

Minnesota Attorney General: Administrative Rules Proceedings

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MINNESOTA STATE REGULATIONS

Notice of filing by the Commissioner of Administration

We have received on this date, stamped and filed 2 copies of Rules and Regulations pertaining to the Aeronautics Dept (Agency or Board)

Regulation No. Aero 1-38

Subject: Procedure, Licensing, Zoning, operation Rental Leasing + Carried

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RULES AND REGULATIONS

of the

DEPARTMENT OF AERONAUTICS

of the

STATE OF MINNESOTA

PROMULGATED BY
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By Order Dated
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CHAPTER ONE: AERO 1-5

DEFINITIONS, PROCEDURAL REGULATIONS, CONTESTED CASES, TAXATION, APPLICATIONS FOR FINANCIAL AID

Aero 1 Definitions

(a) Aerobatic Flight. Maneuvers intentionally performed that exceed a bank of 60 degrees relative to the horizon or a nose-up-or-down attitude of 30 degrees relative to the horizon.

(b) Air Traffic. Aircraft operating in the air or on an airport surface, exclusive of loading ramps and parking areas.

(c) Air Traffic Control. A service operated by appropriate authority to promote the safe, orderly, and expeditious flow of air traffic.

(d) Air Traffic Clearance. Authorization by air traffic control for the purpose of preventing collision between known aircraft, for an aircraft to proceed under specified conditions within a control zone or control area.

(e) Anchor Light. A white light installed so as to be visible in all directions for at least three miles at night under clear atmospheric conditions.

(f) Balloon. An aircraft, excluding moored balloons, without mechanical means of propulsion, the support of which is derived from lighter-than-air gas, and is not engine driven.

(g) FAA. The capital letters "FAA" shall mean the Federal Aviation Administration of the United States.

(h) Ceiling. The height above the ground or water of the lowest layer of clouds or obscuring phenomena reported as "broken," "overcast," or "obscuration," and not classified as "thin" or "partial."

(i) Controlled Airspace. Airspace designated as continental control area, control area, control zone, or transition area, within which some or all aircraft may be subject to air traffic control designated by the Commissioner or by the FAA.

(j) Flight Instructor. A private or commercial pilot who possesses a valid flight instructor's rating as issued by the FAA.

(k) Flight Visibility. The average forward horizontal distance from the cockpit of an aircraft in flight at which prominent unlighted objects may be seen and identified by day and prominent lighted objects may be seen and identified by night.

(l) Glider. A heavier-than-air aircraft that is supported in flight by the dynamic reaction of the air against its lifting surfaces and whose free flight does not depend principally on an engine.

(m) Helicopter. A rotorcraft, that for its horizontal motion, depends principally on its engine-driven rotors.

(n) Rotorcraft. A heavier-than-air aircraft that depends principally for its support in flight on the lift generated by one or more rotors. These rotors are not engine driven but are made to rotate by action of the air when the rotorcraft is moving.

(o) Autorotation. A rotorcraft flight condition in which the lifting rotor is driven entirely by the action of the air when the rotorcraft is in motion.

(p) Letter of Authority. "Letter of Authority" shall be included in the term "license" as used herein.

(q) Passenger. An occupant of the aircraft in flight other than a crew member.

(r) Crew Member. A person assigned to perform duty in an aircraft during flight time and any operations on the ground.

(s) Pilot in Command. The pilot responsible for the operation and safety of an aircraft during flight time and any operations on the ground.

(t) Second in Command. A pilot who is designated to be second in command of an aircraft during flight time and any operations on the ground.

(u) Sunset and Sunrise. The mean solar times of sunset and sunrise as published in the Nautical Almanac, converted to local standard time for the locality concerned.

(v) Night. The time between the end of evening civil twilight and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time.

(w) To Pilot. To be in command of an aircraft during takeoff, in flight, landing, or on the ground.

(x) Traffic Pattern. The flow of aircraft operating on and in the vicinity of an airport during specified wind conditions as established by appropriate authority.

(y) VFR. The symbol used to designate visual flight rules.

(z) VFR Conditions. Weather conditions equal to or above the minimum prescribed for flights under VFR.

(aa) IFR. The symbol used to designate instrument flight rules.

(bb) IFR Conditions. Weather conditions below the minimum prescribed for flights under VFR.

(cc) Key, Intermediate and Landing Strip Airports. Key system airports are those being used by or intended to be used by large multi-engine and jet aircraft. Intermediate system airports shall be those used or intended for use by single-engine or light-to medium multi-engine aircraft. Landing strip airports are those small airports which may be unattended, sod or hard-surfaced and which are used or intended for use by single- or multi-engine light aircraft.

Aero 2 Procedural Regulations as to Structure Heights

(a) When a permit is required under Minn. Stat. 360.81-360.91, and amendments made subsequent hereto, application shall be made to the Commissioner on a form furnished by him.

(b) The Commissioner shall make such investigation as may be necessary.

(c) Any person interested in the granting or denial of a permit may intervene in the matter of the application. A person desiring intervention

shall notify the Commissioner of his interest. Such notification shall be in writing.

(d) Before issuing or denying a permit, the Commissioner may request an informal appearance of the applicant or any person who has intervened in the matter of the application.

(e) All hearings, notices, orders, and other procedural regulations regarding this subject shall be in accordance with Chapters 360 and 15 of the Minnesota Statutes, these regulations, and any other applicable law.

Aero 3 Hearings in Contested Cases

(a) This regulation does not include hearings in rule making and is supplementary to statutory provisions concerning the subject of contested cases.

(b) Hearings in contested cases shall be in conformance with Chapters 360 and 15 of the Minnesota Statutes and in conformance with the "Rules for Contested Cases" then in effect as promulgated by the office of the Attorney General of the State of Minnesota.

Aero 4 Taxation of Converted Military Aircraft

(a) When a military aircraft is purchased for civilian use and enters the State of Minnesota, it will be given a base value for taxation purposes according to its age, condition, weight, and performance characteristics. These valuations are established in the table of valuations kept in the Department of Aeronautics.

Aero 5 Applications for State and Federal Aid

(a) The Commissioner of Aeronautics will make a substantive decision as to merit or necessity of each project and project application. A substantial aeronautical requirement must be shown by the municipality whereby the contemplated or existing airport is a necessary part of a system of public airports adequate to meet the present and anticipated needs of civil aviation in Minnesota.

(b) The airport must be able to handle air traffic safely and adequately. The public interest and aeronautical progress of the state must be reflected in each project and project application.

(c) The municipality must show that sufficient funds are available for that portion of the project costs to be borne by the municipality and that the project will be completed without undue delay, and that the municipality submitting the project application has legal authority to engage in the development as proposed.

CHAPTER TWO: AERO 6-16

AIRPORT LICENSES, OBSTRUCTIONS TO AIR NAVIGATION, ZONING, UNLICENSED LANDING AREAS, RESTRICTED LANDING AREAS, AND OBSTRUCTION MARKING AND LIGHTING

Aero 6 Airport Licenses

(a) Every public airport and restricted landing area, before operating as such, shall be approved and licensed by the Commissioner. (Airports owned or operated by public corporations formed pursuant to the Metropolitan Airports Commission Act need not be licensed.)

(b) Application for license shall be made on forms supplied by the Commissioner and accompanied by the fee.

Public Airport	$5.00
Municipal Landing Strip	$5.00
Privately-owned Public Airport	$5.00
Privately-owned Commercial Airport	$5.00
Public Seaplane Base	$5.00
Public Heliport	$5.00
Privately-owned Commercial Heliport	$5.00
Privately-owned Commercial Seaplane Base	$5.00
Restricted Landing Area	No Fee

(c) The license issued under this section shall be renewed annually.

(d) The license issued under this section shall be posted in a prominent place at the airport.

(e) A letter of authority granting temporary or restricted operation may be issued pending full compliance with the provisions of these rules and regulations and shall have an expiration date.

(f) The applicant for any license shall offer full cooperation in respect to any inspection which may be made of the airport premises upon proper demand at reasonable hours by any authorized representative of the Commissioner, prior to or subsequent to the issuance of a license.

(g) Nontransferability. Licenses shall not be transferable.

Aero 7 General Provisions

(a) Ownership. The applicant shall show that he has right of access to and control of the land, or right of access to the water area to be licensed, as owner, co-owner, tenant, or by any other right of entry.

(b) Separation. No public airport or restricted landing area shall be licensed unless its separation from the nearest boundary of any public airport is such that aircraft maneuvering in the air for landing or taking off from each airport will not interfere with one another.

(c) Exceptions. In any case where it is determined that the public interest and safety will not be adversely affected, the Commissioner may waive any of the requirements stated in Aero 6-15, subject to such conditions or limitations as may be necessary.

Aero 8 Public Airport

(a) Definition. A public airport is any airport, whether privately or publicly owned, the public use of which for aeronautical purposes is invited, permitted, or tolerated by the owner or person having right of access and control. A public airport will be granted a license when it is shown that it has met the following minimum requirements:

(1) Size. Minimum usable lengths and widths of turf landing strips constructed before July 1, 1958, have been permitted, if they were 2,000 feet long and 150 feet wide. All such minimum turf landing strips prior to July 1, 1976, must be improved so that they have at least one landing strip with a minimum usable length of 2,500 feet and a width of 150 feet. No turf landing strip licenses will be renewed after July 1, 1976, unless they have reached the minimum usable length of 2,500 feet and a width of 150 feet by that date. New turf landing strips constructed after July 1, 1958, shall have minimum usable lengths and widths of 2,500 feet long and 150 feet wide.

(2) Surface. The effective landing surface shall be smooth and free from hazards or obstructions. The longitudinal gradient on any part of the landing area shall not exceed 2%. The transverse gradient shall not exceed 3%.

(3) Obstructions. The obstruction clearance requirements for licensing are set forth in Aero 9 of these regulations. The minimum obstruction clearance of the glide slope shall be 15 feet for highways at the near edge, 17 feet for interstate highways and 23 feet for railroads at the top of rail. The approach zone to a runway or landing strip shall be clear above a 20:1 glide slope commencing 200 feet beyond the end of a hard-surfaced runway (100 feet beyond a sod runway) and extending outward for 10,000 feet. The minimum width is 250 feet at the end near the runway widening to 2,250 feet.

(4) Markers. The landing strips or areas, unless clearly defined by distinct contrasting surroundings of permanent nature, shall be outlined with effective markers which shall be constructed and installed in a manner approved by the Commissioner.

(5) Buildings. Buildings and structures on a public airport shall not be closer than 250′ to the centerline of the runway. For height limitations see Aero 9.

(6) Danger Area or Closed Airport. Any part of the landing strip or runway which has become temporarily unsafe, or for any reason is not available for use, shall be marked by suitable warning flags and/or flares which shall clearly show the boundaries of the danger area. Upon the closing, abandonment or cessation of any airport, the licensee shall immediately notify the Commissioner, return the current license, and mark the landing area in a manner that clearly indicates that the airport is closed to air traffic. All markings indicating a usable runway must be obliterated. A cross must be placed at a central location, the minimum size to be 3′ x 30′, and of contrasting colors to the surrounding surface where the cross is placed. In the event that the licensee fails to do the above, then and in such case, and without excusing the licensee, the Commissioner may go upon the premises and remove the markings that indicate a usable runway and may also mark the airport as indicated above.

(7) Wind Indicator. All public airports shall be equipped with a wind cone, 3′ x 12′, blaze orange in color, which must be clearly visible from the pattern altitude when within one mile of the airport during daylight hours.

(8) Fencing. Such adequate fencing or barriers shall be constructed as will prevent all persons not engaged in flight activities from having access to a position of danger with relation to aircraft in the vicinity of the building area and on the flight line.

(9) Lighting. If the airport is lighted for night operations and is advertised as lighted for night operations, the lights shall be kept on from dusk to dawn. The wind indicator, in this case, must also be lighted as approved by the Commissioner. Any object in the approach zone of a lighted runway or landing strip that extends above a 40:1 glide slope, starting 200 feet from the end of a runway and extending 1000 feet outward, shall be marked and lighted in accordance with the standards for obstruction marking and lighting where requested by the Commissioner in the interest of safety.

(10) Tiedowns. Facilities must be furnished for at least three more aircraft than regularly use the facilities. The tiedowns are to be marked so as to be readily located and shall not protrude above the surface.

(11) Sanitary public toilets.

(12) All aviation fuel dispensed on any airport shall be filtered to be free of solid matter in excess of 5 microns particle size and to have a free water content less than 30 parts per million parts of fuel. At least one fire extinguisher shall be available in the vicinity of the fuel pump or on the flight line if fuel is dispensed. It must be a minimum of 10 pounds of carbon dioxide or equivalent.

(13) An area map shall be posted at the airport office in a prominent place, showing danger or restricted areas. Safety and traffic rules promulgated by the airport manager shall be posted adjacent to the map.

(14) A telephone shall be available for public use on a 24-hour basis.

(15) An office or other suitable facilities shall be available.

(b) Privately-owned Commercial Airport. A privately-owned commercial airport is an airport used for commercial purposes. The persons who may use the airport are determined by the owner of the airport. Licensing requirements are the same as in Aero 8(a) 1-10.

Aero 9 Criteria for Determining Obstructions to Air Navigation, Minimum Zoning Standards, and Marking and Lighting of Structures

(NOTE: See Minn. Stat. 360.061 et seq., for airport zoning statutes and Minn. Stat. 360.81 et seq., for regulations of structure heights.)

(a) Aero 9 sets forth the minimum airspace zoning standards, the criteria for determining obstructions to air navigation, and the marking and lighting of obstructions.

Objects which project above any airport imaginary surfaces described in Aero 9 (c) are obstructions to air navigation. Objects exceeding the limiting heights above ground described in (d) through (i) are obstructions to air navigation.

Any person or governmental body having airport zoning powers under Minn. Stat. 360.061 to .076 may adopt airport zoning ordinances, orders or regulations more restrictive than the minimum zoning standards set forth herein or in any other applicable law.

(b) Definitions

(1) Airport Elevation. The established elevation of the highest point on the usuable landing area.

(2) Airport Hazard. Any structure or tree or use of land which obstructs the airspace required for, or is otherwise hazardous to, the flight of aircraft in landing or taking off at the airport; and any use of land which is hazardous to persons or property because of its proximity to the airport.

(3) Dwelling. Any building or portion thereof designed or used as residence or sleeping place for one or more persons.

(4) Height. For the purpose of determining the height limits in all zones set forth in these regulations, the computation shall be based on mean sea level elevation.

(5) Land. In addition to its normal meaning, means water surfaces within the zone being protected.

(6) Landing Area. The area of the airport used for landing, taking off or taxiing of aircraft.

(7) Runway. Any paved surface or any grass or turf-covered area on the airport which is specifically designated and used for the landing or takeoff of aircraft.

(8) Precision Instrument Runway. A runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), or a Precision Approach Radar (PAR). Also, a runway for which a precision instrument aproach is planned and is so indicated on an approved planning document.

(9) Nonprecision Instrument Runway. A runway having an existing or planned straight-in instrument approach procedure utilizing air navigation facilities with only horizontal guidance, and for which no precision approach facilities are planned or indicated on an approved planning document.

(10) Visual Runway. A runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an approved planning document.

(11) Slope. An incline from the horizontal expressed in an arithmetic ratio of horizontal magnitude to vertical magnitude.

(c) Airport imaginary surfaces are described and defined below.

(1) Primary Surface. An imaginary surface logitudinally centered on a runway and extending:

(aa) 200 feet beyond each end of a runway with a specially-prepared hard surface or planned hard surface; or

(bb) 100 feet beyond each end of other runways.

The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of the primary surface is:

(cc) 1000 feet for precision instrument runways and for nonprecision instrument runways having visibility minimums as low as three-fourths of a statute mile.

(dd) 500 feet for all other nonprecision instrument runways and for all visual runways having a specially-prepared hard surface or planned hard surface.

(ee) 250 feet for all other visual runways.

(2) Horizontal Surface. An imaginary horizontal surface with its height 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of specified radii from the center of each end of the primary surface of each runway and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is:

(aa) 10,000 feet for precision instrument runways and for nonprecision instrument runways having visibility minimums as low as three-fourths of a statute mile.

(bb) 6,000 feet for all other runways.

When a 6,000-foot arc is encompassed by tangents connecting two adjacent 10,000-foot arcs, the 6,000-foot arc shall be disregarded in the construction of the perimeter of the horizontal surface.

(3) Conical Surface. An imaginary conical surface extending upward and outward from the periphery of the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet as measured radially outward from the periphery of the horizontal surface.

(4) Approach Surface. An imaginary surface logitudinally centered on the extended centerline at each end of a runway. The inner edge of the approach surface is at the same width and elevation as, and coincides with, the end of the primary surface. The approach surface inclines upward and outward at a slope of:

(aa) 40:1 for all nonprecision instrument runways and for all visual runways having specially-prepared hard surfaces or planned hard surfaces; or

(bb) 20:1 for other visual runways.

The approach surface expands uniformly to a width of:

(cc) 4,000 feet for nonprecision instrument runways having minimums as low as three-fourths of a statute mile; or

(dd) 3,500 feet for all other nonprecision instrument runways; or

(ee) 2,500 feet for all visual runways having specially-prepared hard surfaces or planned hard surfaces; or

(ff) 2,250 feet for other visual runways at a horizontal distance of 10,000 feet, then continues at the same rate of divergence to the periphery of the conical surface.

(5) Precision Instrument Approach Surface. An imaginary surface logitudinally centered on the extended centerline at each end of a precision instrument runway. The inner edge of the precision instrument approach surface is at the same width and elevation as, and coincides with, the end of the primary surface. The precision instrument approach surface inclines upward and outward for a horizontal distance of 10,000 feet at a slope of 50:1, expanding uniformly to a width of 4,000 feet, then continues upward and outward for an additional horizontal distance of 40,000 feet at a slope of 40:1, expanding uniformly to an ultimate width of 16,000 feet.

(6) Transitional Surface. An imaginary surface extending upward and outward at right angles to the runway centerline and the runway centerline exended at a slope of 7:1 from the sides of the primary surfaces and from the sides of the approach surfaces until they intersect the horizontal surface or the conical surface.

Transitional surfaces for those portions of the instrument approach surface which project through and beyond the limits of the conical surface extend a distance of 5,000 feet measured horizontally from the edge of the instrument approach surface and at right angles to the extended instrument runway centerline.

(d) Objects extending more than 500 feet above the highest point of land within a one-mile radius from said object will be considered obstructions.

(e) Objects in instrument approach areas, more than 100 feet above the ground or 100 feet above the elevation of the approach end of the runway, whichever gives the higher elevation, within three statute miles of the runway end, and increasing in height above ground in the proportion of 25 feet for each additional statute mile of distance outward from the runway end but not exceeding 250 feet within ten statute miles of the runway end will be considered obstructions.

(f) Objects more than 200 feet above the ground or more than 200 feet above the established airport elevation, whichever gives the higher elevation, within three statute miles of the nearest runway of an airport, and increasing in height in the proportion of 100 feet for each additional statute mile of distance from the airport but not exceeding a maximum of 500 feet above ground will be considered obstructions.

(g) Objects which would increase the minimum obstruction clearance altitude of a federal airway or approved off-airway route will be considered obstructions.

(h) Objects whose elevation will increase a precision or nonprecision instrument approach minimum flight altitude will be considered obstructions.

