



AIRCRAFT ACCIDENT PROCEDURES MANUAL

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THE NEW JERSEY AIRCRAFT ACCIDENT PROCEDURES MANUAL

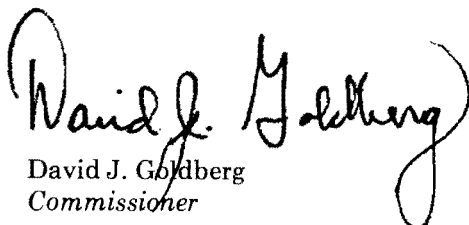
This manual has been published to standardize and facilitate the procedures used in the investigation of aircraft accidents occurring in the State of New Jersey.

Personnel and time considerations require that the Division of Aeronautics rely upon the additional resources provided by State and local law enforcement officials to conduct comprehensive aircraft accident investigations. The initiation of prompt action upon a report of an aircraft accident is an essential phase of the total effort required to improve flight safety. Such timely actions are invaluable in developing the data, analyses, findings and determinations relative to the cause factors of aircraft accidents.

The procedures, forms and diagrams presented in this manual are designed to aid in the investigation, and subsequently to provide the tools necessary for the maintenance and improvement of an effective flight safety program.

The prompt recording of aircraft accident data and the obtaining of witness statements are prime factors in the effectiveness of an aircraft accident investigation as it relates to the prevention of similar type accidents.

Your wholehearted cooperation in this endeavor is greatly appreciated as it is vitally necessary to its success. Personnel of the Division of Aeronautics, Department of Transportation are available to assist you in answering any questions that may develop or to conduct group training programs at your request.

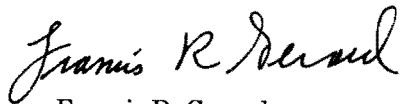

David J. Goldberg
Commissioner

INTRODUCTION

The Division of Aeronautics has a statutory responsibility to investigate aircraft accidents, violations of flight rules and regulations and to conduct periodic inspection of airports and avigational facilities. Certain of these investigations are accomplished independently or cooperatively with State or local police as the situation dictates. When a fatality results from an aircraft accident, the National Transportation Safety Board will normally assume primary responsibility for the investigation, with the State participating and assisting the Federal Bureau of Aviation Safety. Most accident investigations will be conducted in cooperation with personnel of the Federal Aviation Administration. However, in all cases the personnel of the Division of Aeronautics will represent the interest of the State of New Jersey.

Use of the airspace over the State of New Jersey increases greatly each year, therefore the proper performance of all flying activities has imposed a greater responsibility at state, federal, county and municipal levels.

Complaints of low flying, nuisance and aircraft noise will accelerate as activity increases and must be handled judicially in a manner to provide for the welfare of the general public and the economic benefits of aviation in consonance with the mandate to enforce the provisions of the aeronautics code. This standard procedures manual has been developed in coordination with the Federal Aviation Administration and the Bureau of Aviation of the National Transportation Safety Board to assist the various echelons of government that may be involved in the investigation of alleged aeronautical violations, complaints or aircraft accidents.



Francis R. Gerard
Director

REPORTING OF AIRCRAFT ACCIDENTS

Notify New Jersey Division of Aeronautics (duty hours) 609/292-3112 (after duty hours) may be reached through New Jersey State Police 609/882-2000.

The accident notification should contain the following:

1. Location
2. Date
3. Time
4. Aircraft make, model and N- number
5. Number of occupants
6. Injuries
7. Brief description of occurrence

The New Jersey Aircraft Accident Form (see Page 13) is to be completed for any occurrence involving the operation of an aircraft on the ground or in the air to include the following: fatal or serious injury, substantial damage to an aircraft, fire on the ground, taxiing collision, damage to persons or property, and emergency landings of any kind regardless of amount, or absence of damage to aircraft or property.

Definitions of above:

1. Fatal injury — results in death within 7 days.
2. Serious injury — one that requires hospitalization for more than 48 hours. Bone fractures of major structure — 3rd degree burns of 5% of body surface.
3. Substantial damage can be to either the engine or aircraft.
 - a. In aircraft of 12,500 lbs. maximum gross take-off weight or under, any estimate over \$500.00 is considered substantial damage.
 - b. Substantial damage to aircraft over 12,500 lbs. maximum take-off weights, means damage affecting structural strength, performance, or flight characteristics of aircraft.

