a question which must be determined by the jury, but that the Airmen's Guide could be considered evidence of negligence.

The court went on to hold: \(^3\)

"In the operation and control of an

\(^{1}\)Plewes v. Lancaster, 3 Avi. 17,286, 1950.
\(^{3}\)loc. cit., p. 314
airplane, it is the pilot's duty to exercise ordinary care. He is not held to the highest degree of care that men of reasonable vigilence or foresight ordinarily exercised in the operation of a plane in making a landing on the runway in an airport, but he is bound only to use ordinary care."

Weather Reports and Forecasts

The weather report obtained from the United States Weather Bureau for the flight from Chicago to Kansas City advised Homer that he could continue the flight under the Visual Flight Rules. However, thunderstorms were forecast 100 miles on either side of the Missouri River. No thunderstorms were in progress at 9:30 p.m. when Homer called the Weather Bureau.

Air Traffic Control Clearance

Just after the Visual Flight Rules flight plan was filed to Kansas City and the pre-flight inspection was completed on the Aztec, Robert Rex and the other passengers arrived. The baggage was loaded and the passengers were seated in the cabin. After Homer starts the engine, he calls the Midway Ground Control Tower operator and receives an Air Traffic Control Clearance to taxi to runway 23R, hold short and make his runup on the taxiway. Except for an emergency, Homer may not operate the Aztec contrary to this Air Traffic Control instruction, unless
he obtains an amended clearance from Air Traffic Control.¹

Altimeter Setting

Since Homer is going to be flying at an altitude of 6500 feet above mean sea level on this flight, he will set his altimeter to the current reported altimeter setting given him by Midway Ground Control.² Thereafter, during his flight, he will maintain the altimeter setting of each station which is within 100 nautical miles of the Aztec.³

Use of Flaps for Take-off

The Owner's Handbook for the Model B Aztec provides that the flaps should be in the up position for take-off.⁴ Flap operation is customarily checked prior to take-offs. Homer could easily leave the flaps in the down position and take off with the flaps fully extended.

One case has been reported where the pilot did take off from the Janesville, Wisconsin, Airport on August 1,

¹op. cit., Section 91.75.
²loc. cit., Section 91.81.
³ibid.
⁴op. cit., p. 30.
1951, with his flaps down. Because of the drag induced by the flaps being in this position, the plane failed to gain sufficient altitude to clear a row of trees beyond the east end of the airport. The jury found that at the time and place in question and under the conditions and circumstances, the pilot failed to exercise ordinary care by taking off with the flaps in the down position, contrary to the evidence presented in the case.

The testimony showed that this Stinson, which was involved in the accident, had flaps which were operated by a lever by the pilot. If the pilot had the flaps in the fully down position, they would act as a brake and reduce the speed of the airplane at a critical period of operation. On this Stinson, the fully down flap position was recommended only when the airplane was landing and never in taking the plane off the ground where air speed is an all-important factor in gaining altitude.

The Wisconsin Supreme Court held:

"With these facts in mind, it would seem clear that the act of an operator in a plane in controlling the position of the flaps is part of the management and control of the plane... evidence with respect to the position in which Howard R. Fink had the flaps at the time of taking off at the Janes-

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1 Maxwell v. Fink, 264 Wis. 106, 58 N.W. 2d 415, 1953.
2 loc. cit., p. 108.
ville Airport was clearly admissible under the allegation of negligence relating to the operation of the plane so as to gain sufficient altitude to clear the trees."

Condition of Pilot

It must also be kept in mind that Homer is about to take off on a night flight when it is nearly his normal bedtime. He was up early this morning to prepare for the flight to Chicago. Is his physical condition such that he may safely complete this trip?

When an accident arose due to the pilot hitting a tree while trying to land at Waynetown, Indiana, on May 22, 1930, the Illinois Appellate Court held:¹

"After a very careful consideration of all the facts and circumstances, we have reached the conclusion that the jury were fully warranted in finding that had the pilot exercised the care required of him as a servant of a common carrier, or even ordinary care, the accident would not have happened...either the pilot was too tired to exercise proper care, or he had lost his way, or had, for some other reason, become confused."

Minimum Altitudes

Homer obtains Air Traffic Control Clearance from the Midway Tower to take off. He immediately climbs to

6,500 feet on Victor Airway 6 to the Naperville Omni Range Radio Station. By immediately climbing to 6,500 feet, Homer has complied with the Federal Aviation Regulations relative to minimum safe altitudes. These Regulations provide:

"Except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes: (a) an altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface; (b) over any congested area of a city, town, or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft."

Thunderstorm

Then, Homer flies Victor Airway 9 and 262 to Bradford, Illinois, where he picks up Victor Airway 10 to Kansas City. As the Aztec approaches Kirksville, Missouri, Homer notices lightning which appears to be emitting from a large cumulo nimbus cloud directly on his track over the ground in front of him. Homer, no doubt, has the duty to fly around this thunderstorm.

When an Air Force Jet T-33 entered a thunderstorm on October 6, 1955, the United States District Court for the Eastern District of Illinois held that the jet pilot was

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1Federal Aviation Regulations, op. cit., Section 91.79.
negligent in not going around the storm clouds when it was within his discretion to do so. The canopy of the airplane fell out of the sky and killed Victor O. Bright. The pilot lost complete control of the jet and bailed out.

Missouri Statutes and Ordinances

Unlike Michigan, Indiana and Illinois, the legislature of the State of Missouri has not enacted laws related to the operation and control of airplanes. Apparently, Missouri feels that the Federal Government has pre-empted the field because of the Federal Statutes and Federal Aviation Regulations. Ordinances passed by municipalities cannot generally be found either. Therefore, operation in Missouri would be controlled by the common law principles of the State and the Federal Aviation Regulations.

Res Ipsa Loquitur

Homer flies around the thunderstorm without any difficulty. He again gets back on course flying Victor Airway 10 southwest of Kirksville, Missouri. If both of the engines of the aircraft should fail, a forced landing would become necessary. The Aztec could strike a home. The Doctrine of Res Ipsa Loquitur might apply.

Res Ipsa Loquitur permits an inference of negligence when the evidence establishes that the particular thing
causing the injury was under the management of the defendant and the accident is such as in the ordinary course of things does not happen if those who have the management use proper care. In United States v. Johnson, there were seven aircraft accidents on the property leased by the Johnson's during the years 1954 and 1955 as a result of Air Force planes making forced landings on their lease hold. The Fifth Circuit Court of Appeals held that the best evidence of the cause of each of these crashes rested with the Government and was not available to the plaintiff, since the crashes that occurred generally result because of pilot negligence. The trial court properly applied the Doctrine of Res Ipsa Loquitur so that the Government then had the burden of proof to show that the accidents were not caused by its negligence. In other words, the accidents spoke for themselves to show that they happened as a result of Government negligence.

Obtaining Field Information

In Chicago, Homer filed a Visual Flight Rule flight plan to land at the East Kansas City Airport in Green Valley, Missouri. This airport was selected because of its nearness, in point of distance, to the breakfast meeting to be held February 2, 1965. Homer has never landed at

\footnote{7 Avi. 17,200, 1961.}
the East Kansas City Airport. He has checked the airport directory of the Airmen's Information Manual to find that the East Kansas City Airport is at an elevation of 840 feet above mean sea level and has at least one hard surfaced runway, 3,000 feet in length which has low intensity runway lights.\(^1\) The airport directory also indicates that there are power lines south of the airport and southwest of the airport, with a fence both east and west of the airport.

There are several companies which publish data for pilots. One of these companies is the Jeppesen Company which publishes airport information and diagrams for pilots.\(^2\) Another publication is the "Aviation Enroute Atlas" published by Sky Prints, Inc.\(^3\) These services provide low cost and accurate information and help to supplement the Airmen's Information Manual. Homer has checked his Jeppesen Airport Diagram for the East Kansas City Airport to find that the Airport lies 2.8 miles from the Kansas City Visual Omni Range Radio on a heading of 123°. He also found that the airport is equipped with a true light (rotating beacon), so that it may be easily

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\(^1\) Airmen's Information Manual, Section 4, p.104, 1964.

\(^2\) Jeppesen & Company, 8025 East 40th Avenue, Denver, Colorado.

\(^3\) 520 North Michigan Avenue, Chicago, Illinois.
spotted at night. It has a lighted tetrahedron and wind cone so that he may determine the direction of the wind. These items are important to Homer because the airport is not equipped with a control tower, is unattended at night and, therefore, he must find these things out for himself.

However, Homer may use his radio to contact the Kansas City Flight Service Station which can give him all the information necessary to land at the East Kansas City Airport, except for knowing exactly which way the wind is blowing and the weather conditions which prevail on the field at the time because the Flight Service Station is located at the Kansas City Municipal Airport and not at the East Kansas City Airport.

There is no doubt a duty upon a pilot to have the information that is available to him about an airport, especially when it is new and strange to him, before attempting to land thereon.

"As a practice, it should seem that common sense would require a careful pilot to obtain in advance such information available, from reliable sources, as would enable him to determine the condition of the field which is his destination; and if the circumstances indicate that dangers not ordinarily encountered are to be apprehended, as in the case at bar, prudence would demand such a course."\[^1\]

\[^1\] Pavey v. City of Miami, 146 Fla. 629, 1 So. 2d 614, 1941, p. 632.
The Airmen's Information Manual has revealed to Homer that there are power lines south and southwest of the East Kansas City Airport. Even if Homer did not know of the existence of these power lines, he could be held negligent as a matter of law or negligent per se in the operation of the Aztec, if the Aztec collided with the power lines while landing. It would not appear to make any difference to some courts at least whether the wires crossed the runway or were along side the border of the airport, nor whether, if along side the landing approach to the runway, they were within a few feet or a half mile from the border.¹

The Doctrine of Res Ipsa Loquitur was applied in a case where an airplane crashed while apparently attempting a normal night approach for a landing where no other facts were available to show that the accident was unavoidable.² This case was before the Tennessee Court of Appeals concerning an accident which happened near the Tri-City Airport in Saginaw, Michigan. A four motor Viscount airplane being operated by Capital Airlines, Inc. crashed in a field approximately 2,200 feet short of the

²Capital Airlines, Inc. v. Barger, 6 Avi. 18, 147, 1960.
south end of Runway 5 at about 11:19 p.m., on April 6, 1958. The Viscount was making a routine approach for a landing at the Tri-City Airport. It was conceded in this case that the pilot of the defendant had the exclusive control and management of the airplane.