(i) Objects within a civil airway or air traffic control area, more than 200 feet above the ground or 1451 feet below the established minimum flight altitude, whichever gives the higher elevation, will be considered obstructions. The minimum flight altitudes are normally established from the highest point within five statute miles of the centerline of the civil airway or air traffic control area for the section of airway or control area affected.

(j) Heliports

(1) Objects which project above the heliport primary surface, heliport approach surface or heliport transitional surface are obstructions to air navigation.

(2) The primary surface of a heliport coincides in size and shape with the designated takeoff and landing area. This surface is a horizontal plane of the established heliport elevation.

(3) The heliport approach surface begins at each end of the primary surface, with the same width as the primary surface, and extends outward and upward at a slope of 8:1 for a horizontal distance of 4,000 feet where its width is 500 feet.

(4) The heliport transitional surfaces extend outward and upward from the lateral boundaries of the primary surface and from the approach surfaces at a slope of 2:1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces. As to a privately-owned commercial heliport, this subparagraph 4 need not be applied in all directions where there are obstruction-free approaches from two directions with at least a 2:1 clear angle in a third direction.

(k) The standards for marking and lighting structures are contained in FAA Advisory Circular 70/7460-1B, Obstruction Marking and Lighting, and any subsequent changes, except that spherical markers (Chapter 3, 8B (1)) shall be a diameter of not less than 30 inches, and except that the colors of the markers shall be aviation orange, white, and chrome yellow, and be installed in that sequence.

Aero 10 Land Use Zoning Standards

(a) Aero 10 sets forth the minimum land-use safety and noise sensitivity zoning standards and the criteria for determining land uses incompatible with airports.

(b) Definitions. The terms used herein shall be defined in the same manner as they are defined in Aero 9.

(c) The following land-use safety zones are established with relation to an airport and each runway.

(1) Safety Zone A. In the approach zones of a runway, Safety Zone A extends outward from the end of the primary surface a distance equal to two-thirds the runway length or planned runway length.

(2) Safety Zone B. In the approach zones of a runway, Safety Zone B extends outward from Safety Zone A a distance equal to one-third the runway length or planned runway length.

(3) Safety Zone C. All that land which is enclosed within the perimeter of the horizontal zone defined in Aero 9 and which is not included in Zone A or Zone B.

(d) Restrictions in Land Use Safety Zones

(1) General. No use shall be made of any land in any of the safety zones which creates or causes interference with the operation of radio or electronic facilities on the airport or with radio or electronic communications between the airport and aircraft, makes it difficult for pilots to distinguish between airport lights and other lights, results in glare in the eyes of pilots using the airport, impairs visibility in the vicinity of the airport, or otherwise endangers the landing, taking off, or maneuvering of aircraft.

(2) Zone A. Zone A shall contain no buildings or temporary structures and shall be restricted to those uses which will not create, attract, or bring together an assembly of persons thereon. Permitted uses may include agriculture, light outdoor recreation (nonspectator), cemeteries and auto parking.

(3) Zone B. Zone B shall be used for the following purposes only:

(aa) Agricultural and residential purposes, provided there shall not be more than one single-family dwelling per three-acre tract.

(bb) Commercial or industrial use which meets the following minimum standards:

(i) Commercial or industrial use shall not create, attract or bring together a site population that would exceed 15 times that of the site acreage.

(ii) Commercial or industrial site shall be no less than three acres.

(iii) Commercial or industrial site shall contain no dwellings and shall contain no more than one building per three-acre tract.

(iv) Maximum ground area to be covered by a single commercial or industrial building shall not exceed the following minimum ratios with respect to the building site area:

At Least (Acres)	But Less Than (Acres)	Ratio of Site Area to First Floor Building Area	First Floor Building Area (Square Feet)	Maximum Site Population (15 Persons)
3		12:1	10,900	45
	4	12:1		
4		10:1	17,400	60
	6	10:1		
6		8:1	32,600	90
	10	8:1		
10		6:1	72,500	150
	20	6:1		
20 or More		4:1	218,000	300

(cc) The following uses are specifically prohibited in Zone B: churches, hospitals, schools, theaters, stadiums, hotels and motels, trailer courts, campgrounds, and other places of public or semipublic assembly.

(4) Zone C. Zone C is subject only to the general restrictions contained in paragraph (d) (1).

(e) Land-use noise sensitivity zones shall be established when requested by the Commissioner or by the governmental unit having airport zoning powers. The governmental unit having zoning powers, when required by the Commissioner, shall secure a study as to the boundaries of the area to be zoned for this purpose and the uses permitted therein.

Aero 11 Reserved for Future Use

Aero 12 Public Seaplane Base

(a) Public Seaplane Base. A public seaplane base shall mean any seaplane base, whether privately- or publicly-owned, at which any kind of commercial aviation service is available to the public or the public use of which for aeronautical purposes is invited, permitted, or tolerated by the operator or the person having right of access. A public seaplane base will be granted a license when it is shown that it has met the requirements stated herein.

(b) Operation. In case the body of water to be used for landing and taking off is under the jurisdiction of any federal, state, municipal port or other authority, the operations on such body of water shall be in conformity with the marine traffic rules and regulations of such authority, if such rules and regulations do not interfere with the safe operation of aircraft.

(c) Separate Licenses. The license issued to a seaplane base shall apply to the land area from which operations are conducted and to the water area designated for its operations. Where two or more bases located on the same body of water are under different ownership or control, each base shall obtain a separate seaplane base license.

(d) Use. The use of such body of water for aeronautical purposes shall in no way impair or deny the right of the public to the use of public waters.

(e) Ownership. All property used for the land operation of the seaplane base, including docks and ramps, shall be owned by the applicant, or the applicant shall show a statement in writing by the owner that he has the right to use and has control of the property for the purpose and time intended. The applicant shall show that any construction or alteration of shoreline on the land area of the base is in conformity with the regulations of the Minnesota Department of Natural Resources, Division of Waters, Soils and Minerals, and with municipal building and other pertinent regulations, if applicable.

(f) Size. The body of water shall have a minimum effective length of at least one mile and shall be of sufficient width and depth to permit the safe operation of aircraft on the surface. All approaches to the landing area shall be sufficiently clear of obstructions to permit a 20:1 glide angle to the nearest point of the usable landing area, provided that if any structure on the land is located within 300 feet of the centerline of the approach path, such glide angle shall be computed so as to provide a clearance of at least 100 feet above such structure. All approaches to and takeoffs from the water area shall be made in such a manner as to clear all structures on the land by at least 100 feet, and wherever the area of the body of water will permit, such landings and takeoffs shall be made at a distance of not less than 300 feet, both laterally and vertically, from any boat or person on the surface of the water, or as near to 300 feet as the area of the water will permit.

(g) Boundary Markers. The outline of that part of the area available for landing and takeoff and for taxiing, when required in the interest of safety, shall be marked in a manner approved by the Commissioner, or as may be required by the marine traffic rules and regulations of the authority having jurisdiction.

(h) Hazards. All hazards in the approach or landing area, including underwater obstructions, shall be marked in a manner approved by the Commis-

sioner. If the base is engaged in night operations, such hazards shall be clearly marked with lights during the period of sunset to sunrise.

(i) Wind Indicator. Each public seaplane base shall be equipped with a wind cone 3′ x 12′, blaze orange in color, which must be clearly visible from the pattern altitude when within one mile of the seaplane base during daylight hours. If night operations are conducted at the base, the wind cone must be lighted.

(j) Minimum Public Seaplane Base Facilities. Every public seaplane base, in addition to the facilities required at a public airport, shall have the following facilities:

(1) A dock or float, suitable for the loading and unloading of seaplanes, shall be so located as to afford the maximum degree of safety in taxiing approach.

(2) A ramp, or equivalent substitute, for beaching of aircraft, shall be provided. Tie-down or storage area shall be so arranged that the ramp is normally clear for the beaching of incoming aircraft.

(k) Minimum Public Seaplane Base Safety Equipment. Every public seaplane base shall have the following safety equipment:

(1) At least one life preserver of the ring or throw type with sufficient line attached shall be available on the ramp or dock or in the emergency boat.

(2) A boat and operable motor shall be immediately available for use at all times that flights are in progress.

(3) When required in the interest of safety, at least one mooring anchor and buoy shall be so located that it can be approached from any direction, and it shall be located at least 150 feet from any shoreline obstructions or other objects or structures.

(4) An adequate supply of lines for heaving or towing, securing or rescue operation shall be kept available.

(5) All aviation fuel dispensed at a public seaplane base shall be filtered to be free of solid matter in excess of 5 microns particle size and to have a free water content less than 30 parts per million parts of fuel. At least one fire extinguisher shall be available in the vicinity of the fuel pump or at the ramp or dock. It must be a minimum of ten pounds of carbon dioxide, or equivalent.

(l) Privately-owned Commercial Seaplane Base. A privately-owned commercial seaplane base is a seaplane base used for commercial purposes. The persons who may use the seaplane base land area are to be determined by the owner of the base. Licensing requirements are the same as in Aero 12-b-c-d-e-f-g-h-i.

Aero 12A Seaplane Operations on Public Waters

(a) Aero 12A covers seaplane operations on public waters within the following counties: Hennepin, Ramsey, Carver, Dakota, Washington, Scott and Anoka.

(b) Seaplane operations are prohibited on all public waters in the seven-

county area described above except for the following bodies of water upon which seaplane operations are permitted.

Anoka County
- Round Lake
- Lake George
- Pickerel Lake
- Coon Lake
- Linwood Lake
- Howard Lake
- Mud Lake
- Peltier Lake
- Centerville Lake
- George Watch Lake
- Rice Lake
- Reshenav Lake
- Otter Lake
- Clear Lake
- Ham Lake
- Martin Lake
- Mississippi River

Ramsey County
- Bald Eagle Lake
- White Bear Lake
- Turtle Lake
- Lake Owasso
- Mississippi River

Hennepin County
- Bryant Lake
- Medicine Lake
- Eagle Lake
- Fish Lake
- Lake Independence
- Lake Sarah
- French Lake
- Diamond Lake
- Mississippi River
- Whaletail Lake
- Lake Minnetonka, except the following areas:
  - Gray's Bay, St. Alban's Bay, Tanager Lake, Peavey Lake, Forest Lake, Seton Lake, Black Lake, Emerald Lake, Libb's Lake, French Lake.

Washington County
- Lake Elmo
- Big Marine Lake
- Big Lake
- Onera Lake
- Forest Lake
- Mississippi River
- St. Croix River

Dakota County
- Crystal Lake
- Orchard Lake
- Lake Marion
- Byllesby Reservoir
- Mississippi River
- St. Croix River

Scott County
- Pleasant Lake
- Cedar Lake
- Geis Lake
- Spring Lake
- Prior Lake West
- Prior Lake East

Carver County
- Lake Pattersen
- Tiger Lake
- Parley Lake
- Pierson Lake
- Lake Minnewashta
- Lake Riley
- Hazeltine Lake
- Lundsten Lake
- Lake Waconia
- Goose Lake
- Oak Lake
- Mud Lake

(c) Restrictions as to White Bear Lake, Lake Minnetonka and Lake Owasso. All seaplane operations are prohibited from 11 a.m. (CDST) to 6 p.m. (CDST) on Saturdays, Sundays, and national legal holidays between June 1 and September 15 on the following public waters:

(1) Lake Minnetonka and all bays and lakes therein.

(2) White Bear Lake and all bays and lakes therein.

(3) Lake Owasso and all bays and lakes therein.

(d) Nothing in Aero 12A shall be construed to prohibit the landing or taking off of a seaplane in case of a bona fide emergency.

(e) All seaplanes must comply with marine traffic rules and regulations if such rules and regulations do not interfere with the safe operation of aircraft.

Aero 13 Unlicensed Landing Areas

(a) Unlicensed Landing Area. An unlicensed landing area shall mean any area of land or water, other than a licensed airport or seaplane base, which is used or is made available for the landing and takeoff of aircraft for the purpose and in the manner described herein. No person shall use or make available such unlicensed landing area except in compliance with the provisions of this section.

(b) Temporary Operations. Any area of land or water may be used as an unlicensed landing area for temporary operations by the following for the purpose designated:

(1) A person holding a private pilot's certificate, or higher rating, for private use for temporary operations.

(2) A person, firm or corporation holding a license as a commercial operator for temporary operations in connection with commercial operations.

(c) Requirements for Use of Unlicensed Landing Areas. No person shall use or make available the use of an unlicensed landing area except in conformity with the following conditions:

(1) Aircraft shall not be stored or regularly based at an unlicensed landing area.

(2) The landing area proposed to be used shall be of sufficient length and width and free from obstructions, and the surface shall be in suitable condition to permit the safe operation of the type of aircraft to be used thereon.

(3) The aircraft owner or operator shall have the permission of the landowner to use the landing area or any facilities that will be used in his operation for the purpose and time intended.

(4) The use of the landing and operating area shall in no way endanger persons or property, and suitable safeguards necessary to protect the safety of passengers and public shall be provided.

(5) Where it uses an unlicensed water landing area, the aircraft shall carry an approved type of life preserver for the pilot and each passenger.

Aero 14 Public Heliport and Privately-owned Commercial Heliport

(a) Public Heliport. Any heliport, whether privately or publicly owned, on which any kind of commercial aviation service is available to the public or the public use of which for aeronautical purposes is invited, permitted, or tolerated by the owner or person having right of access. A public heliport will be granted a license when it is shown that it has met the minimum requirements stated herein.

(1) Takeoff and Landing Area. This area is utilized for accelerating to the safe climb-out speed from either a hovering start or from a standing start in the case of a rolling takeoff. It must be of sufficient length so that a

landing and stop straight ahead can be effected within the area, in the event of power failure, within the distance required to accelerate to the safe climb-out speed. Adequate width must be provided to ensure a margin of safety consistent with the size of the helicopters to be operated, cross-wind condition, and similar contingencies. In case of rooftop sites, the requirements set forth in this subparagraph (1) may be waived by the Commissioner of Aeronautics.

(2) Access Paths. A public heliport must have at least two access paths. At least two of the access paths must be located that the lines bisecting them shall form an angle of not less than 90 degrees at their intersection. An access path is an obstruction-free flight path in a plane leading outward and upward from a point 50 feet beyond the end of the takeoff and landing area. An access path rises vertically one foot for each eight feet horizontally. If the access path is curved, its centerline must have a turning radius of not less than 600 feet. In width, the access path flares out from the width of the landing area to a maximum width of 1,000 feet. The angle of the flare is 10 degrees on each side.

(3) Approach Area. The area beneath the access paths must permit emergency landings in case of engine failure without serious damage to helicopter occupants or persons or property below.

(4) All aviation fuel dispensed on any public heliport shall be filtered to be free of solid matter in excess of 5 microns particle size and to have a free water content of less than 30 parts per million parts of fuel. At least one fire extinguisher shall be available whether or not fuel is dispensed on the site. It must be a minimum of ten pounds of carbon dioxide or equivalent.

(5) Wind Indicator. All public heliports shall be equipped with a wind cone which must be clearly visible from pattern altitude.

(6) To afford adequate protection to the public, a fence or barricade or other adequate safety precautions shall be required around the takeoff and landing area to keep the public from the operational area or the landing pad shall be elevated sufficiently to provide a 6′ 6″ vertical clearance from the low edge of the tail-rotor arc to the ground.

(b) Privately-owned Commercial Heliport. A privately-owned commercial heliport is a heliport used for commercial purposes. The persons who may use the heliport are to be determined by the owner of the heliport. The privately-owned commercial heliport must meet the standards of Aero 14.

Aero 15 Reserved for short takeoff and landing (STOL) area and for vertical takeoff and landing (VTOL) area.

Aero 16 Personal-use Landing Areas

(a) Personal-use Landing Area. A personal-use landing area shall mean any area on land or water on which aircraft are stored or regularly based and/or from which aircraft can be operated. If an applicant meets the qualifications set forth in Aero 16 for a personal-use landing area, he may be granted one of the following three licenses for that site, whichever is applicable.

(1) Personal-use Landing Field License

(2) Personal-use Heliport License

(3) Personal-use Seaplane Base License

(b) Requirements for a License for a Personal-use Landing Area.

(1) Hazards. A personal-use landing area shall not impose undue hazards upon adjoining property or its occupants or endanger the users or use of existing surface communication or transportation.

(2) Operation. A personal-use landing area shall not interfere with the safe operation of any public airport or with the safety of any state or federal airway.

(3) Use. A personal-use landing area shall not be held out as available for public use or caused or be authorized to be displayed on any chart for public distribution.

(4) Noncommercial Uses. A personal-use landing area shall not be used for any commercial purposes except for aerial spraying and dusting, which activities may be conducted from a personal-use landing area.

(5) Each personal-use landing area must have a license of one of the types described above.

(c) Personal-use Landing Area License. If the applicant desires a license for a personal-use landing area on land, then he shall, if the site meets the specifications set forth herein, be granted a personal-use landing field license for that site.

(d) Personal-use Heliport License. A personal-use landing area for the exclusive use of helicopters shall be licensed as a personal-use heliport. In addition, a personal-use heliport must meet the standards set forth in Aero 14 (a) (1) and (3) and shall have at least one access path meeting the standards of Aero 14 (a) (2). The site must also meet the above requirements set forth in Aero 16.

(e) Personal-use Seaplane Base License. A personal-use seaplane base license shall apply to the land area from which operations are conducted and to the water area designated for its operation. When two or more bases located on the same body of water are under different ownership or control, each base shall obtain a separate personal-use seaplane base license. The site must also meet the above requirements as set forth in Aero 16.

CHAPTER THREE: AERO 17-27

Aero 17 General Commercial Operations Regulations

(a) Commercial Operations. "Commercial Operations" means any operations of an aircraft for compensation or hire; or any services performed incidental to the operation of any aircraft for which a fee is charged or compensation received, including but not limited to, the servicing, maintaining and repairing of aircraft, the rental or charter of aircraft, the operation of flight or ground schools, the operation of aircraft for the application or distribution of chemicals or other substances, aerial photography and surveys, air shows or expositions, parachute jumping, and the operation of aircraft for fishing. "Commercial Operations" also means brokering or selling of any of the aforesaid services but does not include any operations of aircraft as common carriers certificated by the federal government or the services incidental thereto (Minnesota Statutes 1957, Section 360.013, Subd. 11).

(b) License. Every person who does in fact provide or who advertises, represents or holds himself out as giving or offering to provide such service, as described in Minnesota Statutes 1957, Section 360.013, Subdivision 11, must be licensed by the Commissioner of Aeronautics. The license shall contain endorsements showing the type or types of commercial operations the licensee is authorized to perform. Such person must be licensed by the Commissioner before he advertises, represents or holds himself out as giving or offering to provide such service or services.

(c) Application. Application for license shall be made on forms supplied by the Commissioner of Aeronautics.

(d) Fee. The fee shall be $10.00 annually and must accompany the application.

(e) Duration and Renewal. The license issued under this section shall be effective for one year from the date of issuance thereof and shall be renewed annually. Application for renewal shall be made 30 days before the expiration of the current license.

(f) Nontransferability. The license shall not be transferable to other persons.

(g) Display. The license issued under this section shall be posted in a prominent place in the office of the licensee.

(h) Notice of Change. The licensee shall immediately notify the Department of Aeronautics in writing of any change in the status of such commercial operation relating to ownership, activities, aircraft or key personnel.

(i) Report of Accidents. Each licensee shall be responsible for reporting all accidents which occur while aircraft are being operated in connection with his operation and involve any of the following conditions.