Notification of Next of Kin:

Extreme care must be taken to insure that absolutely no release is made of names of pilots or passengers who are seriously or fatally injured until after positive notification of next of kin has been accomplished.

Responsibility for notifying next of kin lies with the initial investigating agency.

Preservation of Aircraft Wreckage, Mail, Cargo and Records

The operator of an aircraft, or if incapable, the first law enforcement agent on the scene is responsible for preserving, to the greatest extent possible, any aircraft wreckage, cargo and mail aboard the aircraft, and all records pertaining to the operation and maintenance of the aircraft and to persons involved in an accident.

Wreckage should be disturbed only to the extent necessary:

1. To remove person injured or trapped,
2. To protect the wreckage from further damage, and
3. To protect the public from injury.

Where it is necessary to disturb or move aircraft wreckage, mail or cargo, sketches, descriptive notes, and photographs should be made, if possible, of the accident scene including original position and condition of wreckage.

The aircraft wreckage will be released for the period of the investigation, to the first official that appears on the scene from the N. J. Division of Aeronautics, Federal Aviation Administration or the National Transportation Safety Board, Bureau of Aviation Safety. In the event officials from both State and Federal Aeronautics are present, the Federal representative will take precedence.

NOTE: In the event of a forced landing on other than a licensed air facility; i.e., highway, farm or field, a subsequent take-off is *not* permitted without the express authorization of the *N. J. Division of Aeronautics* and will be granted only after a representative of the Division has adjudged the site to be safe for the type of aircraft and pilot experience involved. This permission *cannot* be granted by federal or local officials. This regulation is non-waivable regardless of the fact that no aircraft damage was incurred or that the malfunction or mishap that caused the forced landing has been corrected.

FEDERAL AVIATION REGULATIONS

(Quoted in Part)

91.1 APPLICABILITY

- (a) This part prescribes rules governing the operation of aircraft (other than moored balloons, kites, and unmanned rockets, and unmanned free balloons) within (except as provided in paragraphs (b) and (c) of this section) the United States.
- (b) Each person operating an aircraft of U. S. registry in air commerce over the high seas shall comply with Annex 2 (Rules of the Air) to the convention of International Civil Aviation.
- (c) Sections 91.8, 91.19, 91.45, and 91.47 also govern the operation of aircraft of U. S. registry outside of the United States so far as these sections are not inconsistent with applicable regulations of any foreign country or Annex 2 to the convention on International Civil Aviation.

91.9 CARELESS OR RECKLESS OPERATION

No person may operate an aircraft in a careless or reckless manner so as to endanger the life and property of another.

NOTE: Examples of aircraft operations which may endanger the lives or property of others are:

- (a) Any person who "buzzes," dives on, or flies in close proximity to a farm, home, any structure, vehicle, vessel, or group of persons on the ground. In rural districts the flight of aircraft at low altitude often causes injury to livestock. A pilot who engages in careless or reckless flying and who does not own the aircraft which he is flying unduly endangers the aircraft, or the property of another.
- (b) The operation of aircraft at an insufficient altitude endangers persons or property on the surface or passengers within the aircraft. Such a flight may also constitute a violation.

91.79 MINIMUM SAFE ALTITUDES; GENERAL

Except when necessary for take-off or landing, no person may

operate an aircraft below the following altitudes:

- (a) *Anywhere* An altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface.
- (b) *Over congested areas* 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.
- (c) *Over other than congested areas* 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.
- (d) *Helicopters* Helicopters may be operated at less than the minimums prescribed in paragraph (b) or (c) of this section if the operation is conducted without hazard to persons or property on the surface. In addition, each person operating a helicopter shall comply with routes or altitudes specifically prescribed for helicopters by the Administrator [of the Federal Aviation Administration].

STATE OF NEW JERSEY REGULATIONS OF AERIAL NAVIGATION

The following excerpts from the New Jersey Statutes are quoted in part:

6:1 – 20 Purpose

The purpose of this act is to provide in the interest of public safety and of aeronautic progress for the regulation of aeronautics in and over this State; to require that aircraft, airports, airport managements, landing fields, landing strips, and other avigational facilities, airmen, ground personnel and all persons conform to standards of safety and sound practice as prescribed by the laws of this State and any rules or regulations thereunder, and for uniformity in certain regards with the laws, rules and regulations of the United States Government.