Therefore, the court held that from the facts surrounding the accident, the jury was warranted in finding an inference or presumption of negligence based upon the Doctrine of Res Ipsa Loquitur. It devolved upon the defendant company to rebut the inference or presumption by showing the crash was unavoidable and could not have been prevented by the exercise of proper care.

The Canadian Exchequer Court\(^1\) found that a pilot was negligent when an accident occurred at a public airport in Canada due to a ditch which constituted an obstruction on the runway. The pilot was flying a Stinson Station Wagon Aircraft on July 19, 1948. He landed this airplane at the Saskatoon Airport and ran into the side of an open ditch thereon. The Canadian Court of Exchequer held:\(^2\)

"...whether for protection of planes and passengers, as well as for persons or objects on the ground, it is essential for a pilot before landing to know the con-

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\(^1\)Grossman v. His Majesty the King, 3 Avi. 17,472, 1950.

\(^2\)loc. cit., p. 17,477.
ditions existing on the landing field... calling a control tower or a radio range for information as to the landing area was advisable, if not essential...if he were approaching a strange airport and knew there was a radio range there, he would (if equipped with 2-way radio), as an experienced pilot, contact the radio range to make sure it was safe to land."

Additional Skill

In addition to the recent experience requirements of the Federal Aviation Regulations, the common law may require that Homer Pilot have more training, knowledge and experience in night flying than is set forth in these regulations.

In the Boise Payett Lumber Company case cited above, the court held:

"...All the known facts indicate that, because of lack of nighttime flying experience and instruction, the pilot, on his turn to base leg, became confused and lost the horizon, or, more correctly stated for the dark night in question, lost his sense of where the horizon ought to be if there had been one, and so the crash resulted.

It is probably a shortcut to say, as the expert said, 'lack of nighttime flight training caused the accident'.

If one goes the long way around, one may say that if a person creates a situation through lack of requisite skill (being just as careful as one knows how) which causes an injury, the

\(^{1}\text{op. cit., p. 17,411.}\)
law treats that person the same as if the situation, with the same injuries, had been brought about by a skilled person's being momentarily careless.

The popular 'lack of training caused the accident' would be complete if one said, 'lack of training created a situation which caused the accident, and the legal penalty is the same as it is for the one with the requisite skill not being ordinarily careful'."

Securing the Aztec

At about midnight, February 1, 1965, the Aztec touches down on Runway 27 at the East Kansas City Airport, after closing the Visual Flight Rules flight plan with Kansas City Flight Service. The Airport is unattended during these hours. The sky is clear and the stars are shining brightly. There is no wind and Homer cannot find any tie-down chains or ropes for the Aztec. The Aztec is parked in front of a hangar. Mr. Rex calls a taxicab and everyone is taken to the nearest motel.

Leaving the Aztec untied, when Homer knew that thunderstorms were forecast for the area, could present some very concerning legal consequences. Thunderstorms are associated with tornadoes and high winds. In the case of Southern Air Transport v. Gulf Airways, Inc., the Louisiana Supreme Court held that when the company's

1215 La. 336, 40 So. 2d 787, 1949.
aircraft was moved by strong winds during a storm while parked at an unattended airport, and rolled into another aircraft causing considerable damages thereto, the failure to secure the parked aircraft and make certain that it would not be moved by the force of strong winds constituted negligence on the part of the company.

In this case, a Douglas DC-3 rolled into another Douglas DC-3, which was owned by the plaintiff. The defendant company's DC-3 was not tied down. There was considerable damage to the left wing and fuselage of the plaintiff's DC-3 resulting in a judgment in favor of the plaintiff of $7,864.40.

The accident happened at the New Orleans Airport when the wind reached a velocity of 60 to 65 miles per hour with gusts up to 70 miles per hour. The court held that the parking brakes should have been set; that the airplane should have been tied down; that the wheels of the aircraft should have been chocked; that the control surfaces of the airplane should have been locked; and that the defense that the accident resulted solely from an act of God because of the strong winds was not maintainable.

This Louisiana case simply points up the fact that even when the airplane is not being operated, liability from negligence can arise to the XYZ Company because of
the ownership of the Aztec. The plane should be secure every time it is parked, at least at an unattended airport.
CHAPTER IV

INSTRUMENT FLIGHT TO WASHINGTON, D. C.

Early in the morning on February 2, 1965, Robert Rex and the rest of the passengers, which arrived on the XYZ Corporation's Aztec, leave the motel for their conference which was scheduled while in Chicago. Homer Pilot stays at the motel until 11:00 a.m. Mr. Rex calls and informs Homer that he would like to leave for Washington, D. C., about 1:30 p.m. with all the passengers which arrived from Chicago.

Instrument Flight Rules Fuel Requirements

Homer has two and one-half hours to prepare his flight from Kansas City, Missouri, to Washington, D. C. Kansas City to Washington is approximately 820 nautical air miles. By using 55 per cent of the horsepower available in his engines, Homer knows that the range of the Piper Aztec B is 1,060 nautical miles at 9,000 feet above mean sea level.¹

¹Owner's Handbook, op. cit., p. 50.
The distance which the Aztec is able to fly has suddenly become very important. The weather report for the trip to Washington, D. C., indicates to Homer that he will be unable to fly under the Visual Flight Rules of the Federal Aviation Regulations because he will be flying in fog and in the clouds throughout almost all of the trip. This means that Homer has fuel requirements which must be met under the Federal Aviation Regulations.

"No person may operate a civil aircraft in IFR conditions unless it carries enough fuel (considering weather reports and forecasts, and weather conditions) to complete the flight to the first intended point of landing, to fly from that point to the alternate airport, and to fly thereafter for 45 minutes at normal cruising speed."  

At a cruising power setting of 55 per cent of the horsepower available in the Aztec, the Aztec has a cruising range of seven and one-half hours. At an altitude of 9,000 feet above mean seal level the Aztec has a cruising air speed of 156 nautical miles per hour. The United States Weather Bureau is forecasting

1Federal Aviation Regulations, op. cit., Section 91.23.
2Owner's Handbook, op. cit., p. 2 and p. 54.
3loc. cit., p. 49
an average tailwind from Kansas City to Washington, D. C., of 30 nautical miles per hour for the flight, because of a large low pressure area centered over northern Indiana and southern Michigan. This means that Homer may expect approximately a four hour and 30 minute flight to Washington, D. C., including the slower climb speed out of Kansas City to 9,000 feet. Under the above cited regulations, there must be an alternate airport, within two hours and 15 minutes of Washington, D. C., which is currently reporting weather of an 800 foot ceiling and two miles visibility with forecasts to get better.¹ The LaGuardia Airport in New York City is approximately 185 knots from Washington, D. C. The weather is clear in New York so Homer may use LaGuardia as his alternate to comply with the Federal Aviation Regulations.

¹Section 91.83 (b), Federal Aviation Regulations provides: "Unless otherwise authorized by the administrator, no person may list an alternate airport in an IFR flight plan unless current weather reports and forecasts indicate that, at the time of arrival, the ceiling and visibility at the airport will be at or above the alternate airport weather minimums prescribed for that airport in Part 97 of this chapter, or, if no minimums are so prescribed, the following weather minimums: (1) at an airport served by a radio with directional facility -- (i) ceiling 1,000 feet and visibility one statute mile; (ii) ceiling 900 feet visibility one and one-half statute miles; or (iii) ceiling 800 feet and visibility two statute miles."
Radio Receivers Checks

Now that Homer has determined that the weather is good enough and that he has the range capability on the Aztec to make the flight under instruments, he must now inspect the aircraft log book to find out whether his Omni Range Radio receivers are in proper working order before he may begin the flight. The Aztec Omni Range Radio receivers must have been recently maintained, checked, and inspected under an approved procedure or checked for their operation within the preceding ten hours of flight time and within ten days before the flight within the tolerances specified by the Federal Aviation Regulations.¹

Additional Instruments and Equipment for IFR

The Aztec must have the instruments and equipment necessary for Visual Flight Rules (day) and Visual Flight Rules (night) together with other instruments and equipment necessary for Instrument Flight Rules.²

Additional Pilot's Rating for IFR

For Homer to make this flight to Washington, he must have an instrument rating listed upon his commercial license.²

¹loc. cit., Section 91.25
²loc. cit., Section 91.33
Pilot Certificate or have an Airline Transport Pilot Certificate.

"No person may act as a pilot in command of an aircraft under instrument flight rules or in weather conditions less than the minimums prescribed for VFR flight unless he holds a current instrument rating or airline transport pilot's certificate."\(^1\)

Recent Experience Requirements for IFR

The recent flight experience requirements of the Federal Aviation Regulations also changes and is increased for a pilot for a flight under the Instrument Flight Rules. If Homer has an instrument rating endorsed upon his Commercial Pilot Certificate, he must have had at least six hours of instrument flight under actual or simulated instrument flight conditions within the preceding six calendar months.\(^2\) If Homer would upgrade his pilot certificate to an Airline Transport Pilot Certificate, he would need two hours of instrument flight time under actual or simulated instrument conditions within the preceding six months.\(^3\)

When a pilot is only qualified to fly under the

\(^{1}\text{loc. cit., Section 61.3 (e).}\)

\(^{2}\text{loc. cit., Section 61.47 (d).}\)

\(^{3}\text{loc. cit., Section 61.47 (e).}\)
Visual Flight Rules, he will undoubtedly become dis-orientated in bad weather when flying on instruments. This is exactly what happened October 5, 1953, after a takeoff from the Allegheny County Airport near Pittsburgh, Pennsylvania.¹ The pilot took off in a Beechcraft Bonanza for a trip to Cleveland. The weather at the point of takeoff was a ceiling of 1,800 feet and a visibility of four miles with light rain and haze. Apparently, the pilot ran into more severe weather conditions over the City of Pittsburgh, as he radioed the Allegheny Airport Tower that he was unable to obtain visual references and was going to climb through the overcast, when he was not instrument rated. Eighteen minutes after takeoff the plane crashed killing the pilot and his passenger.