(1) An accident which results in serious injury or death to an occupant of an aircraft, or to any person by direct contact with the aircraft.

(2) An accident which occurs as the result of a violation of the Rules and Regulations of the Commissioner or of the Federal Aviation Administration.

(3) An accident which results in substantial damage to an aircraft. "Substantial damage" as used herein is defined as follows:

(aa) Except as provided in subparagraph (bb) of this paragraph, substantial damage means damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component.

(bb) Engine failure, damage limited to an engine, bent fairings or cowling, dented skin, small punctured holes in the skin or fabric, ground damage to rotor or propeller blades. Damage to landing gear wheels, tires, flaps, engine accessories, brakes, or wing tips are not considered "substantial damage" for the purpose of this part.

Reports of all accidents shall be made on NTSB Form 6120.1, and in addition to such report, the operator shall give immediate notice to the Commissioner by telephone or telegraph of any accident involving death to any person.

(j) Place of Business

(1) Each applicant for a commercial operations license must have a place of business.

(2) In addition, if the commercial activity includes the operation of aircraft, then such applicant's base of operation must be on a public airport or a public seaplane base licensed by the Commissioner as provided by law, or an airport owned by the Metropolitan Airports Commission, except when such commercial operation is limited to:

(aa) Spraying and dusting; or

(bb) The exclusive lease of the aircraft involved for a period of more than 30 days by a person who is not a commercial operator to a person who is not a commercial operator.

If the applicant does not own the airport or seaplane base he must submit evidence from the owner or municipality that he meets the airport owner's minimum standards for such commercial operation and is authorized to operate from such airport.

(k) Aircraft. Each aircraft used by a licensee for commercial operation shall possess a currently-valid certificate of airworthiness as issued by the Federal Aviation Administration, shall be continually maintained in an airworthy condition, and shall be currently registered with the Department of Aeronautics, or be taxed as flight property by the Department of Revenue, as required by the laws of this state. Such flight property tax payments must be current.

(l) Airmen. Each airman engaged in commercial operations or employed by the commercial operator shall hold a currently-valid airman's certificate, as issued by the Federal Aviation Administration, together with the appropriate ratings for the type of equipment to be operated or the kind of activity taking place.

(m) Records. Each licensed commercial operator shall maintain, at the base of operations, basic records which must be kept up to date as follows:

(1) Each flight made in equipment owned by a licensee shall be recorded. The register shall show the date, time, duration, and the pilot's name.

(2) An accurate list of airman personnel employed by the commercial operator, together with the airman certificate type, number of ratings, address, and where necessary, date of last physical examination.

(3) A list of aircraft used in the commercial operation and the current Minnesota Department of Aeronautics registration decal number of each aircraft.

(n) Hangar. Persons engaged in commercial operations involving the operation of aircraft shall have hangar facilities, either owned or available for the type of operation involved, and such aircraft shall be properly hangared, or in lieu thereof, other facilities or methods of avoiding the hazards which arise from the exposure of unhangared aircraft to weather shall be available.

(o) Compliance with the Law. A person engaged in commercial operations shall comply with all laws of the State of Minnesota and the Rules and Regulations promulgated by any state department or agency.

(p) Cooperation. The applicant for a commercial operations license shall offer full cooperation in respect to any inspection which may be made of his operation upon proper demand at reasonable hours by the Commissioner or any authorized representative of the Commissioner prior to or subsequent to the issuance of a license.

(q) Shared-expense flights. Part 61.118 of the Federal Aviation Regulations shall apply as rules of this department in determining whether or not a shared-expense flight is a commercial operation.

(r) Leasing

(1) Any person who owns an aircraft and leases or rents that aircraft to a person not holding a commercial operations license under Chapter 3 is required to obtain a commercial operations license under these rules.

(2) However, no commercial operations license shall be required of a person who owns his own aircraft and leases or rents his aircraft to a party who holds a commercial operations license.

Aero 18 Flight School

(a) Flight School. Any person engaged in giving or offering to give dual flight time, instruction or flight time leading to a pilot's certificate or rating, or engaged in selling or giving solo flight time to persons holding less than a private pilot's certificate, for hire or reward, or advertising, representing, or holding himself out as giving or offering to give such instruction, shall be considered to be operating a flight school, except:

(1) Company Instruction. A company engaged in flight operation giving instruction to its own employees in furtherance of their duties in conjunction with such operation activity.

(2) Public Schools. Any public school, the University of Minnesota, or any institution of higher learning accredited by the North Central Association of Colleges and Secondary Schools and approved by it for carrying on collegiate work.

(b) Minimum requirements. To be eligible for a flight school endorsement, an applicant shall show compliance with the following minimum requirements:

(1) Records and Office. The school operator shall keep and maintain complete and adequate records of the flight instruction given to all regularly enrolled students, showing the time and date, the amount of dual or solo instruction, the maneuvers given, the aircraft used and the name of the instructor of each dual flight. These records shall be available for inspection at the flight school office and shall be retained for at least one year from the date of the last entry. The flight school operator shall show that he has an office of adequate size and containing the necessary facilities and equipment, including a telephone, for the operation of the school. It shall have a bulletin board on which shall be displayed all required notices, traffic patterns, flight rules, and other data necessary for the operation of a school.

(2) If the applicant is not licensed to perform aircraft servicing, maintaining and repairing, he must show a contract or agreement with a commercial operator licensed to perform this service for all aircraft used in the flight school. A copy must be attached to the application.

(c) Curriculum. The applicant must show to the satisfaction of the Commissioner a curriculum so organized for each course offered as to ensure that the student successfully completing the course will qualify for the certificate or rating sought. In the case of an FAA approved school, FAA curriculum will be acceptable. The flight instruction given to each regularly enrolled student shall be in accordance with such curriculum, a copy of which shall be submitted with the application, and a copy of which shall be made available to each student.

(d) Rules and Regulations. The flight school operator shall establish and enforce the rules and regulations which shall govern his flight school operation, including rules relating to the traffic pattern, practice areas, taxi rules, and other safety procedures. These rules and regulations and a diagram thereof shall be prominently posted at the airport and a copy shall be submitted with the application.

(e) Requirements for First Solo. The school operator shall not authorize or permit any student to solo an aircraft until he has had a minimum of 8 hours of dual instruction.

(f) Insurance. The applicant for a flight school endorsement on a commercial operations license must hold insurance contracts valid and in force for the duration of the license which provide coverage for each accident in the following types and amounts, with a reliable insurance company, or companies, authorized by the Insurance Commissioner to do business in the State of Minnesota:

(1) $50,000 minimum per passenger seat for passenger liability, to include the solo student.

(2) $50,000 per person and $150,000 per accident minimum for aircraft, public liability for bodily injury.

(3) $50,000 minimum per plane for property damage.

Any contract of insurance to be approved by the Commissioner shall carry an endorsement stating that such contract cannot be canceled by the insurer until after five days' notice in writing of such cancellation has been given the Commissioner by the insurer. In any case where an insurance contract is canceled by the insured, notice of such cancellation shall immediately thereafter be given the Commissioner by the insurer.

(g) Faithful Performance Bond Covering Students. The applicant must file with the Commissioner of Aeronautics of the State of Minnesota a continuous corporate surety bond to the State of Minnesota in the sum of $5,000 conditioned for the faithful performance of all contracts and agreements with students made by such person, firm, association or corporation, or their salesmen. The aggregate liability for the surety for all breaches of the conditions of the bond in no event shall exceed the principal sum of $5,000. The surety on any such bond may cancel such bond upon giving sixty days' notice in writing to the Commissioner of Aeronautics of the State of Minnesota, and thereafter the surety shall be relieved of liability for any breach of conditions occurring after the effective date of cancellation, provided, however, that whenever a bond under this section ceases to be in effect for any reason, the flight school license shall be revoked. The bond form shall be provided by the Commissioner of Aeronautics. A copy of the executed bond certificate will be attached to the application. This section, (g), shall become effective on November 1, 1969.

Aero 19 Ground School and Aeronautical Correspondence School

(a) Ground School and Aeronautical Correspondence School. A ground school or aeronautical correspondence school shall be any person giving or offering to give instruction in aeronautical ground subjects leading to a pilot's certificate or rating, for hire or reward, except any public school, the University of Minnesota, or any institution of higher learning accredited by the North Central Association of Colleges and Secondary Schools and approved by it for carrying on collegiate work.

(b) Requirements. To be eligible for a ground school or an aeronautical correspondence school endorsement, the applicant shall meet the following minimum requirements:

(1) Classroom. Applicant shall maintain a suitable classroom with adequate seating facilities for the maximum number of students enrolled in each class, such classroom to be properly heated, lighted, ventilated, and have access to proper sanitary facilities. This requirement shall not apply to areonautical correspondence schools.

(2) Records. The applicant shall maintain adequate records of the instruction given, which shall show the date, the hours of attendance, the subjects covered, the examination given, and the grade achieved by each student. Such records shall be maintained for at least one year from the date of last entry and shall be available for inspection.

(3) Curriculum. Each school shall show to the satisfaction of the Commissioner a curriculum so organized as to properly qualify each student completing the particular course for the grade of pilot certificate he is seeking. In the case of an FAA approved school, FAA curriculum will be acceptable.

(4) Faithful performance bond covering ground school and aeronautical correspondence school students. The applicant must file with the Commissioner of Aeronautics of the State of Minnesota a continuous corporate surety bond to the State of Minnesota in the sum of $5,000 conditioned for the faithful performance of all contracts and agreements with students made by such person, firm, association or corporation, or their salesmen. The aggregate liability for the surety for all breaches of the conditions of the bond in no event shall exceed the principal sum of $5,000. The surety on any such bond may cancel such bond upon giving sixty days' notice in

writing to the Commissioner of Aeronautics of the State of Minnesota, and thereafter the surety shall be relieved of liability for any breach of conditions occurring after the effective date of cancellation, provided, however, that whenever a bond under this section ceases to be in effect for any reason, the ground school or aeronautical correspondence school license shall be revoked. The bond form shall be provided by the Commissioner of Aeronautics. A copy of the executed bond certificate will be attached to the application.

(5) The applicant must have at least one qualified flight instructor or ground instructor (authorized instructor) to certify training reports.

(6) The applicant must be able to certify to the student that he has satisfactorily completed the course of instruction or home study in the appropriate knowledge areas for the rating sought.

(c) The applicant must meet the requirements of Aero 17.

Aero 20 Approved Schools

(a) Approval. In any case in which an agency or department of this state or of the federal government requests or requires the Commissioner of Aeronautics to recommend or approve a flight or ground school for training in flight or other aeronautical subjects, such recommendation or approval will be given under the following conditions:

(1) License. The flight or ground school operator shall hold a commercial operations license.

(2) Courses. The approval or recommendation of the Commissioner shall specify each course for which the applicant has qualified.

(3) Flight Curriculum. The applicant shall submit a flight curriculum which shall show the following:

(aa) The conditions and requirements to be met by each student for enrollment in each course.

(bb) Minimum and maximum number of flight hours for each course.

(cc) The conditions under which a student may be graduated or terminated from the course.

(4) Ground School Curriculum. The applicant shall submit a ground school curriculum which shall show the following:

(aa) The minimum and maximum number of ground school hours for each course; provided, that the minimum number of ground school hours for each course shall not be less than the following: private course — 50 hours; commercial course — 70 hours; instructor course — 40 hours; instrument course — 40 hours.

(bb) An outline of the subject matter to be included in each course and the approximate sequence in which it will be given.

(cc) Each student will be required to complete the ground school prescribed for each course prior to his completion of the flight course, or the student in lieu of attendance at the ground school has passed an appropriate examination in the ground school subjects as prescribed for each course.

(dd) The Commissioner may, by subsequent order, increase or decrease the minimum number of ground school hours prescribed herein or

the sequence in which the ground instruction shall be given, or may otherwise change the requirement of this subsection.

(5) Approval of Curriculum. Before any curriculum will be accepted and approved by the Commissioner, it must be adequate to qualify the student completing the course for the certificate or rating for which the course is designed, and further, the applicant must show that the curriculum is acceptable to the agency or department requesting or requiring the approval of the Commissioner. It will be the responsibility of the school operator to conduct his flight and ground school operation in accordance with the curriculum submitted by him, and in accordance with the Rules and Regulations of the Commissioner.

(b) The applicant must comply with the requirements of Aero 17.

Aero 21 Aircraft Charter

(a) Endorsement for Charter Operations. Any person engaged in flying persons or property from place to place, or offering to provide such service for hire or reward, who does not hold a certificate of public convenience and necessity from the Civil Aeronautics Board or its successor, or who does not hold a license as a commuter air carrier under Aero 26, shall be deemed to be engaged in a charter operation and shall have an endorsement on his commercial operations license to certify to his authority to engage in charter operations.

(b) The applicant shall be the holder of an air taxi certificate with operating specifications as issued by the Federal Aviation Administration, and if required, a letter of registration from the Civil Aeronautics Board. A copy of this certificate with operating specifications shall be attached to the application.

(c) The applicant must show that he has an office of adequate size on an airport which contains the necessary facilities and equipment, including a telephone.

(d) If the applicant is not licensed to perform aircraft servicing, maintaining and repairing, he must show a contract or agreement with a commercial operator licensed to perform this service for all aircraft used in his charter operation. A copy of the contract or agreement must be attached to the application.

(e) Insurance. The applicant for a charter endorsement on a commercial operations license must hold insurance contracts valid and in force for the duration of the license which provide coverage for each accident in the following types and amounts, with a reliable insurance company, or companies, authorized by the Insurance Commissioner to do business in the State of Minnesota:

(1) $50,000 minimum per passenger seat for passenger liability.

(2) $50,000 per person and $150,000 per accident minimum for aircraft, public liability for bodily injury.

(3) $50,000 minimum per plane for property damage.

Any contract of insurance to be approved by the Commissioner shall carry an endorsement stating that such contract cannot be canceled by the insurer until after five days' notice in writing of such cancellation has been

given the Commissioner by the insurer. In any case where an insurance contract is canceled by the insured, notice of such cancellation shall immediately thereafter be given the Commissioner by the insurer.

(f) The applicant must meet the requirements of Aero 17.

Aero 22 Aircraft Rental or Leasing

(a) Endorsement for Aircraft Rental or Leasing. Any person renting or leasing aircraft or offering to rent or lease aircraft for hire or reward shall be deemed to be engaged in the business or renting or leasing aircraft and must have an endorsement on his commercial operations license certifying his authority to engage in such activity.

(b) Records. The holder of a commercial operations license with an aircraft rental or lease endorsement shall keep and maintain a complete and adequate set of records to show the following.

(1) The name of the pilot renting or leasing an aircraft.

(2) The identification of the aircraft rented or leased.

(3) The date, time and duration of the flight for which the aircraft was rented or leased.

These records shall be available for inspection at the licensee's office and shall be retained for at least one year from the date of the last entry.

(c) Qualifications of Lessee. The commercial operator shall determine before initially renting or leasing any aircraft that the lessee thereof is properly licensed and rated to fly the type of aircraft to be rented or leased, and when in the interest of safety, the operator shall determine if a flight check is necessary or desirable, such flight check shall be given the lessee by a person holding an effective commercial pilot's rating or instructor rating. Such commercial pilot or instructor must be present when an aircraft is checked out, or someone capable of determining that the aircraft is properly serviced.

(d) Maintenance. If the applicant is not licensed to perform aircraft servicing, maintaining and repairing, he must show a contract or agreement with a commercial operator licensed to perform this service for all aircraft used in the rental operation. A copy of the contract or agreement must be attached to the application.

(e) Insurance. The applicant for a rental or lease endorsement on his commercial operations license must hold insurance contracts valid and in force for the duration of the license which provide coverage for each accident in the following types and amounts with a reliable insurance company, or companies, authorized by the Insurance Commissioner to do business in the State of Minnesota:

(1) $50,000 minimum per passenger seat for passenger liability.

(2) $50,000 per person and $150,000 per accident minimum for aircraft, public liability for bodily injury.

(3) $50,000 minimum per plane for property damage.

Any contract of insurance to be approved by the Commissioner shall carry an endorsement stating that such contract cannot be canceled by the

insurer until after five days' notice in writing of such cancellation has been given the Commissioner by the insurer. In any case where an insurance contract is canceled by the insured, notice of such cancellation shall immediately thereafter be given the Commissioner by the insurer.

(f) The applicant must meet the requirements in Aero 17.

Aero 23 Air Ambulance Service

(a) Endorsement for Air Ambulance Service. Any person engaged in flying ambulance stretcher cases from place to place, or offering to provide such service for hire or reward, shall be deemed to be engaged in air ambulance service and shall have an endorsement on his commercial operations license certifying his authority to engage in air ambulance service.

(b) Aircraft. Each aircraft to be used as an ambulance for the purpose of transporting stretcher cases shall have ample area to accommodate a regulation ambulance cot or aircraft ambulance stretcher in a horizontal position, and shall be so designed as to permit loading without excessive tilting. The aircraft shall be equipped with at least one safety belt for securing the person and cot or stretcher to the aircraft.

(c) Maintenance. If the applicant is not licensed to perform aircraft servicing, maintaining and repairing, he must show a contract or agreement with a commercial operator licensed to perform this service for all aircraft used in his air ambulance service. A copy of the contract or agreement must be attached to the application.

(d) Insurance. The applicant for an air ambulance service endorsement on a commercial operations license must hold insurance contracts valid and in force for the duration of the license which provide coverage for each accident in the following types and amounts with a reliable insurance company, or companies, authorized by the Insurance Commissioner to do business in the State of Minnesota:

(1) $50,000 minimum per passenger seat for passenger liability.

(2) $50,000 per person and $150,000 per accident minimum for aircraft, public liability for bodily injury.

(3) $50,000 minimum per plane for property damage.

Any contract of insurance to be approved by the Commissioner shall carry an endorsement stating that such contract cannot be canceled by the insurer until after five days' notice in writing of such cancellation has been given the Commissioner by the insurer. In any case where an insurance contract is canceled by the insured, notice of such cancellation shall immediately thereafter be given the Commissioner by the insurer.

(e) Transportation of Dead Human Bodies. The provisions contained in this section shall also apply to the transportation of dead human bodies by airplane, and such bodies shall be transported on the type of cot or stretcher described in Aero 23 (b).

(f) Air Ambulance Service. The air ambulance service shall be the holder of an air taxi certificate with operating specifications as issued by the Federal Aviation Administration, and if required, a letter of registration from the Civil Aeronautics Board. A copy of this certificate with operating specifications shall be attached to the application.

(g) The applicant must meet the requirements of Aero 17.

Aero 24 Aerial Spraying or Dusting

(a) Aircraft Spraying or Dusting. Any person applying or offering to apply chemicals or other substances from an aircraft shall be deemed to be engaged in aerial spraying or dusting.

(b) Endorsement. Before any person may engage in aerial spraying or dusting for hire or reward, he shall first obtain an endorsement on his commercial operations license certifying his authority to engage in such activity. This section shall not apply to pilots employed by commercial operations licensees. If the Governor declares an emergency to exist with respect to crop conditions, the Commissioner may authorize variances from this section.