6:1 – 33 Police and departmental cooperation

It shall be the duty of all departmental and political subdivisions of this State, all peace officers, and every county and municipal officer charged with the enforcement of State and municipal laws to enforce and assist in the enforcement of the provisions of this act and the rules, regulations and orders issued and promulgated pursuant thereto and all laws of the State of New Jersey with reference to aeronautics. Airport regulations adopted by any local subdivisions operating an airport shall be inoperative in so far as such regulations are inconsistent with the provisions of this act or with the rules, regulations and orders issued and promulgated pursuant thereto.

6:1 – 43 Licenses: airports, airport managements, fixed base operators, avigation facilities, et cetera; requirements for

It shall be unlawful, except as hereinafter provided, to use, operate or cause to be used or operated any airport, landing field, landing strip, fixed base operator or other avigation facility, unless it, and, in the case of airports, its management, shall be licensed as provided in this Chapter; and except in case of emergency no aircraft shall land upon, or take off from, any airport, landing field or landing strip, not so licensed; provided, however, that neither the provisions of this Chapter, nor the rules, regulations or orders issued pursuant thereto, shall apply to any airport, landing field, landing strip, fixed base operator, or other

avigation facility, owned and operated by the Government of the United States.

6:1 – 49 Malicious interference with avigation facilities

No person shall willfully and maliciously interfere or tamper with any aircraft, airport, landing field, landing strip, or any other avigation facility, or the equipment thereof.

6:2 – 6. Flight over lands permitted; liability for forced landing

Flight in aircraft over the lands and waters of this state is lawful, unless at such a low altitude as to interfere with the then existing use to which the land or water, or the space over the land or water, is put by the owner, or unless so conducted as to be imminently dangerous to persons or property lawfully on the land or the water beneath. The landing of an aircraft on the lands or waters of another, without his consent, is unlawful, except in the case of a forced landing. For the damages caused by a forced landing, however, the owner or lessee of the aircraft or the airman shall be liable as provided in section 6:2 – 7 of this title.

6:2 – 11. Acrobatic stunts; low flying over public gatherings prohibited; penalty

Any airman or passenger who, while in flight over a thickly inhabited area or over a public gathering within this State, shall engage in trick or acrobatic flying, or in any acrobatic feat, or shall, except while in landing or taking off, fly at such a low level as to endanger the persons on the surface beneath, or drop any object except loose sand or water ballast, shall be guilty of a misdemeanor and shall be punished by a fine of not more than one thousand dollars or imprisonment for not more than one year, or both.

GENERAL ENFORCEMENT PROCEDURE COMPLAINT OF AN ALLEGED VIOLATION

1. Identification of the pilot and aircraft will undoubtedly be one of the difficulties experienced by local enforcement officers in the successful prosecution of alleged violations. Unlike automobile violations, an aircraft cannot be stopped and the alleged violator's identity determined. Difficulties will be experienced in some cases in locating the airport on which the aircraft is based, particularly in those areas where there are numerous flying fields. Even where the location of the airport is ascertained, it may not be possible to identify the aircraft or pilot immediately.

2. The local law enforcement agencies will find that alleged violations of safety regulations fall in two categories: (a) those which are observed by law enforcement officers, and (b) those which are brought to the officer's attention by complaints. In each case the essential element is identification of the individual responsible for the alleged violation. In most cases at the time the violation is observed the only information available is the make of the aircraft, its color, and its registration number such as (N-4004) which appears on the fuselage or wing and tail. This will require an investigation at the local airports. If the aircraft is locally based, it will undoubtedly be relatively easy to identify the owner and to obtain from him the name of the pilot. Even if the number of the aircraft is not known, identification of the violator may yet be secured through a description of the aircraft. In checking such information against known aircraft of the same kind and color based at local airports, the probable aircraft involved and its operator can be obtained. If the aircraft involved is not based at one of the local airports, it is probable that the aircraft was not locally owned. In such cases, it will be necessary for the local enforcement agency to use the facilities of the New Jersey Division of Aeronautics by telephoning 609/292-3112.

The principles to be followed in bringing an enforcement action against the violator will, of course, be governed by the applicable laws of the particular jurisdiction. However, the procedure to follow:

1. Obtain a written statement from each of the known witnesses setting forth in detail information regarding the identification of the aircraft.
2. Description of the exact maneuvers which occurred in the flight.
3. The height of the aircraft.
4. Time of day → especially as related to Sunup and Sundown.
5. Report the case to the New Jersey Division of Aeronautics.