The Third United States Circuit Court of Appeals held:

"The Civil Air Regulations, which were put into evidence in this case, prohibit flying under instrument conditions by a pilot without an instrument rating and without recent practice. A pilot without instrument qualifications must adhere to the visual flight rules. These prohibit flying when visibility is less than 1,000 feet. Additionally they

require that a visibility of three miles be maintained at all times while in flight and that the plane approach clouds no closer than 2,000 feet horizontally, 500 feet vertically under, and 1,000 feet vertically over...

The evidence shows that the necessity of prohibitions on flight under instrument conditions by unqualified pilots is dictated by the extreme likelihood of loss of control over the aircraft once visual points of reference become unavailable. This likelihood arises out of vertigo induced by the movements of the aircraft in which the pilot becomes disoriented in space to the point where he has difficulty in distinguishing between right and left and up and down. Normal sense perceptions are unreliable to the point of being actively misleading. The plane can quickly go out of control in such circumstances. Even if the pilot can recognize what maneuvers the out-of-control plane is performing his tendency is to over-correct. The consequence is for the plane again to go out of control, or if the correction is too violent resulting in an attempted maneuver for which the plane is not designed, to tear the plane apart in mid-air by reason of the extreme forces exerted on it...

The facts, however, demonstrate that (the pilot), wittingly or not, made a number of decisions involving bad judgment which set the stage for the ensuing tragedy... Over the city he made the grievous mistake of electing to go into the overcast in an attempt to climb through it...

The evidence would not support an inference that bad weather may have
closed in on him even though he was exercising due care for his own safety."

Instrument Flight Rules Cruising Altitude

Homer has filed an Instrument Flight Rules flight plan requesting Victor Airway 4 to Washington, D. C., at an altitude of 9,000 feet above mean sea level. Since the Aztec will be flying in an easterly direction under Instrument Flight Rules, the cruising altitude will be an odd flight level unless another altitude or flight level is assigned by Air Traffic Control.2

After Homer completes his pre-flight planning and inspection of the Aztec, Robert Rex and the four passengers arrive at the East Kansas City Airport. They are loaded into the airplane with their baggage. Homer calls the Kansas City Flight Service Station for Air Traffic Control Clearance.

Take-off

When Homer receives his Air Traffic Control Clearance from the Flight Service Station, he has completed the runup of the Aztec and is ready for takeoff. The weather at the East Kansas City Airport is a

1loc. cit., p. 604.

2op. cit., Section 91.121.
ceiling of approximately 500 feet and visibility of one mile.

A pilot who was attempting a take-off on a strange field with poor visibility (in much the same manner as Homer) and a clouded windshield was held to be negligent when he ran off the runway and crashed into a building. In this case, the pilot lined up his course for take-off down the runway by what he thought were the boundary lights which marked the eastern edge of the runway to his left. He began his take-off and rolled about 400 feet down the runway and ran into an unlighted power house which stood about 26 feet east of the eastern line of the runway. One of the passengers died.

The Virginia Supreme Court of Appeals held the pilot negligent on the following grounds:

"... the field was strange to him, the weather was foggy, the visibility poor, and his windshield so clouded he could not see through it, yet the defendant attempted to take off. He failed to line up his airplane properly with the lights of the runway, but instead set his course by light in a dwelling entirely off the runway. According to his own testimony, his attempt to follow this light caused his airplane to collide with the power house building, resulting in the tragic death of the plaintiff's decedent."\(^1\)

\(^1\)Walthew v. Davis, 201 Va. 557, 111 S.E. 2d 784, 1960.

\(^2\)loc. cit., p. 559
Homer takes off on runway 27 at the East Kansas City Airport and just has the airplane trimmed up as he enters the overcast. He makes the transition from visual reference using the horizon to the instruments of the Aztec. He turns to a heading which will intersect Victor Airway 4 and continues on his climb to 9,000 feet, conforming with his Air Traffic Control Clearance.

Homer may not take-off without an Air Traffic Control Clearance.¹ Neither may Homer deviate from the Air Traffic Control Clearance for the instrument flight except in emergency.²

Turbulence In Clouds

If the air becomes rough on this flight along Victor Airway 4 because of rather severe up and down vertical wind currents, Homer may have a duty to reduce the speed of the Aztec. The Missouri Supreme Court has so held.³ This case held that it was negligent to either fly into a violent storm or to fail to reduce the speed of the aircraft in flight while passing through a violent storm.

¹Federal Aviation Regulations, op. cit., Section 91.115.
²loc. cit., Section 91.75.
Icing Conditions

If the weather bureau has informed Homer that icing conditions are forecast to prevail in the clouds, Homer may have been negligent in taking off if the Aztec is not equipped with de-icing boots on the wings and appendage and anti-icing slinger rings on the propellers. Even if icing was not forecast Homer may have been negligent if he did not turn around and proceed back to Kansas City Airport and land, if he encountered icing conditions.

On January 21, 1962, an Aero Commander, Model 680, crashed at Erie, Pennsylvania, due partially to ice formations on the wings when the airplane was not equipped with de-icing equipment and due to the poor flying practice on the part of the pilot.¹ The airplane had taken off from Buffalo, New York, enroute to Meadville, Pennsylvania, at approximately 3:25 in the afternoon. Immediately upon entering the overcast, ice began to build up on the airplane and became rather severe by the time the airplane reached Erie Pennsylvania.

The United States Western District Court of Pennsylvania held:

"... the negligence of the pilot commenced at take-off and continued throughout the flight. ... from the evidence it is undisputed that ice on an aircraft during flight is dangerous in that it interferes with the controls. ... the pilot... failed in his duty to exercise reasonable care in making his plans for the flight, and thereafter during the course of his flight in failing to return to Buffalo when he had the opportunity to do so ... the first point is sufficient to hold the defendant responsible for the crash."1

Navigating On Course

Not only do the Federal Aviation Regulations provide that Homer must stay on course and at his assigned altitude while flying Victor 4 to Washington, but it may also be evidence of common law negligence that Homer strayed from course in addition to the violation of the Federal Aviation Regulations.2

When a plane operated by Northwest Airlines on an instrument flight plan from Anchorage to Fairbanks, Alaska, deviated from course some 40 miles and changed

1loc. cit., p. 17,318.

2Section 91.123, Federal Aviation Regulations provides: "Unless otherwise authorized by ATC, no person may operate an aircraft within controlled airspace, under IFR, except as follows: (a) On a Federal Airway, along the center line of that airway."
its altitude from 9,000 feet to 11,000 feet, the Minnesota Supreme Court held that "the total lack of evidence to explain why the plane left the beamed airway would indicate that the pilot's action in this connection was deliberate." The court went on to hold that there were sufficient evidences of negligence on the part of the pilot flying for the defendant airlines to require submission of the issue of due care to the jury.

State Statutes and Local Ordinances

During this flight, the Aztec will be flying over Missouri, Illinois, Indiana, Kentucky, West Virginia, and Virginia. As the statutes of Missouri, Illinois, and Indiana have been considered before, Kentucky is the only state that needs to be considered at this point for the other state statutes will be taken up in the next chapter.

Kentucky has no statutes passed by the Kentucky legislature relative to the regulation of flying itself. There may be local ordinances on this matter, but these would not affect this flight over the state unless Homer would decide to land at some airport within Kentucky.

As the Aztec approaches the Lexington, Kentucky, Omni Radio Range transmitting station, it is no longer flying in the clouds but is on top of the overcast to Charleston, West Virginia. The visibility is excellent and Homer is still maintaining 9,000 feet when he reports being over Lexington radio to Air Traffic Control. While the Aztec is clear of the clouds, Homer has the duty to maintain air traffic separation under the right-of-way rules for visual operation, even though Homer is on an Instrument Flight Plan.\(^1\) Flying under an Instrument Flight Plan only relieves Homer of the responsibility of conforming with the basic Visual Flight Rules weather minimums.\(^2\) Even though Homer has the duty of flying along the center line of Victor Airway 4, as set forth above, this part of the regulations provides for encountering aircraft under visual conditions.

"However, this section does not prohibit maneuvering the aircraft to pass well clear of other air traffic or the maneuvering of the aircraft in VFR conditions, to clear the intended flight path both before and during climb or descent."\(^3\)

\(^1\)op. cit., Section 91.67

\(^2\)loc. cit., Section 91.105.

\(^3\)loc. cit., Section 91.123
An Instrument Flight Plan was filed by United Airline's flight 736 from Los Angeles to Denver on April 21, 1958.¹ This flight plan called for using Victor 8 at an altitude of 21,000 feet with a true airspeed of 305 nautical miles per hour. United's flight 736 left the Los Angeles International Airport at 7:37 a.m.

At about 8:30 a.m., an Airforce F-100 and United's Douglas DC-7 collided at an altitude of 21,000 feet within the confines of Victor Airway 8. The Airforce jet converged upon the DC-7 which was to the right of the jet. The jet passed in front of the nose of the DC-7 and the right wing tip of the jet made an impact with the right wing tip of the DC-7. At the time of the accident, the Airforce jet was practicing teardrop instrument penetrations with a student under a hood in the rear cockpit and unable to see outside. An instructor occupied the front seat and had the responsibility of maintaining a visual lookout for other aircraft.