(c) Spraying or Dusting Pilots. Each commercial operations licensee authorized to engage in aerial spraying or dusting shall complete pilot qualification forms furnished by the Department for each person engaged in piloting aircraft in the licensee's spraying or dusting operation. These forms shall be forwarded to the Department of Aeronautics. If the pilots' qualifications meet the minimum qualifications prescribed by these regulations, certificates will be prepared and forwarded, certifying that the pilots are authorized to engage in aerial spraying or dusting in the licensee's operation. These certificates shall be in actual possession of the pilots at all times when engaged in aerial spraying or dusting in this state.

(d) Department of Agriculture Recommendation. No endorsement authorizing a commercial operator to engage in aerial spraying or dusting will be issued and no pilot will be certified as being qualified to do aerial spraying or dusting unless the Department of Agriculture recommends approval of such endorsement or certificate.

(e) Aircraft and Equipment. Every aircraft used for aerial spraying or dusting in this state shall be provided with a positive method of shutting off distribution of chemicals or other substances which shall prevent material from leaking or dropping except over the areas of intended application.

(f) Pilot's Special Qualifications. Each pilot engaging in aerial spraying or dusting shall, in addition to possessing a commercial pilot's certificate, have:

(1) 1,000 hours flying time; or

(2) 30 hours of actual aerial application or distribution of chemicals or other substances; or

(3) 5 hours of simulated crop spraying or dusting under the supervision of a pilot with a commercial rating and a minimum of one year's crop spraying or dusting experience and the recommendation of such pilot who supervised the simulated training; or

(4) 5 hours of dual instruction in crop spraying or dusting, such dual to be given by a pilot with commercial and instructor ratings, who has a minimum of one year's spraying or dusting experience, and the recommendation of such pilot who gave such dual instruction; and

(5) 10 hours of flying time in the preceding six months in the type of aircraft to be used.

(g) Nonresident Applicant. Every nonresident commercial operation applicant shall give his permanent address and the name of the airport from which his operations are conducted in his resident state.

(h) Aircraft and Pilot Safety Equipment. Every aircraft used in spraying or dusting shall be equipped with quick-detachable safety belt and a quick-detachable shoulder harness, and each pilot shall wear a protective headgear during such flight operation.

(i) Aircraft. In the application, the aerial applicator must inform the Commissioner of all aircraft (by factory make, model, year and "N" number) that the aerial applicator intends to use within the state.

(j) The applicant must meet the requirements of Aero 17 unless specifically excepted therefrom.

Aero 25 Aircraft Servicing, Maintaining and Repairing

(a) Shop and Maintenance Facilities. The applicant shall show available shop and maintenance facilities, equipment and qualified personnel sufficient to maintain aircraft, the repair of which is undertaken. As used herein, "shop" shall mean a building or portion of a building of adequate size to completely enclose at least one fully-assembled aircraft with sufficient space to work on the aircraft. The shop shall be properly heated, lighted, and ventilated, and shall have a floor of substantial construction. Adequate fire protection equipment shall be provided and at least one outward swinging exit door for personnel shall be available. The shop shall be equipped with all commonly used tools and equipment for the servicing of aircraft. At least one licensed "A & P" mechanic or one "A" mechanic and one "P" mechanic shall be employed, together with additional personnel as may be necessary.

(b) A fully-charged fire extinguisher, a minimum of ten pounds of carbon dioxide, or equivalent, shall be kept available in each shop in which aircraft or component parts thereof are customarily repaired.

(c) The applicant must meet the requirements of Aero 17.

Aero 26 Commuter Air Carriers

(a) Any person offering to provide scheduled air transportation in this state must obtain a commercial operations license and a scheduled air carrier certificate of registration from the Commissioner of Aeronautics before engaging in such activity, and annually thereafter.

(b) As used in these rules, "air carrier" means that person owning, controlling, operating or managing aircraft as a common carrier of either persons or property, or both, for compensation on regularly-scheduled flights.

(c) These regulations do not apply to that portion of an air carrier's operations in this state which is conducted between points named in a then-current certificate of public convenience and necessity issued by the Civil Aeronautics Board, or its successor.

(d) No air carrier shall operate aircraft on regularly-scheduled flights except in accordance with the provisions of these regulations.

(e) To obtain the commercial operations license and the certificate of registration, the following are minimum requirements which must be met by the air carrier. Application shall be on forms supplied by the Commissioner of Aeronautics.

(f) The air carrier shall be the holder of an air taxi certificate with operating specifications as issued by the Federal Aviation Administration.

and if required, a letter of registration from the Civil Aeronautics Board. A copy of this certificate with operating specifications shall be attached to the application.

(g) A copy of current use agreements with owners of each airport to be served in the state shall be attached to the application. This agreement shall set forth what facilities will be used on the airport.

(h) Faithful Performance Bond covering advance ticket sales. The air carrier must file with the Commissioner of Aeronautics of the State of Minnesota a continuous corporate surety bond to the State of Minnesota in the sum of $10,000 conditioned upon the refund of all unperformed advance ticket sales to passengers made by such air carrier or his agents. The aggregate liability for the surety of all breaches of the conditions of the bond in no event shall exceed the principal sum of $10,000. The surety on any such bond may cancel such bond upon giving sixty days' notice in writing to the Commissioner of Aeronautics of the State of Minnesota, and thereafter the surety shall be relieved of the liability for any breach of conditions occurring after the effective date of cancellation, provided, however, that whenever a bond under this section ceases to be in effect for any reason, said certificate of registration shall be revoked.

The bond form shall be provided by the Commissioner of Aeronautics. A copy of the executed bond certificate will be attached to the application.

The bond shall not enlarge upon or alter in any way the ticket contract between the air carrier and its customer.

(i) Aircraft. In the application, the air carrier must inform the Commissioner of all aircraft (by factory make, model, and "N" number) that the air carrier intends to use within the state.

(j) Schedules and Rates. The air carrier must submit a copy of its proposed schedules and its proposed passenger and freight rates with each application. No schedule or rate change shall be made without notifying the Commissioner of Aeronautics as to such change at least ten days before such change is to go into effect.

(k) The air carrier shall file with the Commissioner of Aeronautics a copy of all reports which it files with the Civil Aeronautics Board or its successor agencies, such filing to be done within ten days after such reports are filed with said agencies.

(l) Compliance with the Law. A person engaged in commercial operations as a scheduled air carrier shall comply with the laws of the State of Minnesota and the Rules and Regulations promulgated by any state department or agency and the Federal Government.

(m) Nontransferability. The license and the certificate shall not be transferable to other persons.

Aero 27 Flying Clubs

(a) Flying Club. Minn. Stat. 360.013, Subd. 18 (1967), reads as follows:

" 'Flying Club' means any person other than an individual which neither for profit nor reward, owns, leases, or uses one or more aircraft for the purpose of instruction or pleasure, or both."

(b) Registration. Each flying club, which at any time during a preceding calendar year, has five or more members shall register annually with the Commissioner of Aeronautics of the State of Minnesota. Such registration shall report conditions as of December 31 of each year, and shall be filed with the Commissioner by January 31 of each year.

(1) The name and address of the flying club, the airport or airports at which its aircraft are based, and the make, model and "N" number of the aircraft that the club either owned or used during the past calendar year.

(2) The form of organization of the flying club — that is, whether it is a corporation or a partnership.

(3) The name, home address and phone number and business address and phone number of the Club Safety and Operations Officer.

(4) A statement describing what remuneration was paid to members of the club, monthly and annually, during the preceding calendar year or preceding fiscal year, as the case may be, a description of the services rendered by such members to the club, and a description of the goods sold by such member of the club.

(c) Club Safety and Operations officer. Every flying club must appoint a Club Safety and Operations Officer and set forth his duties in their operating rules or bylaws.

(d) Responsibilities of the Club Safety and Operations Officer. The Club Safety and Operations Officer will be responsible for the records of the club's operation. These records must be up to date and in an orderly form.

These records must contain the following information:

(1) Names and addresses of all current members.

(2) If the flying club is a corporation, then the articles of incorporation and all amendments thereto, the current bylaws, minutes of the corporation, and all shareholder agreements. If the flying club is a partnership, then the current articles of partnership and all current partnership agreements.

(3) All club operating rules.

(4) The share in club assets held by each member, stated by percentage or dollars.

(5) The voting rights of each member, stated by percentage or dollars.

(6) The rights of each member to the assets of the club, stated by percentage or dollars, in case of dissolution of the club if a corporation, and in case of termination of the club, if a partnership.

(7) A statement of financial condition of the flying club at the end of its preceding fiscal year, or at the end of its preceding calendar year, as the case may be, showing the assets and liabilities of the club.

(8) An operating statement of the club for the preceding fiscal year, or the preceding calendar year, as the case may be, showing the profits or losses, or a statement of receipts and disbursements, of the club, as the case may be, for that period of time.

(e) Inspection of Records. The Commissioner of Aeronautics, his deputy, or any employees of the department designated by him, shall have the right to inspect the books and records of any flying club, including but not limited to, the records referred to above.

(f) Statutory Definitions. Statutory definitions, where applicable, shall apply to these rules. As a matter of convenience, the following statutory definitions are set forth below.

(1) Commercial Operations, Minn. Stat. 360.013, Subd. 11

" 'Commercial Operations' means any operations of an aircraft for compensation or hire; or any services performed incidental to the operation of any aircraft for which a fee is charged or compensation received; including, but not limited to, the servicing, maintaining and repairing of aircraft, the rental or charter of aircraft, the operation of flight or ground schools, the operation of aircraft for the application or distribution of chemicals or other substances, aerial photography and surveys, air shows or expositions, parachute jumping, and the operation of aircraft for fishing. 'Commercial Operations' also mean brokering or selling of any of the aforesaid services but do not include any operation of aircraft as common carriers certificated (certified) by the federal government or the services incidental thereto."

(2) Air Instruction, Minn. Stat. 360.013, Subd. 16

" 'Air Instruction' means the imparting of aeronautical information by any aeronautics instructor or in or by any air school or flying club."

(3) Air School, Minn. Stat. 360.013, Subd. 17

" 'Air School' means any person engaged in giving or offering to give, instruction in aeronautics, either in flying or ground subjects, or both, for or without hire or reward and advertising, representing, or holding himself out as giving or offering to give such instructions. It does not include any public school of this state, the University of Minnesota, or any institution of higher learning accredited by the North Central Association of Colleges and Secondary Schools and approved by it for carrying on collegiate work."

(4) Aeronautics Instructor, Minn. Stat. 360.013, Subd. 19 (1967)

" 'Aeronautics Instructor' means any individual engaged in giving instruction or offering to give instruction in aeronautics either in flying or ground subjects, or both, for hire or reward, without advertising such occupation, without calling facilities an 'Air School,' or anything equivalent thereto, and without employing or using other instructors. It does not include any public school of this state, the University of Minnesota, or any institution of higher learning accredited by the North Central Association of Colleges and Secondary Schools and approved by it for carrying on such collegiate work, while engaged in his duties as such instructor."

(5) Person, Minn. Stat. 360.013, Subd. 8 (1967)

" 'Person' means any individual, firm, partnership, corporation, company, association, joint stock association, or body politic; and includes any trustee, receiver, assignee, or other similar representative thereof."

(g) Assets. The word "assets" when used herein, shall mean property which the flying club owns, in whole or in part, or over which it has control, including the club's interest in any owned, rented or leased aircraft.

(h) Flying clubs can be deemed to be commercial operations. A flying club shall be deemed to be engaged in commercial operations and therefore a commercial operations license shall be required:

(1) If any of the club's assets are used by members of the club who:

(aa) Do not have a bona fide and significant percentage of the property interest in the assets of the club; or

(bb) Hold property interest in the club's assets, which property interest is subject to an unreasonable forfeiture; however, a club may set forth in its operating rules and bylaws any reasonable penalties and any reasonable forfeitures so long as the purpose and the actual effect thereof is to enforce valid club rules; or

(2) If the property interest of any member of the club in the club's assets is not transferable; however, the transfer of such property interest may be subject to such reasonable conditions as the club deems reasonably necessary to ensure discipline and payment of dues among its members; or

(3) If any member of the club receives a pecuniary gain or receives any special benefits, which are in excess of the reasonable value of the services rendered to the club by said member, or are in excess of the reasonable value of the goods sold to the club by said member; however, this rule does not prohibit a flying club from paying one or more of its members a reasonable amount for services such as bookkeeping, secretarial, managerial, maintenance and administrative duties of the flying club; or

(4) If the club charters, leases or rents their aircraft or any interest in their aircraft to any persons or organizations other than fully-qualified members of said club; provided, however, that this paragraph shall not prohibit flying clubs from leasing club aircraft to properly licensed commercial operators; or

(5) If the club provides for, or allows, memberships with a duration of less than 90 days; or

(6) If the club advertises, represents, or holds itself out as giving or offering to give, or does in fact provide or arrange for, "air instruction" as an "air school" (see Minn. Stat. 360.013, Subdivisions 16 and 17 (1967)), provided, however, that this rule does not prohibit a club from providing or arranging for "air instruction," so long as it is not for compensation or hire; provided further that this rule does not prohibit a bona fide club member from paying compensation to an "aeronautics instructor" for "air instruction."

(i) A flying club shall not be deemed to be engaged in commercial operations:

(1) Solely for the reason that an "aeronautics instructor" gives "air instruction" for hire to bona fide members of a flying club (see Minn. Stat. 360.013, Subd. 19 (1967) and Regulation (h) (6).

(2) Solely for the reason that a member of the flying club services, maintains or repairs the club's aircraft.

CHAPTER FOUR: AERO 28

Aero 28 General Operation Rules

(a) Scope. This part governs the operation of civil aircraft in the state.

(b) Registration Certificate. A registration certificate issued to the owner of the aircraft by the FAA shall be carried in the aircraft at all times, and the current state registration decal shall be affixed to the aircraft in the prescribed manner.

(c) Airworthiness Certificate. An airworthiness certificate or special authorization issued by the FAA approving its operation shall be carried in the aircraft at all times during flight.

(d) Aircraft and Engine Records. The registered owner of every aircraft certificated as being airworthy by the FAA shall maintain and keep available for inspection and for transfer with the aircraft or engine the following aircraft and engine records:

(1) Flight time of aircraft and each engine.

(2) Reports of inspections.

(e) A mechanical device which records the total time of operation or the total number of engine revolutions may be used in lieu of individual flight entries, provided the totals are recorded in the record at regular intervals.

(f) Entries shall be made showing each repair, rebuilding, and alteration of any aircraft, powerplant, propeller, and such entries shall contain:

(1) An adequate description of the work performed.

(2) The date of completion of the work performed.

(3) The name of the individual, repair station, or manufacturer performing the work.

(4) Signature of the person approving the work performed as airworthy and authorizing the return of the aircraft or component to service.

(g) General. An aircraft shall not be flown unless it is in airworthy condition.

(h) Airworthiness Inspection. An aircraft shall not be flown except for airworthiness flight tests, unless it has been found to be airworthy by a person designated by the FAA.

CHAPTER FIVE: AERO 29-31

AIRMEN

Aero 29 Pilot Operating Rules

(a) Pilot Certificate. No person shall pilot a civil aircraft in this state unless he has in his personal possession at all times while piloting an aircraft a valid pilot certificate with appropriate ratings issued by the FAA or an appropriate and valid foreign pilot certificate. Such certificate shall be presented for examination to any inspector of the FAA or state or local law enforcement officer, or a representative of the Department of Aeronautics of the State of Minnesota upon request of such inspector or enforcement officer.

(b) Medical Certificate and Renewal. No person shall pilot an aircraft under authority of a pilot certificate issued by the FAA unless he has in his personal possession at all times when piloting an aircraft a medical certificate showing that he has met the physical requirements appropriate to his rating within the following time limits:

(1) Student or private pilot: 24 calendar months.

(2) Commercial pilot: 12 calendar months, or 24 calendar months for operations requiring only a private pilot rating.

(3) Airline transport pilot: 6 calendar months, or 12 calendar months for operations requiring only a commercial pilot rating, or 24 calendar months for operations requiring only a private pilot rating.

(c) Operation During Physical Deficiency. A person shall not pilot any aircraft during a period of any known physical deficiency or increase in physical deficiency which would render him unable to meet the physical requirements prescribed for the issuance of his currently effective medical certificate.

Aero 30 Student Pilot Limitations

(a) General Limitations. No student pilot shall pilot an aircraft carrying a passenger or on an international flight or for compensation or hire or in furtherance of a business.

(b) Requirements for First Solo. A student pilot shall not operate an aircraft in solo flight until he is familiar with the pertinent provisions of Part 61 of the Federal Aviation Regulations (FAR) relating to the general and visual flight rules; and he has been found competent by a flight instructor to make such flight and authority therefor has been endorsed by such instructor on the student's pilot certificate for solo flight in that make and model of aircraft.

(c) Flight Area Limitations. A student pilot shall not pilot an aircraft outside a local flying area designated by his flight instructor until his student pilot certificate is endorsed by an appropriately-rated flight instructor who has determined that he is qualified to make a solo cross-country flight in accordance with FAR.

(d) Aircraft Limitations. A student pilot shall not pilot an aircraft other than that of the category, class, and type which has been endorsed on his student certificate by a flight instructor.

(e) Recent Experience. A student pilot who has not piloted a powered aircraft within 90 days shall not pilot such aircraft in solo flight until he has passed a flight check given by a flight instructor and that fact has been endorsed by such instructor in the student pilot's logbook.

(f) Endorsement of Student Pilot Certificate. A flight instructor shall endorse the certificate of any student pilot for solo flight or flights in different categories, classes, and types of aircraft only if he has determined that the student is competent to exercise such privileges with safety, and for cross-country flight only if he has additionally determined that the student has an elementary knowledge of aeronautical charts, meteorological data, and the use of a magnetic compass, in accordance with FAR.

Aero 31 Private and Commercial Pilots

(a) Private Pilot. A private pilot shall not pilot aircraft for compensation or hire; except that he may pilot aircraft in connection with any business or employment in which he is engaged, if the flight is merely incidental thereto and does not involve the carrying of persons or property for compensation or hire, and an aircraft salesman holding a private pilot rating may demonstrate aircraft in flight to a prospective purchaser if he has at least 200 hours of flight time.

(b) Commercial Pilot. A commercial pilot may pilot aircraft for hire.

(c) Airline Transport Pilot. An airline transport pilot may exercise the privileges of a commercial pilot with an instrument rating.

(d) Rating Requirements. A private or commercial pilot shall not pilot an aircraft carrying passengers other than an aircraft of the type and class for which he is rated, but may pilot other aircraft without passengers unless limitations placed on his certificate prohibit him from doing so.

(NOTE: Nothing contained in this section shall be construed as relieving the restrictions with respect to private pilots operating aircraft for hire.)

(e) Flight Instruction Limitations. This section governs flight instruction as follows:

(1) Aircraft. Aircraft shall be equipped with fully-functioning dual controls.

(2) Flight time. A flight instructor shall not give more than 8 hours of dual flight instruction in any one day and not more than 36 hours of dual flight instruction in any 7-day week.

(f) Instrument Flight Limitations. A pilot shall not pilot aircraft under instrument flight rules unless he holds a valid instrument rating issued by the FAA and meets the requirements set forth in (g) below.

(g) Recent Flight Experience. No person may operate an aircraft under Aero 31 unless he meets the requirements set forth in "Recent Flight Experience—Pilot in Command" as set forth in FAR 61.57.

CHAPTER SIX: AERO 32-34

Aero 32 General Air Traffic Rules

(NOTE: The statements contained in the notes are intended as explanations only and shall not be construed as official interpretations of the regulations.)