GLOSSARY OF AVIATION TERMS

This glossary of aviation terms is to familiarize you with the terms applied to various components of the airplane which might be referred to in reporting an accident (See Page 10 for illustration of components listed with *).

AILERON*

A hinged or movable portion of an airplane wing, usually a part of the trailing edge.

AIRFOIL

Any surface, such as an airplane wing, or helicopter rotor blade.

BULKHEAD

An upright partition which separates one compartment from another.

CABIN

Enclosed area for passengers.

COCKPIT

An open or covered space in the fuselage for pilots.

CONTROL COLUMN

A lever having a rotatable wheel mounted at its upper end for operating the control surfaces of an airplane.

CONTROLS

A general term applied to the means provided to enable the pilot to control the speed, direction of flight, attitude, power, etc., of an aircraft.

COWL FLAPS

Adjustable cowling section of flaps hinged on the leading end, so that the trailing end may be opened or closed. Part of the engine cowling may consist of cowl flaps arranged for adjustment by the pilot.

COWLING

Removable covering around engine sections.

ELEVATOR*

A movable surface hinged to the horizontal stabilizer.

EMPENNAGE

Tail assembly including stabilizers, elevators, rudders, etc.

ENGINE NUMBERS

Engines of a multi-engine airplane are numbered from left to right — 1,2,3,4 — relative to left and right of the pilot seated in the cockpit.

The left and right sides of an airplane are determined from a position facing forward within the airplane.

FLAPS*

A hinged portion of an airplane wing, usually attached to the trailing edge of the wing which improves the aerodynamic performance of the airplane during landings and take-offs.

FUSELAGE*

The body, of approximately streamline form, to which the wings and tail unit of an airplane are attached.

LANDING GEAR*

Also called undercarriage and includes the main wheels and tail or nose wheel assemblies.

Retractable landing gear: A type of landing gear which may be withdrawn into the body or wings of an airplane while it is in flight.

LEADING EDGE*

The foremost edge of a wing or similar element, as distinguished from the “trailing edge” or rear edge.

LONGERON

The principal longitudinal structural members of the fuselage.

NACELLE

The enclosed streamlined housing for a power plant.

RUDDER*

The upright movable part of the tail assembly.

SKIN

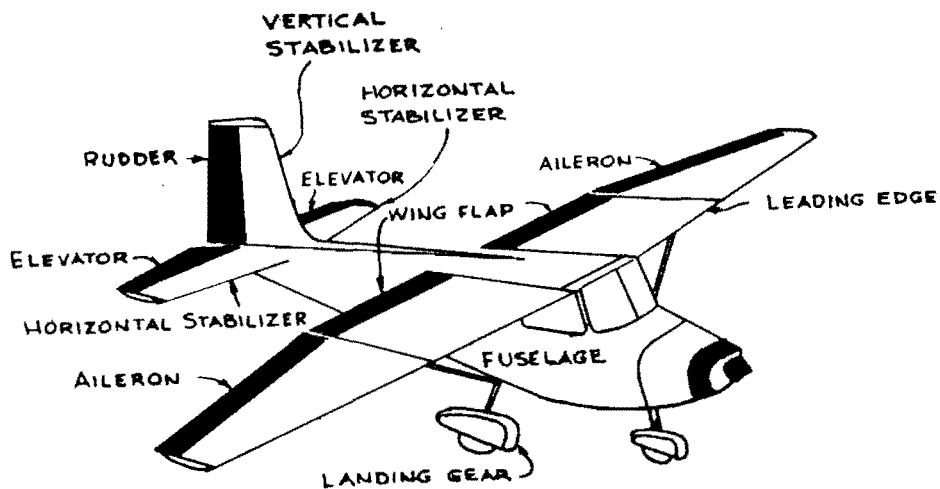
The outer cover of an airplane including the fuselage and wings.

SPAR

The principal longitudinal structural member or beam of a wing.

STABILIZERS*

The fixed sections of the tail assembly which stabilize the aircraft in flight. The term refers to the fixed horizontal tail surfaces and the fixed vertical surfaces.