The jury found that United's crew of the DC-7 on flight 736 was negligent. This was affirmed by

the Ninth United States Circuit Court of Appeals.

This court held:

"The legal obligation of the DC-7's crew to see and avoid the jet, under the optimum visual conditions then existing, is clear; responsibility for the separation of two aircraft flying in visual flight rule weather, regardless of the type of flight plan or air traffic clearance, rests directly upon the operating personnel of the respective aircraft."¹

Before the Aztec reaches Charleston, West Virginia, and re-enters the overcast, Homer notices a Cessna 310 coming toward him at the same altitude and in the same direction on a collision course. Homer has the duty to maintain sufficient lookout and avoid conflicting traffic in time to prevent the necessity of his taking violent maneuvers to avoid a crash which may injure the invitee-passengers of the XYZ Corporation.

In George v. American Airlines, Inc.,² the United States Seventh Court of Appeals held that American Airlines was liable to the plaintiff -- George for injuries he received when the pilot of the American Airlines plane pushed his plane into a 500 foot dive without warning to the passengers. George, who was a passenger, was thrown from his seat and about the airplane. The trial court found that in spite of the unlimited visibility, neither pilot nor any other occupant of either

¹loc. cit., p. 17,132.
²27 Avi. 17,647, 1961.
plane spotted the other plane until a collision imminent; that had the proper lookout been maintained and considering the conditions of visibility, it would have been possible to visually observe another plane at a distance of approximately 10 miles.

The Seventh Circuit Court of Appeals affirmed the trial court's conclusion of negligence because the crew of American Airlines had the duty to maintain a lookout and should have seen the Airforce C-47 military airplane at least seven to ten miles before the collision became imminent. The court went on to say that:

"There was evidence to sustain the finding that had defendant's employees maintained a proper lookout, the military plane would have been observed in time to have avoided the sudden dive resulting in the injuries to George."¹

Clearance for an Approach

The Aztec again enters the cloud formation just after crossing the Charleston, West Virginia, Omni Range Radio transmitter. The XYZ Corporation airplane continues to Herndon Omni Range Radio in the clouds which is 22 nautical miles from the Washington Omni Range Radio transmitter. Washington approach control

¹loc. cit., p. 17,648.
gives Homer an Air Traffic Clearance to descend to 2,000 feet above mean sea level and fly directly to the outer marker of the Instrument Landing System for Washington National Airport for an Instrument Landing System approach when the weather is reported to be 300 foot ceiling and one mile visibility with no wind.

In Berner v. British Commonwealth Pacific Airlines, Ltd., Air Traffic Control gave a Douglas DC-6 pilot the following clearance:

"ATC clears WHBPE to the San Francisco ILS outer marker via the Half Moon Bay Fan Marker direct to the San Francisco ILS outer marker. Maintain at least 500 feet above all clouds. Contact San Francisco Approach Control after passing the Half Moon Bay Fan Marker. Cloud tops reported in Bay area 1,700 feet."

This clearance was acknowledged by the Commonwealth Pacific Airlines pilot. The DC-6 crashed into Kings Mountain about ten and one-half miles from the ILS outer marker. The airplane and the ground transmitter were all functioning normally.

After an extended review of the evidence the United States District Court for the Southern District of New York held:

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18 Avi. 17,781 at page 17,783.
"That the pilot intentionally did an act can hardly be disputed. He was directed to stay 500 feet on top of all clouds. Well, he didn't. He got down into the cloud cover, and, of course, he knew he was in them.

He, also, was directed to fly from the Half Moon Bay direct to the ILS outer marker. Well, he didn't do that either. With the evidence in this case, he must have known that he was not following that clearance.

He, also, was directed to cross the ILS outer marker at 500 feet on top. There is nothing more clear in this case than that he didn't do that either. He couldn't have received the signals from both the marker beacon transmitter and needle reversals on the compass locator transmitter anywhere near the crash site.

And everyone agrees that it was a violation of his clearance to let down into the clouds without receiving the signals.

He, also, violated safety regulations, in what he did, and, again, he must have known it...

What the pilot did involved an easy perceptible danger of serious bodily harm, or death, and the chance that it would result was very great. There was a high degree of probabilities that it would result."

Homer follows his clearance, descends to 2,000 feet and flys by use of his automatic direction finding equipment to the outer marker locator. Since the weather at

1loc. cit., p. 17,804.
Washington National Airport is above the prescribed minimums, he enters the prescribed holding pattern waiting for further clearance for the Instrument Landing System approach to runway 36.

The Aztec must complete the approach to runway 36 without incident or liability may arise for any injuries suffered by others. The Doctrine of Res Ipsa Loquitur may help give rise to liability on the part of the XYZ Corporation.

This is exactly what happened on December 16, 1955, when an Eastern Airlines passenger plane crashed as it was making an Instrument Landing System approach to the Imeson Airport at Jacksonville, Florida.\(^1\) All aboard were killed. The place of the crash was about three-quarters of a mile from the runway and two to three hundred feet to the left of the approach line.

The United States Court of Appeals for the Second Circuit held:

"The Civil Air Regulations and the pilot's flight operation manual, which were introduced in evidence over the appellant's objection, provided the proper standard of care

\(^1\)Citrola v. Eastern Airlines, Inc., 6 Avi. 17,328, 1959."
under the circumstances, and the substance of a relevant portion of these documents is to the effect that the pilot was prohibited from descending below the prescribed glide path and the minimum altitude of 200 feet unless he could see where he was going. If conditions did not permit such observation, the pilot was required to execute a missed approach procedure, fly up out of danger, and make a new approach.  

There was evidence in this case that the fog at Jacksonville was down to the tops of the trees 60 to 75 feet high. The plane was seen coming in at tree-top level. The court felt that these facts together with the Doctrine of Res Ista Loquitur was sufficient to present the case to the jury for a finding of negligence because the airplane was under the exclusive possession and control of Eastern Airlines. The accident would not ordinarily have occurred without the negligence of the pilot. Therefore, the burden of proving that the accident was not caused by the negligence of the pilot was upon Eastern Airlines.

Homer receives clearance from approach control for an Instrument Landing System approach. He makes the approach by using the standard instrument approach procedure published under charts for the Washington National Airport pursuant to Part 97 of the Federal

1loc. cit., p. 17,328.
Aviation Regulations. After landing at the Washington National Airport, Homer taxies to Butler Aviation where an attendant ties the airplane down. All of the passengers of the Aztec go to the Pentagon Motel and check in.
CHAPTER V

THE TRIP HOME

The Aztec departs Washington, D.C., at 2:00 p.m., February 3, 1965. Homer has filed a Visual Flight Rule flight plan for Victor Airways 8,92 and 30 to Kalamazoo for 6,500 feet. At the time he filed the flight plan, the United States Weather Bureau reported that none of its reporting stations enroute were advising that instrument flight conditions existed. Snow was forecast for northern Ohio and southern Michigan to begin in the middle of the afternoon.

Visual Flight Rule Altitude Regulations

As Homer leaves Martinsburg, West Virginia, the ceiling begins to lower and he decides to fly underneath. Homer continues to descend until he is down to 3,000 feet above mean sea level which barely clears the tops of the mountains in that area. This is not necessarily a violation of the Federal Aviation Regulations because Homer only has to maintain an even altitude plus 500 feet when he is 3,000 feet or more above the surface of the earth.¹ This could also be a minimum safe altitude

since these mountains are not a congested area. However, such an altitude could be common law negligence, regardless of the regulations.

In this area of the mountains, there are aerial spans that run from mountain top to mountain top. These consist of power lines, telephone lines, road bridges, railroad bridges and pedestrian scenic walkways. Homer could be found negligent as a matter of law if one of these aerial spans were struck by the aircraft while he was flying at this altitude.

In El Paso Natural Gas Company v. United States, the Ninth Circuit United States Court of Appeals held that a pilot who contemplated a low level coastal flight, but who failed to familiarize himself with the area to be overflown was negligent and his misconduct approximately contributed to the collision of his aircraft with an aerial span. The court went on to say:

"Death has sealed the pilot's lips.

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1 op. cit., Section 91.79(c): "Except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes: (c) an altitude of 500 feet above the surface, except over open water or sparsely populated areas. In that case, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure."


3 loc. cit., p. 17,487.
We know not what he did, but what he did not do is deductible from the evidence and from the facts which the court may judicially know. The existence of the span was not indicated on any aeronautical chart. Indeed, wires of this type and elevation were not generally depicted on such charts. The fact that such terrain hazards were not so indicated made it imperative that he make inquiry of sources other than his charts.

The court is of the opinion that a prudent pilot contemplating a low level coastal flight of the nature herein involved and exercising the requisite care for his own safety would have made inquiry at the Port of Angeles or Forks Airport or of the Coast Guard at La Push, all of which had established personnel, which were fully cognizant of the fatal hazard.

In view of Section 60.11 of the Civil Air Regulations, the court finds that the pilot's failure to adequately familiarize himself with the area to be overflown constituted contributory negligence per se and that such misconduct proximately contributed to the accident."

As the Aztec nears Pittsburgh, the cloud ceiling rises. Homer climbs back up to 6,500 feet. The air traffic at Pittsburgh is very dense. Homer not only has the duty to maintain a lookout for this traffic, but he must not wait until the last minute to take evasive action to avoid a mid-air collision. If he sees another airplane on a collision course, he must act then and not wait to make a violent movement to avoid striking another aircraft on a collision course with the Aztec.
Avoiding Collisions

A situation occurred where a Northwest Airlines Lockheed Electra aircraft owned and operated by Northwest Airlines took violent evasive action by going into a steep dive in order to avoid a mid-air collision with an Air Force B-47 on November 3, 1960. The passengers in the Lockheed Electra did not have their seat belts fastened. The pilots for Northwest Airlines had observed the Air Force B-47 for quite some time before it turned on a collision course with the Lockheed Electra. After the Air Force B-47 turned on a collision course, the pilots for Northwest Airlines had an opportunity and did observe the bomber for 40 or 45 seconds prior to the time the Northwest Airlines Captain put the airliner into a steep dive without advising his passengers of the impending difficulties or to fasten their seat belts. Cattaro hit his head on the ceiling of the airplane and suffered severe personal injuries.