(a) Scope. The air traffic rules in this part apply to aircraft operated anywhere in Minnesota except:

(1) Aircraft engaged in special flight operations, requiring deviation from these rules, which are conducted in accordance with the terms and conditions of a certificate of waiver issued by the FAA, and in accordance with the provisions of a permit issued pursuant to the laws of this state.

(b) Authority of the pilot. The pilot in command of the aircraft shall be directly responsible for its operation and shall have final authority as to operation of the aircraft. In emergency situations which require immediate decision and action, the pilot may deviate from the rules prescribed herein to the extent required by conditions of safety. When such emergency authority is exercised, the pilot, upon request of the Commissioner, shall file a written report of such deviation.

(c) Letdown procedure. No person may make an instrument letdown on an airport served by a state-owned radio navigation aid except when using a procedure approved by the Administrator of the Federal Aviation Administration.

Aero 33 General Flight Rules

(a) Application. Aircraft shall be operated at all times in compliance with the following general flight rules and also in compliance with either the visual flight rules or the instrument flight rules, whichever are applicable.

(b) Preflight action. Before beginning a flight, the pilot in command of the aircraft shall familiarize himself with all available information appropriate to the intended operation. Preflight action for flights away from the vicinity of an airport, and for all IFR flights, shall include a careful study of available current weather reports and forecasts, taking into consideration fuel requirements, an alternate course of action if the flight cannot be completed as planned, and also any known traffic delays of which he has been advised by air traffic control.

(c) Careless and reckless operation. No person shall operate an aircraft in a careless or reckless manner so as to endanger the life or property of others either in the air or on an airport.

(NOTE: Examples of aircraft operation which may endanger the lives or property of others are as follows:

(1) 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 and reckless flying and who does not own the aircraft which he is flying, unduly endangers the aircraft, the property of another.

(2) The operation of aircraft at an insufficient altitude endangers persons or property on the surface or passengers within the aircraft. Such flight may also constitute a violation of Aero 33 (h).

(3) Lack of vigilance by the pilot to observe other air traffic. In this respect, the pilot must clear his position prior to starting any maneuver, either on the ground or in flight.

(4) Passing other aircraft too closely

(5) An operation conducted above a cloud layer in accordance with VFR minimums which results in the pilot becoming involved in instrument flight, unless the pilot possesses a valid instrument rating, the aircraft is properly equipped for instrument flight, and all IFR requirements are observed.)

(d) Airspace restricted areas. The Commissioner may designate as a danger area, an area within which he has determined that a hazard to aircraft in flight exists. No person shall operate an aircraft within a restricted area or danger area unless permission for such operation has been issued by appropriate authority.

(e) Right of way. An aircraft which is obligated by the following rules to keep out of the way of another shall avoid passing over or under the other, or crossing ahead of it unless passing well clear.

(NOTE: 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 aircraft which has the right of way will normally maintain its course and speed but nothing in these rules relieves the pilot from the responsibility for taking such action that will best avert a collision.)

(1) Distress. An aircraft in distress has the right of way over all other air traffic.

(2) Converging. Aircraft converging shall give way to other aircraft of a different category in the following order: airplanes and rotorcraft shall give way to airships, gliders and balloons; airships shall give way to gliders and balloons; gliders shall give way to balloons. When two or more aircraft of the same category are converging at approximately the same altitude, each aircraft shall give way to the other which is on its right. In any event, mechanically driven aircraft shall give way to aircraft which are seen to be towing or refueling other aircraft.

(NOTE: In effect, an aircraft will give way to another of a different class which is less maneuverable and is unable to take as effective action to avoid collision. For this reason, aircraft towing or refueling other aircraft are given the right of way.)

(3) Approaching head-on. When two aircraft are approaching head-on, or approximately so, each shall alter its course to the right.

(4) 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 the way of the other aircraft by altering its course to the right, and no subsequent change in the relative positions of the aircraft shall absolve the overtaking aircraft from this obligation until it is entirely passed and clear.

(NOTE: Passing an overtaken aircraft on the right is required because the pilot in side-by-side, dual control aircraft is seated on the left, and has a

better view of that side. Further, in narrow traffic lanes, passing on the left of an overtaken aircraft would place the overtaking aircraft in the path of the oncoming traffic.)

(5) Landing. Aircraft, while on final approach to land, or while landing, have the right of way over other aircraft in flight or operating on the surface. 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 to cut in front of another which is on final approach to land, or to overtake that aircraft.

(NOTE: Pilots must recognize that once committed to a landing in certain aircraft, the pilot has little chance to avoid other aircraft which may interfere with that landing; therefore, careful observance of this rule is important to the safety of all concerned.)

(f) Proximity of aircraft. No person shall operate an aircraft in such proximity to other aircraft as to create a collision hazard. No person shall operate an aircraft in formation flight when passengers are carried for hire. No aircraft shall be operated in formation flight except by prearrangement between the pilots in command of such aircraft.

(g) Aerobatic Flight. No person shall engage in aerobatic flight:

(1) Over congested areas of cities, towns, settlements, or over an open-air assembly of persons.

(2) Within any control zone or federal airway.

(3) When the flight visibility is less than 3 miles.

(4) Below an altitude of 1,500 feet above the surface.

(NOTE: Aerobatic maneuvers performed over a congested area or an open-air assembly of persons, or in areas where considerable air traffic exists, create an undue hazard to persons or property. Flight visibility of at least 3 miles is believed to be a prerequisite to aerobatic flight in order that the pilot, after scanning the entire vicinity, may be reasonably assured that no other aircraft is within dangerous proximity prior to performing such maneuvers.)

(h) Minimum safe altitudes. Except when necessary for takeoff or landing, no person shall operate an aircraft below the following altitudes:

(1) At an altitude which will permit, in the event of the failure of a power unit, an emergency landing without undue hazard to persons or property on the surface.

(2) Over congested areas. Over the congested areas of cities, towns, or settlements, or over an open-air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet from the aircraft. Helicopters may be flown at less than the minimum prescribed herein if such operations are conducted without hazard to persons or property on the surface and in accordance with Aero 33 (a); however, the Department of Aeronautics, in the interest of safety, may prescribe specific routes and altitudes for such operations, in which event helicopters shall conform thereto.

(NOTE: This rule recognizes the special flight characteristics of the helicopter which can accomplish an emergency landing within a relatively small space. However, if a helicopter is flown over the congested area of a city,

town or settlement at less than 1,000 feet above the highest obstacle, the pilot is required to fly with due regard to places in which an emergency landing can be made with safety, and, further, to maintain an altitude along the flight path so selected from which such an emergency landing can be effected at any time.)

(3) Over other than congested areas. An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In such event, the aircraft shall not be operated closer than 500 feet to any person, vessel, vehicle, or structure. Helicopters may be flown at less than the minimums prescribed herein if such operations are conducted without hazard to persons or property on the surface and in accordance with Aero 33 (a).

(NOTE: When flight is necessary at an altitude of less than 500 feet above the surface, the pilot must avoid creating any hazard to persons or property on the surface which may result from such flight. In no event should the pilot expose his passengers to unnecessary hazard while engaging in flight at low altitude. The maneuverability of the helicopter permits safe flight below the minimums required in Aero 33 (h), provided good judgment and caution are exercised by the pilot.)

(4) IFR Operations. No pilot shall fly at an altitude less than the minimum IFR altitude established by the FAA for that portion of the route over which the operation is conducted. Such altitude shall be that which the safe conduct of flight permits or requires, considering the character of the terrain being traversed, the meteorological services and navigational facilities available, and other flight conditions. Where the FAA has not established such a minimum, operations shall be conducted at not less than 1,000 feet above the highest obstacle within a horizontal distance of 5 miles from the center of the course intended to be flown.

*(i) Operation on and in the vicinity of an airport. Aircraft shall be operated on and in the vicinity of an airport in accordance with the following rules:

(1) When approaching for landing, all turns shall be made to the left unless the airport displays standard visual markings approved by the Commissioner and which indicate that all turns are to be made to the right, or unless otherwise authorized by air traffic control.

(NOTE: Where right-hand turns and clockwise flow of traffic are desirable in the interest of safety, airport markings visible from the air will inform the transient pilots of the necessity for making turns to the right.)

(2) At airports where there is a control tower in operation, two-way communication shall be maintained with the control tower for traffic control instruction. In case of radio failure, visual instructions may be issued. On airports without control towers but which have an operative FAA Flight Service Station, when within a 5 statute-mile radius, if the aircraft radio equipment so allows, maintain two-way radio communication between the aircraft and the station. If the aircraft radio equipment allows only reception from the station, monitor the station frequency.

(3) Aircraft operating from an airport shall conform to the traffic patterns prescribed for that airport.

(4) The Commissioner may, when necessary in the interest of safety, prescribe traffic patterns for an airport which shall supersede any other traffic patterns previously prescribed.

(j) Air traffic control instructions. No person shall operate an aircraft contrary to air traffic control instructions in areas where air traffic control is exercised.

(k) Water operations. An aircraft operated on the open water shall, insofar as possible, keep clear of all vessels and avoid impeding their navigation. The following rules shall be observed with respect to other aircraft or vessels operated on the water:

(1) Crossing. The aircraft or vessel which has the other on its right shall give way so as to keep well clear.

(2) Approaching head-on. When aircraft, or an aircraft and a vessel, approach head-on, or approximately so, each shall alter its course to the right to keep well clear.

(3) Overtaking. The aircraft or vessel which is being overtaken has the right of way, and the overtaking aircraft shall alter its course to keep well clear.

(4) Special circumstances. When two aircraft, or an aircraft and a vessel, approach so as to involve risk of collision, each shall proceed with careful regard to existing circumstances and conditions including the limitations of the respective craft.

(NOTE: The rules for operating aircraft on the surface of the water conform to marine rules for the operation of vessels. The "special circumstances" rule is provided for situations wherein it may be impracticable or hazardous for a vessel or another aircraft to bear to the right because of depth of waterway, wind conditions, or other circumstances.)

(l) Aircraft lights. Between sunset and sunrise:

(1) All aircraft in flight or operated on the ground or under way on the water shall display position lights.

(2) All aircraft parked or moved within or in dangerous proximity to that portion of any airport used for, or available to, night flight operations, shall be clearly illuminated or lighted, unless the aircraft are parked or moved in an area marked with obstruction lights.

(3) All aircraft at anchor shall display anchor lights, unless in an area within which lights are not required for vessels at anchor.

(NOTE: Aircraft must display appropriate lights on the surface of the water between the hours of sunset and sunrise in order to conform to marine rules.)

Aero 34 Visual Flight Rules and Instrument Flight Rules

In Minnesota, all aircraft shall be operated in compliance with the Visual and Instrument Flight Rules as stated in FAR Part 91.

CHAPTER SEVEN: AERO 35-39

BASIC SAFETY REGULATIONS GOVERNING PARACHUTING AND SKYDIVING

Aero 35 Definitions

(a) Parachute. A device used or intended to be used to retard the fall of a body or object through the air.

(b) Automatic Release. A device whereby the main or reserve parachute is automatically opened at a preset altitude or time span after activation.

(c) Student Parachutist. A person who does not hold or is not qualified to hold a U.S.P.A. (United States Parachute Association) or an F.A.I. (Federation Aeronautique Internationale) license.

(d) Parachutist. A person who holds or is qualified to hold a U.S.P.A. Class A, B, C, or D license or an F.A.I. license.

(e) Equivalent of a License. A parachutist who has fully completed his qualifications for a license or rating and has had entry to that effect made in his personal log by the Club Safety Officer, the Area Safety Officer, instructor, or an authorized employee of the Department.

(f) Equivalent of a Class A License. A parachutist who has completed all of the following requirements.

(1) Made at least 25 free-fall jumps including:
12 stable delays of at least 10 seconds
6 stable delays of at least 20 seconds
3 stable delays of at least 30 seconds

(2) Landed within 50 meters of target center on 5 jumps with delays of at least 30 seconds.

(3) Demonstrated ability to hold heading during free fall, and to make a 360-degree turn to both the right and left.

(4) Demonstrated that he is qualified and able to jumpmaster himself to include independently selecting and properly using a correct exit and opening point.

(5) Demonstrated that he is qualified to properly inspect (check) and adjust his own parachute equipment prior to a jump.

(6) A logbook endorsement by a U.S.P.A. Instructor/Examiner, a U.S.P.A. Instructor, his Club Safety Officer or Assistant Safety Officer, that he has received training for unintentional water landings.

(g) Equivalent of a Class B License. A parachutist who has completed all of the following:

(1) Met all requirements for a Class A license.

(2) Made at least 50 free-fall jumps, including:
15 stable delays of at least 30 seconds
2 stable delays of at least 45 seconds

(3) Able to complete two alternate 360° flat turns to the right and left, a "Figure 8" followed by a back loop in free fall in 10 seconds or less.

(4) Landed within 25 meters of target center on 10 jumps during which he selected the exit and opening points.

(5) Demonstrated his ability to keep track of other canopies and remain a safe distance from them.

(h) Equivalent of a Class C License. A parachutist who has completed all of the following:

(1) Met all the requirements for a Class B license.

(2) Made at least 100 free-fall jumps, including:
30 stable delays of at least 30 seconds
5 stable delays of at least 45 seconds

(3) Able to properly complete an International Series (Figure 8, back loop, Figure 8, back loop) in free fall in less than 18 seconds.

(4) Demonstrated his ability to control his vertical rate of descent and horizontal movement, coordinating the two.

(5) Landed within 15 meters of target center on 25 free-fall jumps during which the parachutist selected the exit point.

(6) Made one intentional night jump.

(7) Made one intentional water jump.

(i) Equivalent of a Class D License. A parachutist who has completed all of the following:

(1) Met all the requirements of a Class C license.

(2) Completed 200 controlled free-fall jumps, including:
100 delays of at least 20 seconds
40 delays of at least 30 seconds
5 delays of at least 45 seconds
5 delays of at least 60 seconds

(3) Able to properly complete the following maneuvers on heading: back loop, front loop, left turn, right turn, right barrel roll and left barrel roll in 18 seconds or less.

(4) Landed within 2 meters of target center on 10 free-fall delays during which the parachutist selected the exit and opening points.

(5) Made one night jump with a delay of at least 20 seconds, with certification of prior night jump training.

(j) Area Safety Officer (A.S.O.) must hold at least a Class C license or equivalent and must be appointed by the U.S.P.A. to supervise safety over a given area.

(k) Club Safety Officer (C.S.O.) must hold at least a Class B license or equivalent and must be approved by the Area Safety Officer.

(l) Public Airport. Any airport licensed by the Department as a public airport.

(m) Controlled Airspace. Airspace of defined dimensions within which air traffic control is exercised by the Federal Aviation Administration.

(n) Congested Area. Area over any city, town or settlement, or an open-air assembly of persons. (NOTE: An area on the ground on which a pilot

would not be able to make a forced landing without undue hazard to persons or property.)

(o) Drop Zone. The area into which a parachutist should reasonably expect to land.

Aero 36 Safety Regulations for Parachuting

(a) A person engaging in parachuting in the State of Minnesota must be a member of a parachute jumping organization approved by the Commissioner of Aeronautics or must be able to produce evidence that he has received instructions from an instructor and that such instructor authorized this person to engage in parachute jumping, or hold or be qualified to hold a U.S.P.A. or F.A.I. license.

(b) Persons desiring to form a parachute jumping organization must submit training standards of student parachutists to the Commissioner for his approval. (NOTE: The training outline as recommended by the U.S.P.A. is recommended.) The minimum parachutist training program should cover the following: parachutes and associated equipment, exit techniques, stability, canopy manipulation, malfunctions, emergency procedures and landings. The instruction given by an instructor should be entered in the student's log and signed by such instructor.

(c) All currently-licensed parachute riggers must have FAA certificates.

(d) No person may make a parachute jump, and no pilot in command of an aircraft may allow a parachute jump to be made from that aircraft over or into an unapproved drop zone in the State of Minnesota without notification to and permission from the Department of Aeronautics.

(1) For parachute jumps onto or within three miles of any public airport, a copy of prior approval of that airport's management must be submitted with the request for approval. If approval is given it will indicate if the drop zone is for the exhibition jump only or may be used at other times without another request for approval. Any drop zone used for exhibition jumps must have prior approval from the Commissioner before such use.

(NOTE: For parachute jumps at any airport with a functioning control tower, controlled airspace or congested area, authorization must also be secured in accordance with FAR Part 105 of their regulations.)

(2) If a new area not previously approved is requested, the request for approval must be received by the Department at least ten working days in advance of the date of the jump to permit inspection of the area for approval or disapproval by the Department.

(e) All jumps must be recorded in the parachutist's personal logbook and also in the organization's master logbook. The personal logbook must be signed after each jump by a witnessing licensed parachutist or witnessing pilot. Master logbooks must show all jumps made, including jumps made by guests and visitors. Personal and organization logbooks shall be available for inspeciton by any federal, state or local enforcement officer.

(f) Medical Examination. Each person engaged in parachuting shall hold at least a valid Third Class Medical Certificate issued in accordance with FAA standards or be on military jump status. A nonresident—that is a

person not residing in Minnesota or a person not jumping in Minnesota—may obtain a written waiver of this requirement from the Department.

(g) Age. Parachutists and student parachutists must have reached the age of legal majority, or be at least 16 years of age with written, notarized parental or legal guardian consent. It shall be the responsibility of the pilot of the aircraft or the Club Safety Officer to inspect personally the notarized consent documents of jumpers between 16 and legal majority.

(h) Equipment. Each parachutist or student parachutist must be equipped as follows: two airworthy parachutes on a single harness consisting of a back pack with a main canopy and a chest pack with at least an approved TSO'd canopy, or tandem assembly. The chest pack (emergency chute) must be repacked according to FAA regulations by an FAA licensed parachute rigger. If a pilot chute is used in the chest pack, it shall be the spiral/vane type. Back pack should be packed in a deployment device. Parachutes must meet minimum federal safety standards as set forth in FAA TSO C-23 or any other applicable federal regulations, or be approved by a rigger properly licensed by the FAA.

(i) Instruments. For delayed falls of more than 20 seconds, an altimeter, stop watch, or an automatic opening device must be used. An altimeter may be used in conjunction with the stop watch. All student parachutists must use a recognized automatic-release device for the main or reserve parachute. This automatic-release device will be used by all jumpers until they are Class A qualified. (NOTE: Examples of automatic-release devices: Sentinel, KAP-3, Military F1-B, and Hi-Tec.)

(j) Clothing. Boots, helmet, goggles, and adequate protective clothing must be worn by student jumpers. Gloves are mandatory if the temperature is below 40° F. at jump altitude.

(k) Mae West type or Coast Guard approved type flotation gear must be worn when parachuting into or within one mile of an open body of water. (An open body of water is defined as one in which a parachutist could possibly drown in the event he actually landed in it.) For planned water jumps, a manned rescue craft for each jumper must be in the target area. At least one lifeguard experienced in life-saving techniques, including resuscitation, must be in each rescue craft. If such water jump area is approved as a water drop zone and the parachutists are qualified, no further notification will be required. Any new area will require approval by the Commissioner. All exhibition water jumps will require approval by the Commissioner.

(l) Pilots and all other occupants must wear emergency parachutes while flying and dropping sport parachutists. Approved safety belts must be worn by parachute jumpers until the aircraft reaches an altitude of at least 1,000 feet above ground.

(m) No wings, cloth extensions, or other forms of control surface that restrict the jumper's ability to activate his main or reserve parachute may be used.