AIRCRAFT COMPONENTS

NEW JERSEY DEPARTMENT OF TRANSPORTATION

Division of Aeronautics

STATEMENT OF WITNESS

Place

Date

1. Place of Accident Date Hour

2. Make of Aircraft FAA Certificate No. and Symbol

3. What is your name

Address Age

4. Occupation Employed by

5. Where were you at the time of the accident?

6. Tell in your own words what you saw before and at the time the accident occurred.

Signature

(Use reverse side of sheet for diagram and additional statement)

NEW JERSEY DEPARTMENT OF TRANSPORTATION Division of Aeronautics				This form is to be used in reporting civil aircraft accidents.									
AIRCRAFT ACCIDENT REPORT													
1. LOCATION OF ACCIDENT, DATE AND TIME													
City or place and State			Local time A M P M		Date								
If accident occurred on approach to, or takeoff from an airport, or on in airport, give name of Airport			Runway Direction Length		Type of surface and condition								
2. AIRCRAFT													
Aircraft make		Engine make		Name, Address of owner									
Model		Model											
Registration No.		Horsepower											
Serial No.		Serial No.(s)											
Describe aircraft damage			Est. cost of repairs \$		Last airworthiness inspection ☐ Periodic ☐ 100 Hour ☐ Progressive Date								
Will it be rebuilt or repaired? ☐ Yes ☐ No			Operational time since last inspection Total time on aircraft		Time								
Where is it located now?													
3. KIND OF FLYING AND PURPOSE (Check each applicable item)													
☐ Commercial operator		☐ Noncommercial operator		☐ Local									
☐ Cross-country		☐ Instructional, If so, Solo _____ Dual _____		☐ Pleasure/Personal transportation									
☐ Business transportation		☐ Air taxi/Contract		☐ Aerial application/Crop control									
☐ Other (Describe) _____													
4. PILOT DATA													
Name and address			Telephone No. Age		Business or profession								
Pilot certificate			Class/type ratings										
Certificate No.			☐ Airplane ☐ Rotocraft ☐ Single-engine ☐ Helicopter ☐ Multiengine ☐ Gyroplane ☐ Land ☐ Instrument ☐ Sea										
☐ Student ☐ Airline transport ☐ Private ☐ Flight instructor ☐ Commercial ☐ Lighter-than-air			Pilot time - hours flown Last 24 hours Last 90 days Total time Total time Instrument Night This make/model										
Medical certificate issued			Type rating(s) and limitations (Include medical)										
Date Class													
5. LIST OF OCCUPANTS													
Name and Address (Indicate injuries to pilot, other occupants and persons on the ground)				Total persons aboard									
				<table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td>Crew</td> <td>Passenger</td> <td>Nonoccupant</td> <td>Degree injury</td> </tr> <tr> <td>Fatal</td> <td>Serious</td> <td>Minor</td> <td></td> </tr> </table>		Crew	Passenger	Nonoccupant	Degree injury	Fatal	Serious	Minor	
Crew	Passenger	Nonoccupant	Degree injury										
Fatal	Serious	Minor											
6. FILL IN ONLY IF A COLLISION ACCIDENT (Complete on other aircraft)													
Make		Damage		Est. cost \$									
Model		Name and address of owner											
Registration No.													

ACTION CHECKLIST FOR AIRCRAFT ACCIDENT

I. Primary Actions (immediately **after** accomplishment of First Aid, Fire Fighting, etc.)

1. Notify New Jersey Division of Aeronautics (duty hours) 609/292-3112 (after duty hours) may be reached through New Jersey State Police 609/882-2000

a. Contents of Notification should include:

1. Location
2. Date/time
3. Aircraft identification number (if known)
4. Fatalities
5. Did fire occur
6. Injuries to third persons or damage to property off the airport

II. Secondary Actions

1. Insure security of accident scene

- a. Preserve aircraft wreckage, mail, cargo and records
- b. Obtain name of operator and crew
- c. Other persons aboard
- d. Wreckage will be released to the first official appearing on the scene from the New Jersey Division of Aeronautics, the Federal Aviation Administration, or the National Transportation Safety Board.

NOTE: In case of simultaneous arrival, the Federal agency will take precedence

III. Notification of Next of Kin

1. Next of kin must be notified prior to release of names to news media. Notification will be accomplished by the initial investigating agency.

IV. Accomplish New Jersey Aircraft Accident Report Form



DIVISION OF AERONAUTICS