The United States District Court for the Eastern District of Virginia held:

"Waiting until the last second before

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2 loc. cit., p. 17,474.
attempting to get out of the way of an oncoming airplane is not such care, albeit he had the right-of-way.

'No person shall operate an aircraft or permit it to remain in such proximity to other known aircraft as to create a collision hazard. CAR 6Q15.'

The negligence of the Northwest pilot contributed to the near miss.

The failure of the Northwest pilot to light the fasten-seat-belt sign in the airliner as soon as he sensed, or should have sensed, the probability of the necessary disruptive (to the passengers) evasive action contributed to the injuries sustained by the plaintiff."

The Unscheduled Landing

As Homer approaches the Mansfield, Ohio, Omni Range Radio transmitter on Victor Airway 8, it begins to snow. The further he goes, the more it snows. Homer elects to descend so that he is able to maintain Visual Flight Rules visibility. At Mansfield, Homer turns on to Victor Airway 92. He crosses the Attica, Ohio, Omni Range Radio transmitter at 500 feet above the ground, but as he leaves Attica the snow gets heavier. He is now so low that he is unable to contact one of the Federal Aviation Agency’s Flight Service Stations by radio to file an Instrument Flight Rules flight plan. Very High Frequency radio will not follow the curvature of the earth. Thus, he can not receive an Air Traffic Control Clearance to go on instruments. Homer decides to land at the Progress Airport which
is approximately halfway between Attica and Waterville Visual Omni Range Radios and a little to the east of Victor Airway 30. He misses the airport and is flying back and forth at a low altitude in the snow attempting to locate the Progress Airport. If anything should happen, this type of flying could be evidence of negligence on Homer's part.

In Culver v. Sekulich, the Wyoming Supreme Court held that when a pilot of a Beechcraft twin engine Bonanza airplane crashed October 29, 1956, on a trip from Newcastle, Wyoming, to Billings, Montana, the fact that the plane was flying back and forth apparently looking for an airport at very low altitudes when the visibility was restricted by snow varying between 300 yards and a mile and a half was evidence of negligence on the part of the pilot. The court went on to hold that the failure to use other available airports to make a landing and the other violations of the Civil Aeronautics Regulations demonstrated that the twin Bonanza was being operated without due care.

Homer finds the Progress Airport. He circles the airport to check the wind direction and for traffic. The airport is covered with snow. He is making an unscheduled landing so he has not checked the Notices to Airmen on the

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Progress Airport in the Airmen's Information Manual. Neither is Homer able to call a Flight Service Station on his Very High Frequency radio because he is too low. From the air it is impossible for Homer to determine the depth of the snow. He is unable to raise anyone at the Progress Airport with his Unicom radio frequency. Homer decides to land.

Homer's concern with respect to the condition of the runways on the Progress Airport could make him negligent in the operation of the Aztec so that he was not maintaining proper lookout, management and control of the airplane or might violate the Civil Aeronautics Regulations in landing at a non-controlled airport. The Federal Aviation Regulations provide: "When two or more aircraft are approaching an airport for the purpose of landing, the aircraft at the lower altitude has the right-of-way, but it shall not take advantage of this rule and cut in front of the other aircraft which is on final approach to land or to overtake the aircraft".  

When a Cessna 195 had a mid-air collision with a Cessna 210 which was ahead and below it on final for a runway at the Flying Cloud Airport near Eden Prairie, Minnesota, on February 21, 1961, the United States District Court for the District of Minnesota upheld the

\[\text{\textsuperscript{1}}\text{op. cit., Section 91.67 (f).}\]
findings of the jury that the operator of the Cessna 195 was negligent.

Both pilots were killed. Both planes were demolished. The testimony tended to show that the Cessna 210 was making a final approach for a landing at a speed between 80 and 90 miles per hour. It was hit from the rear and from above by the nose of the Cessna 195. Even though the jury did not answer a question in a special verdict relative to the negligence of the pilot of the Cessna 210, the court held that the jury reached permissible and consistent findings supported by substantial evidence which required the entry of a judgment against the owner of the Cessna 195.

When an aircraft accident occurred as a result of landing at an airport covered with heavy snow, the pilot of the aircraft was found to be flying the airplane with want of due care. The New York Supreme Court held in this case that the safe landing of an aircraft is the sole responsibility of the pilot. The facts showed that the pilot had failed to call anyone to check ground cover conditions at the airport on the day of the accident and neglected to obtain information which was available to him.

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The nearby weather station has recorded and reported approximately 13 inches of snow. The Airmen's Guide indicated that the airport was attended in summer only. Therefore, by making a landing and having an accident under these circumstances, the pilot was guilty of negligence.

Obeying Air Traffic Control Clearance

Homer lands in a light snow cover at Progress Airport. He calls Mansfield Flight Service Station, files an Instrument Flight Rules flight plan and is cleared by Air Traffic Control to Waterville Omni Radio Range via Victor 30 at 4,000 feet. At Waterville Omni Radio Range, Homer is told to hold until he receives further clearance from the Cleveland Center Air Traffic Control.

If the Aztec should proceed beyond this hold point in violation of the Federal Aviation Agency Air Traffic Control Clearance and has a mid-air collision, this would be a negligent act for which the XYZ Corporation could be held liable in damages. This is exactly what the New York Supreme Court held in Kamlet v. United Airlines, Inc., and Transworld Airlines, Inc.,¹ as a result of the Staten Island Disaster. The court held that an aircraft may not proceed beyond the holding point specified in its Air Traffic Control Clearance without the pilot be chargeable for

¹8 Avi. 18,394, 1964.
flying with want of due care.

Short Field Take-off

When Homer takes off from Progress Airport, he decides to use a shorter runway which is more into the wind, by using a short field take-off procedure. Depending upon the amount of crosswind on the longer runway, this act on the part of Homer could be found to be pilot error by the courts. The California District Court of Appeals\(^1\) has held that when an airplane crashed shortly after take-off, the choosing of the short runway under the conditions present on that day constituted pilot error. The court ruled that the pilot was also negligent in pulling the ship off the ground before it had flying speed. Even if the plane had been suffering from engine trouble, the court decided the pilot was negligent in not landing straight ahead in an open field at the end of the runway, rather than attempting to turn back to the airport.

Homer takes off, climbs to 4,000 and proceeds to Waterville Visual Omni Range Radio. At Waterville, he has to hold for 12 minutes for other traffic at the direction of an Air Traffic Control Clearance received from Cleveland Center. This would mean that Homer would have

\(^1\)United Air Services v. Sampson, 1 Avi. 797, 1938.
to make three standard holding patterns of four minutes each to use up the 12 minutes before he departed Waterville Omni Range Radio. Homer must follow the holding pattern because of conflicts with other air traffic over this radio transmitter. Cleveland then clears the Aztec to Kalamazoo via Victor Airway 30.

Kalamazoo Approach

When the Aztec is near the Kalamazoo Omni Range Radio, Homer calls Battle Creek Approach Control for further clearance to land on the Kalamazoo Municipal Airport. The weather at Kalamazoo is 1,000 foot ceiling with three miles visibility with haze and fog. The clearance for an approach by Battle Creek Approach Control does not relieve Homer of the duty to maintain a reasonable lookout.

In United States v. Terminal Flour Mills Company, the Ninth United States Circuit Court of Appeals held that the pilot of a Beechcraft which struck a Cessna involved in student instruction was negligent even though the visibility was restricted because of weather. The Cessna was practicing take-offs and landings with a right traffic pattern at Boeing Field near Seattle, Washington. The

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2 7 Avi. 18,244, 1962.
Court held:\(^1\)

"The basic facts as to the relative positions of the aircraft immediately prior to the collision are not in dispute. This Cessna approached the point of impact from the right of Miller's Beechcraft and turned to a course approximately parallel to that of the Beechcraft. The Beechcraft overtook the Cessna, the right wing of the Beechcraft striking the left wing of the Cessna from the rear.

It follows that, both as the aircraft on the right, and the overtaken aircraft, the Cessna had the right-of-way over the Beechcraft, providing that under the circumstances then existing, the right-of-way rules referred to above were applicable.

... the air traffic rules in question 60. 14 (b) and (d) provides 'right-of-way rules do not apply when, for reasons beyond the pilot's control, aircraft cannot be seen due to restrictions of visibility' ...".

The court reached the conclusion that a pilot is bound by the Air Traffic Rules which require pilots to maintain a reasonable lookout even though visibility may be restricted by weather. Miller should have looked thoroughly and diligently in the area which the Cessna was flying. This is the degree of care required of the ordinarily prudent pilot and is the standard imposed by the Air Traffic Rules.

Wingtip Vortexes

When Homer is cleared to the outer marker of the In-\(^2\)loc. cit., p. 18,246.
strument Landing System, he is immediately cleared to begin his approach to the Kalamazoo Airport. As Homer follows the glide scope down to near the middle marker, he is now free of the clouds and sees a DC-6 which has been cleared to take-off before he lands.