(n) A ground crew shall be on the drop zone during all jumps and instructed to stop jumps by prearranged signal in case of a sudden weather change, other aircraft in the drop zone area, or other emergency conditions. During actual jumps a target may be displayed on the field. Removal of the

target is a signal to stop jumps and land aircraft immediately. Manned ground-to-air communications radio, panels, smoke, and lights at night are approved prearranged signal methods.

(o) All injuries caused by parachuting which require treatment or examination by a physician shall be reported to the Commissioner within 24 hours. In case of a fatality the Commissioner must be notified immediately.

(p) No person may make a parachute jump and no pilot in command of an aircraft may allow any person to make a parachute jump from that aircraft if that person appears to be:

(1) Under the influence of intoxicating liquor.

(2) Using any drug that affects his faculties in any way contrary to safety.

(q) Parachute jumps from within or through clouds are prohibited. No pilot in command of an aircraft may allow any person to make a parachute jump from that aircraft unless cloud conditions meet the following requirements:

(1) Within controlled airspace at a distance less than 1,000 feet under or one mile horizontally from any cloud formation.

(2) Outside the controlled airspace at a distance less than 500 feet under or 2,000 feet horizontally from any cloud formation.

(r) Flight Visibility. No person may make a parachute jump and no pilot in command of an aircraft may allow a parachute jump to be made from that aircraft:

(1) Through any part of the controlled airspace when the flight visibility in that part is less than 5 miles.

(2) Through any part of the airspace outside of the controlled airspace when flight visibility is less than 3 miles.

(s) Minimum Opening Altitudes (above ground). Student parachutists, 2,500 feet; parachutists, 2,200 feet; Class C licensee, or equivalent, 2,000 feet. Intentional water jumps: 2,000 feet.

(t) Maximum ground wind for student parachutists.

Steerable Canopy	Nonsteerable Canopy
First 15 jumps: 12 m.p.h.	First 15 jumps: 8 m.p.h.
Over 15 jumps: 18 m.p.h.	Over 15 jumps: 15 m.p.h.

(u) Before a jump, wind direction and ground wind speed shall be determined by qualified personnel.

(v) Night jumps shall be made only with the written approval of the Commissioner of Aeronautics. Approval will only be considered for those jumpers holding a Class B, C, or D license, or equivalent. Clearance will be given by individual parachutist's name, not a general blanket clearance for any one group. Jumpers at night between sunset and sunrise must wear a bright light visible for at least three miles in all directions from the time the canopy opens until the surface is reached.

(w) Whenever parachute jumps are in progress, the drop areas must be kept clear of spectators. Drop zones or areas used for parachuting shall be

unobstructed, with the following minimum distances from the target to the nearest hazard: student parachutist, 300 meters; U.S.P.A. Class A and B license or equivalent, 200 meters; U.S.P.A. Class C license, or equivalent, 100 meters; U.S.P.A. Class D license, or equivalent, 25 meters. A tree or bush less than 30 feet high is not considered a hazard. Ditches, telephone and power lines, poles, towers, houses, buildings, hangars, and highways are hazards. All vehicles shall be kept clear of the drop zone.

All drop zones shall be approved by the Commissioner of Aeronautics.

The organization must show that it has the approval of the drop zone owner.

(x) If an aircraft to be used for hauling parachutists must be altered in any way, such as door removal, it must have FAA STC approval or approved instructions for door removal for that particular aircraft prior to operation. This does not apply if the aircraft manufacturer has issued a service bulletin or other approved instruction for door removal. If a static-line hookup is installed it must be done by an FAA certificated aircraft mechanic and an appropriate entry must be made in the aircraft log.

(y) Altitude classification and requirements.

(1) Altitude classification:

Low: from 2,000 feet up to and including 14,500 feet MSL, providing field elevation is less than 2,000 feet.

Intermediate: from 14,500 feet MSL up to 20,000 feet above the ground.

High: over 20,000 feet above the ground.

(2) Low altitude jumps may be made without special altitude training or equipment, providing the elapsed time from altitudes 8,000 feet up to 12,000 feet, including the exact time of exit from the aircraft, does not exceed 30 minutes. If elapsed time from or above 8,000 feet is expected to exceed 30 minutes, supplementary oxygen must be in use by each individual up to one second prior to exit from the aircraft. (NOTE: Any time oxygen is used it must be aviation-type breathing oxygen.)

(3) Intermediate altitude jumps may be made by Class B, C, D, or equivalent license holders only. Each parachutist and all occupants must be on supplementary oxygen source at all times from ground up to time of exit.

(4) Hight altitude jumps may be made by Class C and D or equivalent experience license holders only. They must have a current FAA Class 2 medical certificate. Each parachutist and all occupants must be on supplementary oxygen source at all times from ground up to point of exit and be equipped with individual supplementary oxygen source attached and functioning during free fall and be equipped with high altitude protective clothing.

(5) For intermediate and high altitude jumps, each parachutist must have individual approval of the Commissioner of Aeronautics.

(z) Exceptions. In any case where it is determined that the public interest and safety will not be adversely affected, the Commissioner may waive any of the requirements stated in Aero 39, subject to such conditions or limitations as may be necessary.

Aero 37 Commercial Parachute Jumping—Exhibitions

(a) Any parachute organization making exhibition jumps for which a fee is charged or compensation is received must be licensed in accordance with Minnesota Statutes 1957, Section 360.013, Subdivision 11, as a commercial operator. The license shall indicate the jumpers by name authorized under this license. All named jumpers must hold at least a U.S.P.A. Class C license, or equivalent. In the case of a commercial jump, all safety regulations are applicable.

(b) Any individual parachute jumper making exhibition jumps for which a fee is charged or compensation is received must be licensed in accordance with Minnesota Statutes 1957, Section 360.013, Subdivision 11, as a commercial operator. The license shall contain endorsement showing the phases of commercial operations the licensee is authorized to perform. To be licensed as a commercial parachutist, the applicant must hold at least a U.S.P.A. Class C license, or equivalent. In the case of a commercial jump, all safety regulations are applicable.

Aero 38 Parachuting Schools and Clubs

(a) Every person or organization engaging in parachuting shall be licensed in accordance with Minnesota Statutes 1957, Section 360.013, Subdivision 11, as a commercial operator. There is no distinction made in these rules between a parachuting school and a parachuting club. The license shall contain endorsements showing the operations that the licensee is authorized to perform.

(1) The organization shall keep and maintain complete and adequate records of the instruction given to all students, showing the date and time, the type of instruction given, and the name of the instructor. These records shall be available for inspection for at least a year after date of entry.

(2) Curriculum. The organization must show to the satisfaction of Commissioner a curriculum so organized as to ensure that the student completing the course will receive a U.S.P.A. Class A rating, or equivalent. The instruction given by an instructor must be entered in the student's log and signed by such instructor. A copy of the curriculum shall be submitted by the organization with its application. (NOTE: The training outline as recommended by the United States Parachute Association is recommended.)

(3) Rules and Regulations. The organization shall establish and enforce the rules and regulations which shall govern its parachuting operation. These rules and regulations shall be prominently posted at its base of operation and a copy shall be submitted with the application.

(4) Drop Zone. The applicant must show a drop zone located outside controlled airspace. The drop zone to be used must be specifically approved by the Commissioner. The size must meet the minimum requirements for the jumpers using the drop zone in Aero 36 (w). The organization shall show by written documentation that it has a right of access to the land to be used as a drop zone as owner, co-owner, tenant, or by any other right of entry.

(5) Instructors. The organization must show it has instructors who hold U.S.P.A. instructor certificates, and that its instruction is being supervised by said instructors.

(6) All safety regulations heretofore outlined must be complied with.

(7) Insurance. The organization applying for a parachuting training or school endorsement on his license must hold insurance contracts valid and in force for the duration of the license which provide coverage for each accident in the following types and amounts with a reliable insurance company or companies authorized to do business in the State of Minnesota.

$50,000 minimum per passenger seat for passenger liability.

$50,000 per person and $150,000 per accident minimum for aircraft, public liability for bodily injury.

$50,000 per plane for property damage.

(8) Club Safety Officer. The organization must include in its commercial operations application the name of the Club Safety Officer, his qualifications, and an approval of him by the Area Safety Officer. The Club Safety Officer shall be personally responsible for maintaining and enforcing the rules and regulations set forth herein. The Club Safety Officer must be approved by the Commissioner before acting in that capacity. The Club Safety Officer, after receiving approval from the Commissioner, may submit up to two names of persons who are qualified as jumpmasters to act as Assistant Club Safety Officers. Such assistants must be approved by the Commissioner before acting in that capacity. The Assistant Club Safety Officers are charged with the same responsibilities as the Club Safety Officer. A Club Safety Officer or his assistant must be present whenever jumping is taking place by anyone not "A" licensed or having equivalent experience.

(9) Articles of Incorporation. The organization shall attach to its initial application a copy of its articles of incorporation and all amendments thereto or a copy of its partnership agreement, as the case may be, along with a copy of its operating rules and regulations. The organization shall immediately notify the Commissioner of any subsequent changes in such documents.

(10) Members. At the time of the original application, the organization shall list the names and addresses of its members. On or before license renewal and each subsequent year the organization must send to the Commissioner a list of the names and addresses of its members, trainees and students.

(11) If any parachuting school or organization can make an affirmative showing that it is not engaging in and will not engage in commercial operations or in any training for which a fee is charged or compensation is received, within Subd. 11 of Minn. Stat. 360.013, then, and in such event, such a school or organization may be exempted, on an annual basis, by the written permission of the Commissioner, from securing a commercial operations license. If the Commissioner grants such exemption, then no commercial operations license is necessary, but such school or organization, however, must comply with Aero 38 (a)(4)(6)(8)(9)(10). If they do not apply annually for exemption and do not make a showing annually that they are not a commercial operation under said Subd. 11, then a commercial operations license will be required.

Aero 39 Reserved for Future Use

CHAPTER EIGHT: AERO 40-41

Aero 40 Violations

Minnesota Statutes 1973, Section 360.022: "Any person violating any of the provisions of section 360.018, or any of the rules, regulations or orders issued pursuant to the provisions of section 360.015, shall be guilty of a misdemeanor, and each such violation, or in the case of continuing offenses, each day's violation shall constitute a separate offense."

Aero 41 Suspension or Revocation

Minnesota Statutes 1973, Section 360.018, Subdivision 1 (6): "The Commissioner is authorized to suspend or revoke any license or certificate of registration of an aircraft or licensee of commercial operations issued by him, or to refuse to issue any such license or certificate of registration, when he shall reasonably determine that any aircraft is not airworthy or that any licensee of commercial operations is not qualified, has engaged in advertising by means of false or deceptive statements, has been found guilty of gross incompetency or gross negligence, has been found guilty of fraud, dishonesty, forgery, or theft, has wilfully violated the provisions of Sections 360.013 to 360.075, the rules and regulations prescribed pursuant thereto, or any other statute of this state relating to aeronautics, or any act of Congress or any rule or regulation promulgated pursuant thereto, is addicted to the use of narcotics or other habit-forming drug or to the excessive use of intoxicating liquor, has made any false statement in any application for registration of a federal license, certificate, or permit, or has been guilty of other conduct, acts, or practices dangerous to the public safety and the safety of those engaged in aeronautics."

Minnesota Statutes 1973, Section 360.018, Subdivision 10: "The Commissioner is empowered to suspend or revoke any certificate of approval or license issued by him when he shall determine that an airport, restricted landing area, or other air navigation facility is not being maintained or used in accordance with the provisions of Laws 1945, Chapter 303, and the rules and regulations lawfully promulgated pursuant thereto."

CHAPTER NINE: AERO 42

Aero 42 Firing of Unmanned Rockets

(a) Any unmanned rocket, except aerial firework displays and model rockets, are defined as rockets, using not more than four ounces of propellant or using a slow-burning propellant, made of paper, wood or breakable plastic, containing no substantial metal parts and weighing not more than 16 ounces including the propellant.

(b) Operating limitations. No person may operate an unmanned rocket under the following conditions:

(1) In a manner that creates a collision hazard with other aircraft.

(2) In controlled airspace.

(3) Within 5 miles of the boundary of any public airport.

(4) At any altitude where clouds or obscuring phenomena of more than 5/10 coverage prevail.

(5) At any altitude where the horizontal visibility is less than 5 miles.

(6) Into any cloud.

(7) Within 1,500 feet of any person or property that is not associated with the operation.

(8) At night.

(c) Exceptions. In any case where it is determined that the public interest and safety will not be adversely affected, the Commissioner may waive any of the requirements stated in Chapter Nine, Aero 42 (b), subject to such conditions or limitations as may be necessary.

CHAPTER TEN: AERO 43

Aero 43 General Repealer

All rules and regulations of the Department of Aeronautics promulgated prior to the date hereof are hereby repealed.

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IN THE MATTER OF THE PROPOSED AMENDMENTS
TO AERONAUTICS REGULATIONS

STATEMENT OF COMPLIANCE WITH

MANUAL OF RULE MAKING PROCEDURES

I, Special Assistant Attorney General John R. Stoller, do hereby declare that I have examined the proposed rules and all related documents and that, based on them and my personal familiarity with the applicable procedures, the Manual of Rule Making Procedures has been followed.

DATED: January 7, 1976

John R. Stoller

John R. Stoller
Special Assistant Attorney General
Department of Aeronautics

ADMINISTRATION BLDG.
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STATE OF MINNESOTA
DEPARTMENT OF AERONAUTICS

December 16, 1975

Mr. Michael B. Miller
Special Assistant Attorney General
Room 208
Administration Building
St. Paul, Minnesota 55155

Dear Mr. Miller:

Re: Proposed Rules and Regulations of the Department of Aeronautics

Pursuant to Chapter 3 of the Rules and Regulations of the Attorney General, we submit to your attention the following:

1. A transcript of the hearing held on November 20, 1975.

2. Five copies of the regulations as adopted.

3. Three booklets, each containing the following:

   (a) Exhibit A - The regulations as initially proposed.
   (b) Exhibit B - The order for hearing.
   (c) Exhibit C - Certificate of Secretary of State re: mailing list.
   (d) Exhibit D - Affidavit of department employee re: securing of Secretary of State's list.
   (e) Exhibit E - Notice of Hearing.
   (f) Exhibit F - Affidavit of mailing.
   (g) Exhibit G - Statement of Need.
   (h) Exhibits H thru O - Comments concerning proposed regulations.
   (i) Findings of Fact.
   (j) Order adopting rules.

We request that you approve the rules as adopted, and file them with the appropriate departments. For your convenience, we have also enclosed a copy of the 1974 edition of the rules.

If you have any questions or comments, please call me immediately.

Sincerely,

John R. Stoller

John R. Stoller
Special Attorney to the
Department of Aeronautics

Enclosure

JRS:JB

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January 7, 1976

Mr. Mike Miller
Room G19K
State Administration Building
St. Paul, Minnesota 55155

Re: Aeronautics Regulations

Dear Mr. Miller:

I have enclosed for your records a Statement of Compliance with the Attorney General's Regulations concerning rule making.

I trust this will complete the record in this matter.

If you have any questions or comments, please feel free to contact me.

Sincerely,

John R. Stoller

JOHN R. STOLLER
Special Assistant Attorney General
Department of Aeronautics

JRS/sm
Encl.

EXHIBIT A

CHAPTER ONE: AERO 1-5

DEFINITIONS, PROCEDURAL REGULATIONS, CONTESTED CASES, TAXATION, APPLICATIONS FOR FINANCIAL AID

Aero 1 Definitions

(a) Aerobatic Flight. Maneuvers intentionally performed that exceed a bank of 60 degrees relative to the horizon or a nose-up-or-down attitude of 30 degrees relative to the horizon.

(b) Airport. An area of land or water that is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any.

(c) Airport Elevation. The established elevation of the highest point on the usable landing area measured in feet above mean sea level.

(d) Airport Hazard. Any structure or tree or use of land which obstructs the airspace required for, or is otherwise hazardous to, the flight of aircraft in landing or taking off at the airport; and any use of land which is hazardous to persons or property because of its proximity to the airport.

~~(b)~~ (e) Air Traffic. Aircraft operating in the air or on an airport surface, exclusive of loading ramps and parking areas.

~~(c)~~ (f) Air Traffic Control. A service operated by appropriate authority to promote the safe, orderly, and expeditious flow of air traffic.

~~(d)~~ (g) Air Traffic Clearance. Authorization by air traffic control for the purpose of preventing collision between known aircraft, for an aircraft to proceed under specified traffic conditions within ~~a control zone or control area~~ controlled airspace.

~~(f)~~ (h) Anchor Light. A white light installed so as to be visible in all directions for at least three miles at night under clear atmospheric conditions.

~~(e)~~ (i) Autorotation. A rotorcraft flight condition in which the lifting rotor is driven entirely by the action of the air when the rotorcraft is in motion.

~~(f)~~ (j) Balloon. ~~An aircraft, excluding moored balloons, without mechanical means of propulsion, the support of which is derived from lighter than air gas, and is not engine driven.~~ A lighter-than-air aircraft that is not engine driven.

~~(h)~~ (k) Ceiling. The height above the ground or water of the lowest layer of clouds or obscuring phenomena reported as "broken," "overcast," or "obscuration," and not classified as "thin" or "partial."

~~(i)~~ (l) Controlled Airspace. Airspace designated as a continental control area, control area, control zone, terminal control area, or transition area, within which some or all aircraft may be subject to air traffic control ~~designated by the Commissioner or by the FAA~~.

~~(r)~~ (m) Crew Member. A person assigned to perform duty in an aircraft during flight time ~~and any operations on the ground~~.

(n) Dwelling. Any building or portion thereof designed or used as a residence or sleeping place of one or more persons.

~~(g)~~ (o) FAA. The capital letters "FAA" shall mean the Federal Aviation Administration of the United States.

~~(j)~~ (p) Flight Instructor. A ~~private or commercial~~ pilot who possesses a valid flight instructor's rating as issued by the FAA.

~~(k)~~ (q) Flight Visibility. The average forward horizontal distance from the cockpit of an aircraft in flight at which prominent unlighted objects may be seen and identified by day and prominent lighted objects may be seen and identified by night.

~~(l)~~ (r) Glider. A heavier-than-air aircraft that is supported in flight by the dynamic reaction of the air against its lifting surfaces and whose free flight does not depend principally on an engine.

(s) Height. The purpose of determining the height limits set forth in these regulations, the datum shall be mean sea level elevation.

~~(m)~~ (t) Helicopter. A rotorcraft, that for its horizontal motion, depends principally on its engine-driven rotors.

~~(aa)~~ (u) IFR. The symbol used to designate instrument flight rules.

(v) Intermediate System Airport. Airports having a paved and lighted runway less than 5,000 feet in length, capable of accommodating all single-engine and most twin-engine aircraft as well as some light jet aircraft.

(w) Key System Airport. Airports having a paved and lighted runway over 5,000 feet in length, capable of accommodating heavy, multi-engine aircraft as well as most of the corporate jet fleet.

(x) Landing Strip System Airport. Airports with turf runways capable of accommodating single-engine and light twin-engine aircraft.

~~(p)~~ (y) Letter of Authority. "Letter of Authority" shall be included in the term "license" as used herein.

~~(v)~~ (z) Night. The time between the end of evening civil twilight and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time.

(aa) Nonprecision Instrument Runway. A runway having an existing or planned straight-in instrument approach procedure utilizing air navigation facilities planned or indicated on an approved planning document.

~~(q)~~ (bb) Passenger. An occupant of the aircraft in flight other than a crew member.

(cc) Person. An individual, firm, partnership, corporation, company, association, joint stock association, or body politic, and includes a trustee, receiver, assignee, administrator, executor, guardian, or other representative.

~~(s)~~ (dd) Pilot in Command. The pilot responsible for the operation and safety of an aircraft during flight time ~~and any operations on the ground~~.

(ee) Planned. As used in these regulations, refers only to those proposed future airport developments that are so indicated on a planning document having the approval of the Commissioner.

(ff) Precisions Instrument Runway. A runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), a Microwave Landing System (MLS), or a Precision Approach Radar (PAR). Also, a runway for which a precision instrument approach system is planned and is so indicated on an approved planning document.

~~(n)~~ (gg) Rotorcraft. A heavier-than-air aircraft that principally for its support in flight on the lift generated by one or more rotors. ~~These rotors are not engine driven but are made to rotate by action of the air when the rotorcraft is moving.~~

(hh) Runway. Any existing or planned paved surface or turf covered area of the airport which is specifically designated and used or planned to be used for the landing and taking off of aircraft.

~~(t)~~ (ii) Second in Command. A pilot who is designated to be second in command of an aircraft during flight time ~~and any operations on the ground~~.

(jj) Slope. An incline from the horizontal expressed in an airthmetic ratio of horizontal magnitude to vertical magnitude.

(kk) Structure. An object constructed or installed by man, including, but without limitations, buildings, towers, smokestacks, earth formations, and overhead transmission lines.

~~(u)~~ (ll) Sunset and Sunrise. The mean solar times of sunset and sunrise as published in the American Air Almanac, converted to local ~~standard~~ time ~~for the locality concerned~~.

~~(w)~~ (mm) To Pilot. To be in command of an aircraft during takeoff, in flight, landing, or on the ground.

~~(x)~~ (nn) Traffic Pattern. ~~The flow of aircraft operating on and in the vicinity of an airport during specified wind conditions as established by appropriate authority.~~ The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport.

(oo) Tree. Any object of natural growth.

(pp) Utility Runway. A runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.

~~(y)~~ (qq) VFR. The symbol used to designate visual flight rules.

(rr) Visual Runway. A runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an approved planning document.

(ss) Water Surfaces. For the purpose of these regulations, water surfaces shall have the same meaning as land.

~~(z)--VFR-Conditions.--Weather-conditions-equal-to-or-above the-minimum-prescribed-for-flights-under-VFR.~~

~~(bb)--IFR-Conditions.--Weather-conditions-below-the-minimum prescribed-for-flights-under-VFR.~~

~~(cc)--Key,-Intermediate-and-Landing-Strip-Airports.--Key system-airports-are-those-being-used-by-or-intended-to-be-used-by large-multi-engine-and-jet-aircraft.--Intermediate-system-airports shall-be-those-used-or-intended-for-use-by-single-engine-or-light-to medium-multi-engine-aircraft.--Landing-strip-airports-are-those-small airports-which-may-be-unattended,-sod-or-hard-surfaced-and-which-are used-or-intended-for-use-by-single--or-multi-engine-light-aircraft.**

~~AIRPORT-LICENSES,-OBSTRUCTIONS-TO-AIR-NAVIGATION,-ZONING,-UNLICENSED-LANDING-AREAS, RESTRICTED-LANDING-AREAS,-AND-OBSTRUCTION-MARKING-AND-LIGHTING~~

AIRPORT LICENSING, AIRPORT ZONING, OBSTRUCTIONS TO AIR NAVIGATION

Aero 6 ~~Airport-Licenses~~ General Provisions for Airport Licensing

(a) Airport. The term "airport" as used herein shall include seaplane bases, heliports, and all other designated landing areas.

~~(a)~~ (b) Licensing Procedure. Every ~~public~~ airport ~~and restricted landing area~~, before operating as such, shall be approved and licensed by the Commissioner. (Airports owned or operated by public corporations formed pursuant to the Metropolitan Airports Commission Act need not be licensed.)

(1) Application. Application for license shall be made on forms supplied by the Commissioner and accompanied by the appropriate fee.

~~Public Airport.....$5.00~~
~~Municipal Landing Strip.....$5.00~~
~~Privately-owned Commercial Airport.....$5.00~~
~~Public Seaplane Base.....$5.00~~
~~Public Heliport.....$5.00~~
~~Privately-owned Commercial Heliport.....$5.00~~
~~Privately-owned Commercial Seaplane Base.....$5.00~~
~~Restricted Landing Area.....No Fee~~

Type of License	Fee	Renewal
Public Airport (privately or publicly-owned)	$5.00	Annually
Privately-owned Commercial Airport	$5.00	Annually
Personal-use Airport	None	Every 3 years

(2) Inspection. The applicant for any license shall offer full cooperation in respect to any inspection which may be made of the airport premises upon proper demand at reasonable hours by any authorized representative of the Commissioner, prior to or subsequent to the issuance of a license.

(3) Ownership. The applicant shall show that he has right of access to and control of the land, or right of access to the water area to be licensed, as owner, co-owner, tenant, or by any other right of entry.

(4) Agency Approvals. No airport shall be licensed until the applicant has submitted evidence of the following agency approvals:

(aa) Federal Aviation Administration Airspace Approval.

(bb) Approval of the Metropolitan Airports Commission for any airport located within the metropolitan area, or within 35 miles of the city hall of either Minneapolis or St. Paul.

(cc) Permits and approvals that may be required of local governmental agencies.

(c) Restricted Operation. A letter of authority granting temporary or restricted operation may be issued pending full compliance with the provisions of these rules and regulations and shall have an expiration date.

(d) License Display. The license issued under this section shall be posted in a prominent place at the airport.

(e) Nontransferability. Licenses shall not be transferable.

(f) Alteration or Change of Operational Status. The licensee shall immediately notify the Commissioner of any proposed construction, alteration, or change in the operational status of the airport. The licensee is also responsible for properly notifying the Federal Aviation Administration of such alterations or changes.

(g) Danger Area or Closed Airport. Any part of the landing strip or runway which has become temporarily unsafe, or for any reason is not available for use, shall be marked by suitable warning flags and/or flares which shall clearly show the boundaries of the danger area. Upon the closing, abandonment or cessation of any airport, the licensee shall immediately notify the Commissioner, return the current license, and mark the landing area in a manner that clearly indicates that the airport is closed to air traffic. All markings indicating a usable runway must be obliterated. ~~A cross~~ An "X" must be placed at a central location, the minimum size to be 3' x 30', and of contrasting colors to the surrounding surface where the "X" ~~cross~~ is placed. In the event that the licensee fails to do the above, then and in such case, and without excusing the licensee, the Commissioner may go upon the premises and remove the markings that indicate a usable runway and may also mark the airport as indicated above.

(h) Exceptions. In any case where it is determined that the public interest and safety will not be adversely affected, the Commissioner may waive any of the requirements stated in Aero 6 - 16, subject to such conditions or limitations as may be necessary. Conversely, where it is determined that the public interest and safety will be adversely affected, the Commissioner may deny the issuance of a license, despite compliance with regulations herein.

Aero 7 (Delete in its entirety.) Reserved for Future Use

Aero 8 Licensing of a Public Airport

(a) ~~Definition~~ Public Airport. A public airport is any airport, whether privately or publicly owned, the public use of which for aeronautical purposes is invited, permitted, or tolerated by the owner or person havint right of access and control. ~~A public airport will be granted a license when it is shown that it has met the following minimum requirements:~~ The requirements of this section do not apply to the licensing of public seaplane bases or public heliports. Specific requirements for the licensing of a public seaplane base are found in Aero 12. Specific requirements for the licensing of a public heliport are found in Aero 14.

(b) Requirements. A public airport shall be granted a license when it has shown that it has met the general provisions of Aero 6 and the following minimum requirements:

(1) Size. Minimum usable lengths and widths of turf landing strips constructed before July 1, 1958 have been permitted, if they were 2,000 feet long and 150 feet wide. All such minimum turf landing strips prior to July 1, 1976, must be improved so that they have at least one landing strip with a minimum usable length of 2,500 feet and width of 150 feet. No turf landing strip licenses will be renewed after July 1, 1976, unless they have reached the minimum usable length of 2,500 feet and a width of 150 feet by that date. New turf landing strips constructed after July 1, 1958, shall have minimum usable lengths and widths of 2,500 feet long and 150 feet wide.

(2) Surface. The effective landing surface shall be smooth and free from hazards or obstructions. The longitudinal gradient on any part of the landing area shall not exceed 2%. The transverse gradient shall not exceed 3%.

~~(3) Obstructions. The obstruction clearance requirements for licensing are set forth in Aero 9 of these regulations. The minimum obstruction clearance of the glide slope shall be 15 feet for highways at the near edge, 17 feet for interstate highways and 23 feet for railroads at the top of rail. The approach zone to a runway or landing strip shall be clear above a 20:1 glide slope commencing 200 feet beyond the end of a hard surfaced runway (100 feet beyond a sod runway) and extending outward for 10,000 feet. The minimum width is 250 feet at the end near the runway widening to 2,250 feet.~~

(3) Obstructions. The minimum obstruction clearance for licensing requires that no structure or mobil object, other than those necessary and incidental to airport operation, and no tree shall penetrate the imaginary airspace surfaces discribed in Aero 9, paragraphs (e) (1), (e) (4), and (e) (5). The standards of this section shall also apply to traverse ways only after their heights have been increased as described in Aero 9 (b).

(4) Markers. The landing strips or areas, ~~unless clearly defined by distinct contrasting surroundings of permanent nature,~~ shall be outlined with effective markers which shall be constructed and installed in a manner approved by the Commissioner.

(5) Buildings. Buildings and structures on a public airport shall not be closer than 250' to the centerline of the runway. For height limitations see Aero 9 (e).

~~(6) Danger Area or Closed Airport. Any part of the landing strip or runway which has become temporarily unsafe, or for any reason is not available for use, shall be marked by suitable warning flags and/or flares which shall clearly show the boundaries of the danger area. Upon the closing, abandonment or cessation of any airport, the licensee shall immediately notify the Commissioner, return the current license, and mark the landing area in a manner that clearly indicates that the airport is closed to air traffic. All markings indicating a usable runway must be obliterated. A cross must be placed at a central location, the minimum size to be 3' x 30' of contrasting colors to the surrounding surface where the cross is placed. In the event that the licensee fails to do the above, then and in such case, and without excusing the licensee, the Commissioner may go upon the premises and remove the markings that indicate a usable runway and may also mark the airport as indicated above.~~

~~(7)~~ (6) Wind Indicator. All public airports shall be equipped with a wind cone, 3' x 12', blaze orange in color, or other indicator as approved by the Commissioner, which must be operable and clearly visible from the pattern altitude when within one mile of the airport during daylight hours.

~~(8)~~ (7) Fencing. Such adequate fencing or barriers shall be constructed as will prevent all persons not engaged in flight activities from having access to a position of danger with relation to aircraft in the vicinity of building area and on the flight line.

~~(9)~~ (8) Lighting. If the airport is lighted for night operations and is advertised as lighted for night operations, the lights shall be kept on from dusk to dawn. The wind indicator, in this case, must also be lighted as approved by the Commissioner. Any object in the approach zone of a lighted visual runway ~~or landing strip~~ that extends above a ~~40:1 glide~~ slope of 30:1, ~~starting 200 feet from the end of a runway and extending 1,000 feet outward,~~ shall be marked and lighted in accordance with the standards for obstruction marking and lighting where requested by the Commissioner in the interest of safety.

~~(10)~~ (9) Tiedowns. Facilities must be furnished for at least three more aircraft than regularly use the facilities. The tiedowns are to be marked so as to be readily located and shall not protrude above the surface.

~~(11)--Sanitary-public-toilets.~~

(10) Toilets. A sanitary public toilet facility shall be provided at all public airports. An enclosed portable chemical toilet, properly maintained and serviced, shall be acceptable.

~~(12)~~ (11) Aviation Fuel. All aviation fuel dispensed on any airport shall be filtered to be free of solid matter in excess of 5 microns particle size and to have a free water content less than 30 parts per million parts of fuel.

(10) Fire Extinguishers. At least one fire extinguisher shall be available in the vicinity of the fuel pump or on the flight line if fuel is dispensed. It must be a minimum of 10 pounds of carbon dioxide or equivalent.

~~(13)--An-area-map-shall-be-posted-at-the-airport-office-in-a-prominent place,-showing-danger-or-restricted-areas.--Safety-and-traffic-rules promulgated-by-the-airport-manager-shall-be-posted-adjacent-to-the-map.~~

(13) ~~(14)~~ Telephone. When feasible, a telephone shall be made available for public use. ~~on-a-24-hour-basis.~~ Telephone numbers for the appropriate Flight Service Station, for emergency assistance, and for aircraft servicing shall be prominently posted.

(14) Bulletin Board. A weather-protected bulletin board shall be prominently located on the airport. Posted thereon shall be the airport license, safety and traffic rules, and an area map showing danger or restricted areas.

~~(15)--An-office-or-other-suitable-facilities-shall-be-available.~~

~~(b)--Privately-owned-Commercial-Airport.--A-privately-owned-commercial-airport-is-an-airport-used-for-commercial-purposes.--The-persons-who-may-use-the airport-are-determined-by-the-owner-of-the-airport.--Licensing-requirements-are-the same-as-in-Aero-8-(a)-1---10.~~

Aero 8 A Licensing of a Privately-owned Commercial Airport.

~~(b)~~ (a) Privately-owned Commercial Airport. A privately-owned commercial airport is a restricted airport used for commercial purposes. The persons who may use the airport are determined by the owner of the airport. ~~Licensing requirements are the same as Aero 8 (a) 1 - 10.~~

(b) A privately-owned commercial airport will be granted a license when it has shown that it has met the general provisions of Aero 6 and the minimum requirements of Aero 8 (b) 1-6, 11, and 12.

(c) A privately-owned commercial airport may be used to satisfy the public airport requirements of Aero 17.

(d) A privately-owned commercial airport shall not be displayed on any chart for public distribution.

Aero 9 Criteria for Determining Obstructions to Air Navigation, ~~Minimum Zoning Standards, and Marking and Lighting of Structures~~

Delete (a) (b)

(a) Obstruction. An existing object, including a mobil object, is, and a future object would be, an obstruction to air navigation if it is of greater height than any of the heights or surfaces established herein.

(b) Traverse Ways. Except for traverse ways whose activities are coordinated with adjacent controlled airports, the standards of this section apply only after the heights of traverse ways are increased by:

(1) 17 feet for interstate highways.
(2) 15 feet for all other public roadways.
(3) 10 feet or the height of the highest mobil object that would normally traverse the road, whichever is greater, for private roads.
(4) 23 feet for railroads.
(5) For waterways and all other traverse ways not previously mentioned, an amount equal to the height of the highest mobil object that would normally traverse it.

(c) Notification. Any sponsor who proposes any construction or alteration that would exceed a height of 200 feet above ground level at the site, or any construction or alteration of greater height than an imaginary surface extending outward and upward at a slope of 100:1 from the nearest point of the nearest runway of a public airport shall notify the Commissioner at least 30-days in advance.

(d) General Obstructions. The following ofjects will be considered general obstructions to air navigation:

(1) ~~(d)~~ Objects extending more than 500 feet above ~~the highest point of land within a one mile radius from said object will be considered obstructions.~~ ground level at the site of the object.

~~(c) Object in instrument approach areas, more than 100 feet above the ground or 100 feet above the elevation of the approach end of the runway, whichever gives the higher elevation, within three statute miles of the runway end, and increasing in height above ground in the proportion of 25 feet for each additional statute mile of distanee outward from the runway end but not exceeding 250 feet within ten statute miles of the runway end will be considered obstructions.~~

(2) ~~(f)~~ Objects more than 200 feet above the ground or more than 200 feet above the established airport elevation, whichever gives the higher elevation, within three ~~statute~~ nautical miles of the nearest runway of an airport, and increasing in height in the proportion of 100 feet for each additional ~~statute~~ nautical mile of distance from the airport but not exceeding a maximum of 500-feet above ground ~~will be considered obstructions.~~

(3) ~~(g)~~ Objects which would increase the minimum obstruction clearance altitude of a federal airway or approved off-airway route. ~~will be considered obstructions.~~

(4) ~~(h)~~ Objects whose elevation will increase a precision or non precision instrument approach ~~minimum flight altitude will be considered obstructions~~ flight altitude minimum or flight visibility minimum.

~~(i) Objects within a civil airway or air traffic control area, more than 200 feet above the ground or 1451 feet below the established minimum flight altitude, whichever gives the higher elevation, will be considered obstructions. The minimum flight altitudes are normally established from the highest point within five statute miles of the centerline of the civil airway or air traffic control area for the section of airway or control area effected.~~

(e) Obstructions to Public Airports. An object will be considered an obstruction to a public airport (excluding heliports) if it is of greater height than any of the following airport imaginary surfaces.

(1) Primary Surface. An imaginary surface longitudinally centered on a runway and: ~~extending~~

(aa) Extending 200 feet beyond each end of a runway with a specially-prepared hard surface or planned hard surface; or

(bb) Coinciding with ~~100 feet beyond~~ each end of other runways. The width of the primary surface is:

~~(ee)~~ (cc) 250 feet for all ~~other~~ visual utility runways; or

(dd) 500 feet for ~~all other~~ nonprecision instrument runways and for ~~all~~ visual runways ~~having specially prepared hard surface or planned hard surface.~~ other than utility; or

~~(ee)~~ (ee) 1,000 feet for precision instrument runways and for nonprecision instrument runways having visibility minimums as low as three-fourths of a statute mile.

The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline.

(2) Horizontal Surface. An imaginary horizontal surface with its height 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of specified radii from the center of each end of the primary surface of each runway and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is:

(aa) 10,000 feet for precision instrument runways and for nonprecision instrument runways having visibility minimums as low as three-fourths of a statute mile; or

(bb) 6,000 feet for all other runways.

When a 6,000-foot arc is encompassed by tangents connecting two adjacent 10,000-foot arcs, the 6,000-foot arc shall be disregarded in the construction of the perimeter of the horizontal surface.

(3) Conical Surface. An imaginary conical surface extending upward and outward from the periphery of the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet as measured radially outward from the periphery of the horizontal surface.

(4) Approach Surface. An imaginary surface longtudinally centered on the extended centerline at each end of a runway. The inner edge of the approach surface is at the same width and elevation as, and coincides with, the end of the primary surface. The approach surface inclines upward and outward at a slope of:

(aa) ~~(bb)~~ 20:1 for a horizontal distance of 10,000 feet for ~~other~~ visual utility runways; or

(bb) ~~(aa)~~ 40:1 for a horizontal distance of 10,000 feet for ~~all~~ nonprecision instrument runways and for ~~all~~ visual runways ~~having specially-prepared-hard-surfaces-or-planned-hard-surfaces;-or~~ other than utility.

The approach surface expands uniformly to a width of:

(cc) ~~(ff)~~ 2,250 feet for ~~other~~ visual utility runways;or

(dd) ~~(ee)~~ 2,500 feet for ~~all~~ visual runways ~~having-specially-prepared hard-surfaces-or-planned-hard-surfaces;-or~~ other than utility;or

(ee) ~~(dd)~~ 3,500 feet for ~~all-other~~ nonprecision instrument runways ~~or~~ having visibility minimums greater than three-fourths statute mile; or

(ff) ~~(ee)~~ 4,000 feet for nonprecision instrument runways having visibility minimums as low as three-fourths of a statute mile.