This take-off by the DC-6 may create a very dangerous hazard to the Aztec which is about to land right in its wake. In the past, the turbulence behind an airplane taking off was known as "propeller wash". But it has now been determined that a greater portion of the turbulence is generated by a passage of air over and around the wing tips, resulting in a highly disturbed condition identified as a vortex at each tip.¹

It is possible for the motion of this twisting air to be severe enough that an aircraft entering its path will have insufficient control to overcome its effects. Further, it is possible for the loads which the turbulence will impose to be above those for which the aircraft is designed. Therefore, an airplane may be thrown into an attitude from which recovery cannot be made if insufficient altitude is available, or it may suffer structural damage which will make control impossible. Homer may be wise to execute a 360 or 720 degree turn rather than en-

counter the turbulence of the DC-6 with the permission of the Kalamazoo Control Tower.

In Johnson v. United States, a pilot of a licensed plane, who had been cleared to land by the Omaha Tower Personnel behind an Air Force B-47 Bomber, was held to be negligent and breached his duty of due care because "the pilot of the Cessna had sufficient time to make any adjustments in his flight pattern with respect to the predictable path travelled by the B-47 that would insure the safe landing of his plane". The pilot crashed because of the vortex air currents from the B-47.

Propeller Setting

If Homer does make a 360 degree turn to avoid the turbulence of the DC-6, he should have the propellers of the Aztec in low pitch rather than high pitch. The Montana Supreme Court has held when an accident occurred as a result of a 360 degree turn at a low altitude with the propeller in low pitch by a Beechcraft Bonanza:

"The evidence warranted a finding that the pilot Strum approached the landing strip with the propeller in high rather than low pitch; that a pilot has more control of his plane in low pitch rather than high pitch; that low pitch is much the same as an automobile in low gear;

16 Avi. 18,111, 1960.

that a pilot has more power at his disposal when the propeller is in low pitch and can make an immediate takeoff more easily.

There was ample evidence to sustain a finding that pilot Strum did not shift his propeller from high to low pitch when landing, and to sustain a finding of negligence in this regard and that such negligence was the proximate cause of the crash."

Homer completes his 360 degree turn and lands on Runway 35 at the Kalamazoo Municipal Airport. He turns off the runway and is instructed by Ground Control to proceed to his hangar. The trip from Kalamazoo to Chicago, Kansas City, Washington, D.C., and back to Kalamazoo has been completed.
CHAPTER VI

LIABILITY INSURANCE

The Need for Insurance

The trip from Kalamazoo to Chicago, Kansas City, Washington, D. C., and back to Kalamazoo by the XYZ Corporation's Aztec, together with the case examples cited therewith, amply demonstrate the need for liability insurance by the XYZ Corporation. Since the Doctrine of Respondeat Superior imposes liability upon the corporation for the authorized acts of its agents or negligence of its employees within the scope of their employment, the XYZ Corporation and companies operating airplanes for business purposes must protect themselves from damage claims by liability insurance contracts.

One author has said in relation to liability insurance:

"Liability insurance is an outgrowth of, and is in fact an inevitable result of, those legal relationships in society which permit the bringing of successful law suits against individuals for negligence. This is a key factor in understanding the scope and the reasons for their liability contracts... as it became recognized that inexcusable negligence
formed the basis for a damage suit based on tort, a demand arose for some protection against the financial consequences of such suits...

The seriousness of the need for liability insurance did not become widely apparent in the United States until a highly industrialized economy began to emerge around 1900. At this time juries began to realize that if a person were permanently injured, it meant a definite, calculable loss in money to the individual concerned. Since then, as we have seen, demands for higher amounts of compensation have steadily increased, which along with the mounting costs of legal defense, may result in a financial loss amounting to thousands of dollars. The amount of these claims are determined mainly by the actual damage done and not by the ability to pay of the tort-feasor, as the defendant in such actions is called. In other words, the impecunious circumstance of the tort-feasor, while it may discourage a suit in the first place, does not put a limit on the amount of damages which may be assessed. Once a judgment is handed down, the plaintiff may use any available legal means to collect it, such as obtaining a lien on the property or upon the salary of the unfortunate defendant. The judgment may usually be renewed over the years until it is finally paid. Thus, one accidental slip or monetary failure may mean a lifetime of payments in liquidating a judgment. Even bankruptcy is not always a way out. Not only does bankruptcy cast a cloud on the otherwise good credit standing of a person, but it is also unavailable in cases of debts owed for wilfully inflicted personal injuries. While it may not appear that an accidental but negligent injury is 'wilful,' nevertheless, courts have been known to
interpret as 'wilful' negligent acts which laymen would classify as just another accident with no malice aforethought. Thus, among the evils facing the tort-feasor, leaving the country may seem the least undesirable."

Importance of Liability Insurance

For the executive who acts as the insurance manager for a corporation, insurance is a financial function, in a sense, though it has other aspects as well. This corporation executive must endeavor to look ahead and make plans which will be adequate for any emergency to the extent the resources of the corporation permit. Thus, one of his primary responsibilities is to conserve the existing assets and capital for the benefit of the stockholders of the corporation. This is precisely the most important function of liability insurance protection.2

Stated in another manner, the function of insurance is to provide financial certainty. If corporate management could know in advance exactly all of its costs in operating its business, it could carry on the enterprise without the need of insurance. A problem is created by


the fact that liability may arise and no one can know in advance whether or not it will. The business of liability insurance undertakes specific perils through the shifting of the burden of risk from the shoulders of the corporation to another corporation more willing to bear it.

"When we consider the nicety with which modern business is conducted; the smoothness of operation of the vast, intricate, and delicately balanced system of credits and exchanges; the huge sums of capital invested in every conceivable enterprise, with trade, commerce, and industry bursting through the narrower confines of the past and expanding to ventures whose sizes seem limitless ... in considering these, we pay no undeserved tribute to the science of insurance if we attribute to it a fair share of the credit for the successful operation of this complex modern business structure."^1

Bodily Injury Liability, Excluding Passengers

The executive that negotiates an insurance contract with an aviation insurance company for business aircraft must keep in mind that there are no standard policy forms such as there are in fire and auto casualty insurance. The number of policies issued must not

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be great enough for the insurance commissioners and insurance department of the various states to become interested in standardization of the aircraft liability insurance policies. Therefore, the executive purchasing liability insurance must negotiate each and every clause in order to properly protect his company and obtain the coverage for which he is paying.

One policy provides:

"COVERAGE A -- Bodily Injury Liability (Excluding Passengers)

To pay on behalf of the Insured all sums which the Insured shall become legally obligated to pay as damages because of bodily injury, sickness or disease, including death at any time resulting therefrom, sustained by any person, excluding any passenger, caused by an occurrence and arising out of the ownership, maintenance or use of the aircraft."

It will be noticed that the policy assumes liability imposed by law caused by an "occurrence" arising out of the ownership, maintenance, or the use of the insured aircraft. This is in contrast to the ordinary automobile policy which usually provides liability protection when an injury is attributed to an accident. The substitution of the term "occurrence" for "accident"

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\[1\] Form of Insuring Agreement, Airway Underwriters, Ann Arbor, Michigan, p. 1.
is apparently intended to broaden the coverage of the insurance policy.

Actually, the term "occurrence" literally means an event. But this is limited by the definition in the policy. The word "occurrence" whenever used in the policy means "an accident, or continuous or repeated exposure to conditions, which results in an injury during the policy period, provided the injury is accidentally caused."¹ The requirement that the accident be accidentally caused is designed to exclude claims resulting from the wilful intent of the insured to cause bodily injury or property damage to the third person.

Passenger Bodily Injury Liability

The liability insurance contract should provide substantially as follows:

"To pay on behalf of the Insured all sums which the Insured shall become legally obligated to pay as damages because of bodily injury, sickness or disease, including death at any time resulting therefrom, sustained by any passenger, caused by an occurrence and arising out of the ownership, maintenance or use of the aircraft."²

¹loc. cit., p. 3.
²loc. cit., p. 1.
The reader will notice that the above clause is identical in wording with the bodily injury quoted paragraph. The word "passenger" is substituted for the phrase "person, excluding any passenger." A principal reason for separating the coverages is to be found in the fact that the seating capacity in a plane varies more than with an automobile. Therefore, the premium is based upon seating capacity and the passengers are covered separately by the insurance policy. This practice differs from the ordinary automobile liability insurance policy in that it allows different limits for each of the coverages.

Property Damage Liability

The ordinary coverage clause for property damage liability is as follows:

"To pay on behalf of the Insured all sums which the Insured shall become legally obligated to pay as damages because of injury to or destruction of property, including the loss of use thereof, caused by an occurrence and arising out of the ownership, maintenance or use of the aircraft."  

This clause would provide substantially the same protection as a liability insurance policy on an automobile. You will note that the term "occurrence" is

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1loc. cit., p. 1.
still being used in this clause. Many liability pol-
icies are written on a "caused by accident only"
basis. This may be less than complete coverage unless
written on "occurrence" basis.

Although this paper is limited to tort liability
arising from negligence, it is interesting to note that
the coverages quoted above for liability are broad
enough to cover the liability of the company arising
from all torts, except injuries to persons or property
which would be intentionally caused by the insured or
its agent. Thus, if Homer Pilot would become angry
with the airport manager and try to run him down with
the Aztec, any injuries to the airport manager would
not be covered by such a definition of "occurrence."
Legal liability may arise because of a law suit being
instituted on the theory of nuisance, trespass or be-
cause state statutes impose liability regardless of
negligence.

At the date of this writing, there is apparently
no court case in which the insurance company has re-
fused to defend an aviation liability insurance claim
on the grounds that the liability was not covered with-
in the terms of the policy. This does not mean, however,
that many insurance companies have not used this, and
it has been accepted or not contested by the insured.
Therefore, no law suits have been instituted on this
Definition of Insured

With respect to the definition of the insured under an aircraft liability policy, the broadest clause, in this respect, to be found in any insurance contract is as follows:

"With respect to the insurance provided under Coverages A, B, C and D, the unqualified word "Insured" includes the named insured and if the named insured is an individual, his spouse if a resident of the same household, and also includes any person while using the aircraft and any person or organization legally insured for the use thereof, provided the actual use of the aircraft is by the named insured or such spouse or with the permission of either." ¹

Other policies limit the insured to that person or corporation who purchased the insurance policy. There are many variations of this, but many, if not most, insurance companies will name the insured and provide coverage such as: "any commercial pilot with a minimum of 500 flying hours." Very few liability aircraft insurance policies provide for coverage of another pilot with the aircraft being used by the permission of the insured. This is a major distinction

¹ibid.
between aircraft liability insurance and automobile liability insurance. Probably because of this difference, a number of cases have arisen on this point.

In Smith v. Orion Insurance Company, the Tenth Circuit Court of Appeals affirmed the directed verdict of the trial court for the insurance company on the ground that the helicopter which crashed had been piloted by one other than the pilot named in the insurance policy. The insurance policy contained a provision whereby the helicopter was to be piloted only by the pilot named in the policy. The pilots were named in this policy for the purpose of premium computation. Such policies are referred to as named-pilot policies.

In another aviation insurance policy issued by the Federal Insurance Company, the policy covered "any duly certificated private pilot or better, licensed by the Civil Aeronautics Administration, who has at least 250 hours total flying time, 25 hours of which have been in Beech Model 35 Aircraft."2

The Massachusetts Supreme Judicial Court held


in this matter that it was a question for the jury whether or not the pilot had 250 hours of flying time. If the jury found that the pilot did not have the proper amount of flying time the verdict should be for the defendant insurance company.

When an aircraft insurance policy provided affirmatively that it would apply only while the plane was being flown by pilots in their regular employ of the insured and approved by the Aviation Managers and who held requisite United States CAB Certificates or comparable licenses issued by Colombian Air Authorities, the court held that liability of the insurance company was excluded when an accident occurred and neither the pilot nor the co-pilot qualified under the terms of the insurance policy. ¹ The Fifth Circuit Court of Appeals said:

"These matters are of no consequence because, in our judgment, this claim for this period of time was no longer covered. . . the owner, again by voluntary and conscious action, put it into service in which it knew the plane would be operated in part at least, by pilots or co-pilots not holding Colombian licenses and would be engaged in a service having hazards and risks quite different from those of a Colombian Air Freight Carrier. . .

The result of this was to change altogether the whole character of the risks which were underwritten. With these major changes between the nature of the exposure undertaken and that which the assured's voluntary conduct precipitated, it will not do for the assured to say that with respect to this loss these admitted violations or actions were of no consequence."

As will be noted from this quotation, the court seemed to be quite strict in enforcing policy provisions which change the risk that the insurance company has undertaken. This is especially pointed up in a case where the court held the coverage of an insurance policy was validly suspended even though the helicopter crashed after the regular pilot took its controls. The court declared that the helicopter crashed as a result of a student pilot putting the craft into a precarious position. The coverage was suspended and was not reinstated by the fact that the regular pilot took control of the helicopter and attempted to right the aircraft before it crashed. The United States District Court for the Western District of Virginia went on to say:

1loc. cit., p. 18,097.

"It is well settled that when the coverage of an insurance policy is validly suspended that the coverage is not reinstated if anything has taken place while the insurance was suspended that would increase the insured's risk of loss... in this case it cannot be successfully contended that nothing had happened while the coverage was suspended that would increase the insurer's risk."\(^1\)

If an aircraft has an accident, but there is no causal connection between the accident and the breach of the policy provisions, the insurer may still avoid liability. The New York Supreme Court declared that even if the pilot flying the airplane had the qualifications stated in the policy this does not constitute compliance with the clear requirements of the policy.\(^2\)

The policy provided for an approved list of first pilots. It also provided that any co-pilot was approved if he had the proper airmen's certificate and ratings. It was undisputed that the first pilot on the fatal trip was not a named pilot under the insurance policy even though he actually had all the requisite qualifications stated in the endorsement. The co-pilot held only a student pilots certificate and did not therefore possess the certificate or ratings required

\(^1\)loc. cit., p. 17,873 and 17,874. \\
under the terms of the insurance policy. The court held that the insurer need not show a causal connection between the accident and the non-compliance with the insurance policy in order to avoid liability. If there was in fact non-compliance, the actual competence of the first pilot was regarded as immaterial.

In another case, the importance of the person insured was considered by the court. In this action, the Electron Corporation had insured a Piper Apache. The qualifications of the pilots were set out in the policy with minimum requirements for the number of hours of flight time. In addition to this requirement, certain named individuals could fly the airplane as student pilots. When a crash occurred involving instruction with a qualified flight instructor and a student pilot not named under the policy, the court held there was a violation of the policy provision which was clear and unambiguous. The exclusionary clause relating to pilot qualifications marked the boundary of the coverage under the policy. Therefore, the insurance company was not liable within the terms of the policy. Since the aircraft was being used contrary to the policy provisions at the time of the loss,

the insurance was not in force during the time the student (employee of Electron) not named in the policy was receiving instruction.

In American Mercury Insurance Company v. Bifulco, the aircraft liability insurance policy applied to the airplane in question when it was being operated by Louis LaBrizzo, a student pilot, "except while carrying passengers under a student permit. LaBrizzo, William A. Bradley and George Bradley lost their lives when the plane LaBrizzo was flying was destroyed during the course of flight on October 31, 1959. The plane crashed into a mountain near Greenville, New York. It was being flown by LaBrizzo who held only a student pilot certificate. The Civil Air Regulations in force at the time prohibited student pilots from carrying passengers. Violations of the regulations were not policy exclusions. The court nevertheless relied upon the Civil Air Regulations to show that LaBrizzo knew that the holder of a student pilot certificate was prohibited from carrying passengers. The New Jersey Superior Court concluded there was no coverage for the accident under the express pilot conditions of the policy because LaBrizzo was carrying the Bradleys as passengers contrary to the clear terms

17 Avi. 18,199, p. 18,200.
of the insurance contract.

Liability Policy Exclusions

The exclusion clauses that are written into a liability insurance contract simply set forth the terms under which the policy has no application, and therefore, affords no protection to the insured. These clauses are, without a doubt, the more important aspects of insurance negotiation between the insurance executive of a company and the insurer.

The Airway Underwriters aircraft liability policy provides for the following exclusions:

"1. To bodily injury, sickness, disease or death of any employee of the insured while engaged in the duties of his employment or to any obligation for which the insured or any company as his insurer may be held liable under any workmen's compensation law.

2. To liability assumed by the insured under any contract or agreement.

3. While, with the knowledge and consent of the insured

    (a) the aircraft is used for any unlawful purpose; or
    (b) the aircraft is being operated in any manner with respect to which a waiver or other special permit issued by the Federal Aviation Agency is required, whether granted or not, unless this policy is specifically endorsed to include such operations."
4. As respects property damages under coverages B and D, to injury to or destruction of property owned, rented, occupied or used by or in the care, custody or control of or carried in or on any aircraft of the insured...

6. To any aircraft insured as a land plane hereunder which is converted to another type of aircraft unless previously approved by the exchange nor to any aircraft if its airworthiness certificate has been changed by the Federal Aviation Agency during the policy period to a classification other than 'standard' or equivalent.¹

Other liability exclusions which are often stated in the policy are:

"...to any insured who operates or who permits the operation of aircraft:

(1) in violation of its Civil Aeronautics Administration Airworthiness Certificate or operational records or in violation of the terms of any Civil Aeronautics Administration Pilots Certificate;

(2) in violation of any regulations of the Civil Aeronautics Administration applicable to acrobatic flying, instrument flying, repairs, alterations and inspections, night flying, minimum safe altitudes and student instructions;

(3) for any unlawful purpose or for the purpose of closed course racing, crop dusting, spraying, seeding or any form of hunting."²

¹Magee, Property Insurance, op. cit., p. 583.

²Magee, Property Insurance, op. cit., p. 583.
Other exclusions of coverage may be written into the insurance contract by operation of law. For instance, the insurance laws of New York exclude from coverage any liability for death or injuries to the spouse of the insured unless a special provision is included in a policy.\(^1\) In the Peka Case, the New York Supreme Court for the Borough of Queens proclaimed that the only way the spouse of an insured may be covered under a liability policy is for a special provision to be included in the policy. The court went on to hold that the exclusion set forth in the New York statutes was applicable to an aircraft liability policy which provided for indemnification of an individual and a corporation for injuries to passengers in an airplane owned by the corporation. There was no obligation imposed upon the insured to defend the action on behalf of the individual insured when suit was brought by the spouse of the insured.

In Bruce v. Lumberman's Mutual Casualty Company,\(^2\) suit was brought against the defendant insurance company under a clause in an insurance policy for bodily injury liability of $10,000 for each passenger in the

\(^1\)Peka, Inc. v. Kaye, 4 Avi. 17,953, 1955.

\(^2\)4 Avi. 17,509, 1954.
aircraft insured. The insurance company defended on the ground that the exclusion of liability with respect to bodily injury caused by the operation of the aircraft during flight in violation of any governmental regulations for civil aviation suspended coverage of the policy. At the time of the accident the regulations of the Civil Aeronautics Board provided that aircraft flown intentionally in aerobatic flight carrying passengers shall equip all occupants with approved parachutes. At the time of the flight, neither of the occupants of the Aeronca Plane were equipped with parachutes. The pilot intentionally flew the aircraft in a series of spins which were held by the court to be within the definition of aerobatic flight under the Civil Aeronautics Board Regulations. The plane spun into the ground killing both of the occupants.

The United States District Court for the Eastern District of North Carolina ruled that the defendant-insurer was not liable to the plaintiff under the terms of the insurance policy because the death of the plaintiff's intestate was caused by the operation of the aircraft with the knowledge of the insured during flight in violation of a government regulation for civil aviation.

It was conceded by the court that the failure to equip the occupants of the plane with parachutes, although
in violation of the regulations, was not the cause of
the death of plaintiff's intestate. Due to the low
altitude of the plane and the nature of the maneuver,
a parachute could not have been used to save the life
of either the pilot or his passenger. But the fact
that there was no causal connection between the viola-
tion of the Civil Aeronautics Board Regulations on
parachutes and the death of the plaintiff's intestate
did not avoid the exclusion of the policy. The ex-
clusion was effective regardless.

Another type of exclusion which is found in lia-
bility insurance policies insuring against damages for
personal injury and property damage caused by negli-
gence of the insured while engaged in commercial fly-
ing is as follows:

"The insurance afforded by this
policy shall not apply with re-
spect to any injury or damage to
persons or property when such in-
jury or damages is caused direct-
ly or indirectly by chemicals or
dusting powders."\(^1\)

The McNichols case held that the Federal Insurance
Company was not liable for the death of tropical fish
caused by the spraying of DDT by the insured. The damage,
in other words, was embraced within the exclusion clause
cited above.

\(^1\)Federal Insurance Company v. McNichols, 4 Avi.
17,541, 1955, p. 17,542.
In Glode Indemnity Company v. Harlen Hansen, the insurance company relied upon the policy exclusions of violations of any governmental regulation applying to aerobatics and minimum safe altitudes to avoid the liability insurance contract.1 Under the governmental regulations in force at the time, no person could engage in acrobatic flight below an altitude of 1,500 feet above the surface. The minimum safe altitude provision of the governmental regulations provided that the airplane must be flown at an altitude which would permit the pilot to make an emergency landing without undue hazard to persons or property on the surface.

The plane involved was a Cessna 170 single engine. The pilot and three of his friends rented this plane to go for a pleasure ride. The pilot dove the airplane at a 45 degree angle very close to the ground, pulled up and then dove again. On the second dive the plane hit the trees. The court held that the pilot was engaged in aerobatics below the lawful prescribed minimum altitude of both the governmental regulations and the Minnesota law.

The Ninth Circuit United States Court of Appeals had before it the question of the exclusion for any

flying in which a waiver issued by the Civil Aeronautics Authority is required in Underwriters v. Cordova Airlines, Inc. The dynamite that was being carried by the aircraft did not explode either before or after the accident. The actual cause of the accident was unknown. No waiver was obtained to carry the dynamite on this flight. Under the Civil Air Regulations in force at the time, a waiver was necessary to carry explosives or dangerous articles.

The court held that a waiver was required within the meaning of the exclusion clause of the policy. Since it was undisputed that no waiver was in fact obtained, the airlines thereby breached its insurance contract. The coverage of the policy was held to be suspended during the flight because the airlines did not obtain the required waiver. The fact that the dynamite did not contribute to the accident did not effect this holding. The court held as a matter of law, the coverage under the insurance policy was suspended.

The insurance executives of a corporation investigating aircraft insurance must keep in mind that the company is able to obtain three separate coverages for the times when the aircraft is flying, when the aircraft

16 Avi. 18,252, 1960.
is on the ground being taxied and when the airplane is being stored, either by being tied down or in a hangar. This is a major difference between aircraft insurance and automobile insurance. Obviously, the risks to the insurance company vary a great deal, between all risks ground and flight coverage and storage insurance.

In Jackson v. Royal Indemnity Company,¹ the United States District Court for Massachusetts had before it a policy which covered all risks but excluded risks while the aircraft was in flight. In this case the pilot landed at the Chatham, Massachusetts Airport, continued on the entire length of the landing strip and flipped his Piper Tri-Pacer over on June 8, 1957. The airplane was insured for taxiing on the ground, only. Jackson argued that this coverage applied, but the court concluded:

"By definition flight includes that part of the ground operation which is embraced within the normal meaning of take-off and landing, but does not include maneuvering prior thereto, or subsequent thereto... It is undisputed that the plaintiff landed with a defective brake, found himself out of control, shut off his motor, and was carried forward in a direction and to an extent he did not choose solely by virtue of the forces to which he was subject on landing. This was a flight or landing loss."²

²loc. cit., p. 17,351.
In Hedges Enterprises, Inc. v. Firemen's Fund Insurance Company,\(^1\) the New York Supreme Court for Monroe County noted the insurance policy excluded the insurer from liability if the aircraft was operated for an unlawful purpose. The failure to properly register the aircraft with the appropriate government agency prior to its operation fell within the exclusion clause of the policy. The operation of the aircraft thus became an unlawful operation and no recovery was allowed. The court went on to hold:

"Insurer claims that at the time of the accident the airplane was being used for an unlawful purpose in that Victor Nowrocki, the holder of only a student pilot certificate, was then piloting the airplane while carrying his brother, Stanley Nowrocki, as a passenger. If in fact Stanley Nowrocki was a passenger in the aircraft at the time it crashed, recovery would be denied the plaintiff for the reason, as under the pertinent statutes of the State of New York and of the United States and the rules and regulations of the Federal Aviation Agency as set forth in the code of Federal Regulations: 'No student pilot shall pilot an aircraft carrying a passenger.'"\(^2\)

When a policy issued by the Indemnity Insurance Company of North America named certain airplanes which

\(^1\)7 Avi. 18,318.

\(^2\)loc. cit., p. 18,319.
were covered for liability, the Seventh Circuit Court of Appeals held other aircraft were not protected under the terms of the policy as follows:

"There is no ambiguity in the manner in which this coverage is stated. From the language of the contract the parties did not intend to provide coverage for the Globe Swift Aircraft and the court cannot make a new contract... The 'coverage', liability for passenger bodily injury, is limited on endorsement number 2 to those aircraft listed."¹

In a Canadian case, the certificate of airworthiness was valid for aerial survey only.² The policy in question provided that the insurance would not apply in flight while the terms of the Civil Aeronautics Administration Certificate were violated. The pilot took the Lockheed P-38 aircraft up to test it with a 15 year old boy. The British Columbia Court of Appeals ruled that the killing of the 15 year old passenger violated the Certificate of Airworthiness which was for aerial survey only and that such Certificate of Airworthiness was included in the insurance contract by reference.

These examples clearly show to the insurance executive that there are many pitfalls surrounding the


aviation exclusion clauses. He must properly analyze the use and operation of the airplanes owned by the corporation and determine what pilots or flight instruction might be given in this ships. Many of the exclusion clauses will be dropped by aviation insurance companies, depending upon the nature of the risk connected with the airplanes and pilots to be used by the company. That is, a new model airplane being flown by a professional pilot would no doubt be sufficient for the insurance executive to induce the aviation insurance company to strike most of the exclusion clauses.

Limits of Liability

Each insurance executive has the problem of recommending the limits of liability for the aviation insurance policy for bodily injury and property damage. To make such a recommendation, he must analyze the type of operation that is being conducted by the airplanes owned by the company.

If the company airplanes are being flown from a small non-controlled airport to other non-controlled airports on a more or less regular basis, perhaps the limits of liability need not be so high. But if the airplanes are being operated from controlled airports to other controlled airports where there is always a present danger of doing property damage to equipment
on the airport which could run into millions of dollars and where there is a higher degree of probability of personal injury, the limits of liability should be increased.

The insurance executive must also consider the type of equipment which is being flown. Obviously, a small single engine airplane is much less likely to do a great deal of damage as compared to a heavy twin engine airplane operated by the company. Not only are the larger airplanes generally faster thus increasing the probability of damage, but they are also heavier and longer so that there is a greater likelihood of heavier airplanes causing property damages or bodily injury.

Above all, the insurance executive must consider the financial position of the corporation. If a jury finds negligence, it is much more likely to render the larger verdict against General Motors Corporation than it is against a small unknown corporation. Increased limits of liability are not a great deal more expensive. But the premium difference is sufficient to cause concern on this problem of setting the limits of liability somewhat on the net worth of the company.

These are judgment matters where the corporation attorney can be of assistance to the insurance executive. One publishing company has available for lawyers or anyone else a loose leaf service relative to "jury
verdict expectancies."\(^1\) This service is very adaptable to the needs of the insurance executive in determining the necessary limits of liability insurance.

Non-Owned Aircraft Liability

The non-ownership liability coverage problem for aviation insurance policies is another essential difference between the operation of aircraft and automobiles. Almost all automobile policies are written so that the owner of an automobile who drives, with permission, the car of another is covered under his own liability insurance policy. Aircraft liability policies are generally written to provide protection for the insured-corporation in connection with its business for which the aircraft is used. These policies usually do not give liability protection for aircraft which the corporation does not own.

Some policies provide liability coverage for the use of other aircraft, temporary use of substitute aircraft while the insured aircraft is being repaired and automatic insurance for newly acquired aircraft, giving the insured 30 days to notify the aviation insurance company and change the policy.\(^2\)

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\(^1\)Statewide Jury Verdicts Publishing Company, 333 Williamson Building, Cleveland 14, Ohio.

\(^2\)Airway Underwriter Insurance Policy, op. cit., p. 2.
Most policies, however, do not provide for this broad coverage. It is pointed out particularly that flight crews employed by a corporation to operate its aircraft may move planes of another owner or corporation under circumstances that will precipitate a claim against the employer of the flight crews. Whether or not there is actual liability, the cost of defense may be substantial because of attorney fees, court costs, and other expenses. Therefore, the defense feature of the policy is a prime motivating reason for the purchase of non-ownership liability.

Any company may have employees who own their own airplanes. There is always a possibility of a situation developing where actual liability may arise because of these employees operating their own airplanes in furtherance of company business.

Even if the corporation does not own aircraft for which there is liability insurance coverage for the use of other airplanes, the corporation is able to obtain liability insurance at a comparably low cost for airplanes owned by others, such as employees and fixed base operators. The premium for such insurance is low because the chance of claim is more remote. However, without this protection for the corporation, a serious exposure to loss may remain uninsured.
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