(5) Precision Instrument Approach Surface. An imaginary surface longitudinally centered on the extended centerline at each end of a precision instrument runway. The inner edge of the precision instrument approach surface is at the same width and elevation as, and coincides with, the end of the primary surface. The precision instrument approach surface inclines upward and outward for a horizontal distance of 10,000 feet at a slope of 50:1, expandin uniformly to a width of 4,000 feet, then continues upward and outward for an additional horizontal distance of 40,000 feet at a slope of 40:1, expanding uniformly to an ultimate width of 16,000 feet.

(6) Transitional Surface. An imaginary surface extending upward and outward at right angles to the runway centerline and the runway centerline extended at a slope of 7:1 from the sides of the primary surfaces and from the sides of the approach surfaces until they intersect the horizontal surface or the conical surface.

Transitional surface for those portions of the instrument approach surface which project through and beyond the limits of the conical surface extend a distance of 5,000 feet measured horizontally from the edge of the instrument approach surface and at right angles to the extended instrument runway centerline.

(f) Obstructions to Public Heliports. An object will be considered an obstruction to a public heliport if it is of greater height than any of the following airport imaginary surfaces.

~~(1)--Objects-which-project-above-the-heliport-primary-surface,-heliport approach-surface-or-heliport-transitional-surface-are-obstructions-to-air-navigation.~~

~~(2)~~ (1) Heliport Primary Surface. The primary surface of a heliport coincides in size and shape with the designated takeoff and landing area. This surface is a horizontal plane at the elevation of the established heliport elevation.

~~(3)~~ (2) Heliport Approach Surface. The heliport approach surface begins at each end of the primary surface, with the same width as the primary surface and extends outward and upward at a slope of 8:1 for a horizontal distance of 4,000 feet where its width is 500 feet.

~~(4)~~ (3) Heliport Transitional Surface. The heliport transitional surfaces extend outward and upward from the lateral boundaries of the primary surface and from the approach surfaces at a slope of 2:1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces. ~~As-to-a-privately-owned-commercial-heliport,-this-subparagraph 3-need-not-be-applied-in-all-directions-where-there-are-obstruction-free-approaches-from-two-directions-with-at-least-a-2:1-clear-angle-in-a-third direction~~.

~~(k)~~ (g) The standards for marking and lighting structures are contained in FAA Advisory Circular 70/7460-~~1B~~ 1 D Obstruction Marking and Lighting, and any subsequent changes, except that spherical markers ~~(Chapter-3,-8-B-(1))~~ shall be a diameter of not less than 30 inches, and except that the colors of the markers shall be aviation orange, white, and chrome yellow, and be installed in that sequence.

Aero 10 ~~Land-Use~~ Airport Zoning Standards

~~(a)--Aero-10-sets-forth-the-minimum-land-use-safety-and-noise-sensitivity zoning-standards-and-the-criteria-for-determining-land-uses-incompatible-with airports.~~

(a) Airport Zoning. Contained herein are minimum standards for the zoning of public airports as to airspace, land use safety, and noise sensitivity.

~~(b)--Definitions.--The-terms-used-herein-shall-be-defined-in-the-same-manner as-they-are-defined-in-Aero-9.~~

(b) Airport Zoning Powers. Any person or governmental body having airport zoning powers under M. S. 360.061 to .076 may adopt airport zoning ordinances, orders, or regulations more restrictive than the minimum zoning standards set forth herein or in any other applicable law.

(c) Airspace Zones. The following airspace zones are established with relation to an airport and each runway.

(1) Primary Zone. All that land which lies directly under an imaginary primary surface as defined in Aero 9 (e) (1).

(2) Horizontal Zone. All that land which lies directly under an imaginary horizontal surface as defined in Aero 9 (e) (2).

(3) Conical Zone. All that land which lies directly under an imaginary conical surface as defined in Aero 9 (e) (3).

(4) Approach Zone. All that land which lies directly under an imaginary approach surface as defined in Aero 9 (e) (4).

(5) Precision Instrument Approach Zone. All that land which lies directly under an imaginary precision instrument approach surface as defined in Aero 9 (e) (5).

(6) Transitional Zone. All that land which lies directly under an imaginary transitional surface as defined in Aero 9 (e) (6).

(d) Height Restrictions. Except as necessary and incidental to airport operation, no structure or tree shall be constructed, altered, or allowed to grow in any airport zone so as to project above any of the imaginary airspace surfaces as established in paragraph (c).

~~(c)~~ (e) Land Use Safety Zones. The following land-use safety zones are established with relation to an airport and each runway.

(1) Safety Zone A. In the approach zones of a runway, Safety Zone A extends outward from the end of the primary surface a distance equal to two-thirds the runway length or planned runway length.

(2) Safety Zone B. In the approach zones of a runway, Safety Zone B extends outward from Safety Zone A a distance equal to one-third the runway length or the planned runway length.

(3) Safety Zone C. All that land which is enclosed within the perimeter of the horizontal zone defined in paragraph (c) (2) and which is not included in Zone A or Zone B.

(f) ~~(d) Restrictions in Land Use Safety Zones~~. Use Restrictions. In order to restrict those uses which may be hazardous to the operational safety of aircraft operating to and from an airport, and furthermore to limit population and building density in the runwayapproach areas, thereby creating sufficient open space so as to protect life and property in case of accident, the following use restrictions are applied to the land use safety zones.

(1) General. No use shall be made of any land in any of the safety zones which creates or causes interference with the operation of radio or electronic facilities on the airport or with radio or electronic communications between the airport and aircraft, makes it difficult for pilots to distinguish between airport lights and other lights, results in glare in the eyes of pilots using the airport, impair visibility in the vicinity of the airport, or Otherwise endangers the landing, taking off, or manuvering of aircraft.

(2) Zone A. Zone A shall contain no powerlines, building, or temporary structures and shall be restricted to those uses which will not create, attract, or bring together an assembly of persons thereon. Permitted uses may include, but are not limited to, such uses as agriculture, (seasonal crops), horticulture, raising of livestock, animal husbandry, wildlife habitat, light outdoor recreation (nonspectator), cemeteries and auto parking.

(3) Zone B. Zone B shall be ~~used for the following purposes only:~~ restricted in use as follows:

~~(aa) Agricultural and residential purposes, provided there shall not be more than one single family dwelling per three acre tract.~~

~~(bb) Commercial or industrial use which meets the following minimum standards.~~ (delete in its entirety)

(aa) Each use shall be on a site whose area shall not be less than three acres.

(bb) Each use shall not create, attract, or bring together a site population that would exceed 15 times that of the site acreage.

(cc) Each site shall have no more than one building plot upon which any number of structures may be erected.

(dd) A building plot shall be a single, uniform and noncontrived area, whose shape is uncomplicated and whose area shall not exceed the following minimum ratios with respect to the total site area:

Site Area at Least (Acres)	But Less Than (Acres)	Ratio of Site Area to Bldg. Plot Area	Building Plot Area (sq. ft.)	Max. Site Population (15 persons/A)
3		12:1	10,900	45
	4	12:1		
4		10:1	17,400	60
	6	10:1		
6		8:1	32,600	90
	10	8:1		
10		6:1	72,500	150
	20	6:1		
20	and up	4:1	218,000	300

~~(ee)~~

~~(~~ee) The following uses are specifically prohibited in Zone B: churches, hospitals, schools, theaters, stadiums, hotels and motels, trailer courts, camp grounds, and other places of public or semipublic assembly.

(4) Zone C. Zone C is subject only to the general restrictions contained in paragraph ~~(d)~~ (f) (1).

~~(e)~~

(g) Noise Sensitivity Zones. Land-use noise sensitivity zones shall be established when requested by the Commissioner or by the governmental unit having airport zoning powers. The governmental unit having zoning powers, when required by the Commissioner, shall secure a study as to the boundaries of the area to be zoned for this purpose and the uses permitted therein.

Aero 12 ~~Public Seaplane Base~~ Licensing of a Public Seaplane Base

(a) Public Seaplane Base. A public seaplane base shall mean any seaplane base, whether privately- or publicly-owned, ~~at which any kind of commercial aviation service is available to the public or~~ the public use of which for aeronautical purposes is invited, permitted, or tolerated by the operator or the person having right of access. A public seaplane base will be granted a license when it is shown that it has met the general provisions of Aero 6 and the minimum requirements stated herein.

(b) Operation. In case the body of water to be used for landing and taking off is under the jurisdiction of any federal, state, municipal port or other authority, the operations on such body of water shall be in conformity with the marine traffic rules and regulations of such authority, if such rules and regulations do not interfere with the safe operation of aircraft.

(c) Separate Licenses. The license issued to a seaplane base shall apply to the land area from which operations are conducted and to the water area designated for its operations. Where two or more bases located on the same body of water are under different ownership or control, each base shall obtain a separate seaplane base license.

(d) Use. The use of such body of water for aeronautical purposes shall in no way impair or deny the right of the public to the use of public waters.

(e) ~~Ownership.--All property used for the land operation of the seaplane base, including docks and ramps, shall be owned by the applicant, or the applicant shall show a statement in writing by the owner that he has the right to use and has control of the property for the purpose and time intended.~~ Construction or Alteration of Shoreline. The applicant shall show that any construction or alteration of shoreline on the land area of the base is in conformity with the regulations of the Minnesota Department of Natural Resources, Division of Waters, Soils and Minerals, and with municipal building and other pertinent regulations, if applicable.

(f) Size. The body of water shall have a minimum effective length of at least one mile and shall be of sufficient width and depth to permit the safe operation of aircraft on the surface. All approaches to the landing area shall be sufficiently clear of obstructions to permit a 20:1 glide angle to the nearest point of the usuable landing area, provided that if any structure on the land is located within 300 feet of the centerline of the approach path, such glide angle shall be computed so as to provide a clearance of at least 100 feet above such structure. ~~All approaches to and takeoffs from the water area shall be make in such a manner as to clear all structures on the land by at least 100 feet, and wherever the area of the body of water will permit, such landings and takeoffs shall be made at a distance of not less than 300 feet, both laterally and vertically, from any boat or person on the surface of the water, or as near to 300 feet as the area of the water will permit.~~

(g) Boundary Markers. The outline of that part of the area available for landing and takeoff and for taxiing, when required in the interest of safety, shall be marked in a manner approved by the Commissioner, or as may be required by the marine traffic rules and regulations of the authority having jurisdiction.

(h) Hazards. All hazards in the approach or landing area, including underwater obstructions, shall be marked in a manner approved by the Commissioner. If the base is engaged in night operations, such hazards shall be clearly marked with lights during the period of sunset to sunrise.

(i) Wind Indicator. Each public seaplane base shall be equipped with a wind cone 3'x12', blaze orange in color, or other wind indicator approved by the Commissioner, which must be operable and clearly visible from the pattern altitude when within one mile of the seaplane base during daylight hours. If night operations are conducted at the base, the wind cone must be lighted.

(j) Minimum Public Seaplane Base Facilities. Every public seaplane base~~, in addition to the facilities required at a public airport,~~ shall have as a minimum the following facilities:

(1) Dock. A dock or float, suitable for the loading and unloading of seaplanes, shall be so located as to afford the maximum degree of safety in taxiing approach.

(2) Ramp. A ramp, or equivalent substitute, for beaching of aircraft, shall be provided. Tie-down or storage area shall be so arranged that the ramp is normally clear for the beaching of incoming aircraft.

(3) Toilets. A sanitary public toilet facility shall be provided at all public seaplane bases.

(4) Telephone. When feasible, a telephone shall be made available for public use. Telephone numbers for the appropriate Flight Service Station, for emergency assistance, and for aircraft servicing shall be prominently posted.

(5) Bulletin Board. A weather-protected bulletin board shall be prominently located on the seaplane base. Posted thereon shall be the seaplane base license, safety and traffic rules, and an area map showing danger or restricted areas.

(6) Beaching or Mooring. Beaching or mooring facilities must be provided for at least three more seaplanes than regularly use the facilities.

(k) Minimum Public Seaplane Base Safety Equipment. Every public seaplane base shall have as a minimum the following safety equipment:

(1) Life Preserver. At least one life preserver of the ring or throw type with sufficient line attached shall be available on the ramp or dock or in the emergency boat.

(2) Boat. A boat and operable motor shall be immediately available for use at all times that flights are in progress.

~~(3) When required in the interest of safety, at least one mooring anchor and buoy shall be so located that it can be approached from any direction, and it shall be located at least 150 feet from any shoreline obstructions or other objects or structures.~~

~~(4)~~ (3) Lines. An adequate supply of lines for heaving, ~~or~~ towing, securing ~~or~~ and rescue operation shall be kept available.

~~(5)~~ (4) Fuel Filters. All aviation fuel dispensed at a public seaplane base shall be filtered to be free of solid matter in excess of 5 microns particle size and to have a free water content less than 30 parts per million parts of fuel. ~~At least one fire extinguisher shall be available in the vicinity of the fuel pump or at the ramp or dock. It must be a minimum of ten pounds of carbon dioxide, or equivalent.~~

(5) Fire Extinguishers. At least one fire extinguisher shall be available in the vicinity of the fuel pump or at the ramp or dock. It must be a minimum of ten pounds of carbon dioxide, or equivalent.

~~(1) Privately owned Commercial Seaplane Base. A privately owned commercial seaplane base is a seaplane base used for commercial purposes. The persons who may use the seaplane base land area are to be determined by the owner of the base. Licensing requirements are the same as in Aero 12 b c d e f g h i.~~

Aero 12A Licensing of a Privately-owned Commercial Seaplane Base

(a) Privately-owned Commercial Seaplane Base. A privately-owned commercial seaplane base is a restricted seaplane base used for commercial purposes. The persons who may use the seaplane base land area are to be determined by the owner of the base.

(b) Requirements. A privately-owned commercial seaplane base will be granted a license when it is shown that it has met the requirements of Aero 12, (b)-(i), and (k) (1), (3), (4), (5).

(c) Use. A privately-owned commercial seaplane base may be used to satisfy the public seaplane base requirements of Aero 17.

(d) Restrictions. A privately-owned commercial seaplane base shall not be displayed on any chart for public distribution, unless it is displayed as a private or restricted seaplane base.

~~Aero-13--Unlicensed-Landing-Areas~~

(It is proposed that Aero 13 as it presently stands be deleted in its entirety.)

Aero ~~12A~~ 13 Seaplane Operations on Certain Public Waters

(a) Scope. Aero ~~12A~~ 13 covers seaplane operations on all public waters within the following counties: ~~Hennepin, Ramsey, Carver, Dakota, Washington, Scott and Anoka.~~ Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington.

(b) Lakes Upon Which Seaplane Operations Are Permitted. Seaplane operations are prohibited on all public waters in the seven county area described above except for the following bodies of water upon which seaplane operations are permitted.

Anoka County

- Centerville Lake
- Clear Lake
- Coon Lake
- George Watch Lake
- Ham Lake
- Howard Lake
- Lake George
- Linwood Lake
- Martin Lake
- Mississippi River
- Mud Lake
- Otter Lake
- Peltier Lake
- Pickerel Lake
- Reshenav Lake
- Rice Lake
- Round Lake

Carver County

- Goose Lake
- Hazeltine Lake
- Lake Minnewashta
- Lake Pattersen
- Lake Riley
- Lake Waconia
- Lundsten Lake
- Mud Lake
- Oak Lake
- Parley Lake
- Pierson Lake
- Tiger Lake

Dakota County

- Alimagnet
- Byllesby Reservoir
- Crystal Lake

Dakota County (cont.)

- Lake Marion
- Mississippi River
- Orchard Lake
- St. Croix River

Hennepin County

- Bryant Lake
- Diamond Lake
- Eagle Lake
- Fish Lake
- French Lake
- Lake Independence
- Lake Minnetonka, except the following areas:
  - Black Lake, Emerald Lake
  - French Lake, Forest Lake
  - Gray's Bay, Libb's Lake
  - Peavy Lake, ~~St. Alban's Ba~~
  - Seton Lake, Tanager Lake
- Lake Sarah
- Medicine Lake
- Mississippi River
- Schmidt Lake
- Whaletail Lake

Ramsey County

- Bald Eagle Lake
- Lake Owasso
- Long Lake
- Mississippi River
- Turtle Lake
- White Bear Lake

Scott County

Cedar Lake
Geis Lake
Pleasant Lake
Prior Lake East
Prior Lake West
Spring Lake

Washington County

~~Big Lake~~ Big Carnelian Lake
Big Marine Lake
Forest Lake
Lake Elmo
Mississippi River
~~Onora~~ Oneka Lake
St. Croix River

(c) Further Restrictions. ~~Restrictions as to White Bear Lake, Lake Minnetonka and Lake Owasso.~~ This restriction contained in (c) does not apply to the holder of a Personal-use Seaplane Base License issued under Aero 16, while operating to and from his licensed base. All seaplane operations are prohibited from 11 a.m. ~~(CDST)~~ to 6 p.m. (CDST) on Saturdays, Sundays and national legal holidays between June 1 and September 15 on the following public waters:

(1) Lake Minnetonka and all bays and lakes therein.
(2) White Bear Lake and all bays and lakes therein.
(3) Lake Owasso and all bays and lakes therein.

(d) Emergency Use. Nothing in Aero ~~12A~~ 13 shall be construed to prohibit the landing or taking off of a seaplane in case of a bona fide emergency.

(e) Compliance with Marine Traffic Rules and Regulations. All seaplanes must comply with marine traffic rules and regulations if such rules and regulations do not interfere with the safe operation of aircraft.

(f) Ski-Equipped Aircraft Exclusion. These regulations contained in Aero 13, including the prohibited lakes, do not apply to aircraft equipped with either wheels or skis while being operated from frozen lakes.

Aero 14 ~~Public Heliport and Privately owned Commercial Heliport~~
Licensing of a Public Heliport

(a) Public Heliport. A Public heliport shall mean any heliport, whether privately or publicly owned, ~~on which any kind of commercial aviation service is available to the public or~~ the public use of which for aeronautical purposes is invited, permitted, or tolerated by the owner or person having right of access. A public heliport will be granted a license when it is shown that it has met the general provisions of Aero 6 and the minimum requirements stated herein.

~~(1) Takeoff and Landing Area. This area is utilized for accelerating to the safe climb out speed from either a hovering start or from a standing start in the case of a rolling takeoff. It must be of sufficient length so that a landing and stop straight ahead can be effected within the area, in the event of power failure, within the distance required to accelerate to the safe climb out speed. Adequate width must be provided to ensure a margin of safety consistent with the size of the helicopters to be operated, cross wind condition, and similar contingencies. In case of rooftop sites, the requirements set forth in this subparagraph (1) may be waived by the Commissioner of Aeronautics.~~

(b) Landing and Takeoff Area. That specific area in which the helicopter actually lands and takes off, including the touchdown area. The minimum landing and takeoff area length shall be 2.0 times the overall length of the largest helicopter expected to use the heliport, and the width of the area shall be 1.5 times the overall length of the largest helicopter expected to use the heliport.

(c) Touchdown Area. The dimensions of the touchdown area shall be equal to the rotor diameter of the largest helicopter expected to use the heliport.

(d) Peripheral Area. A peripheral area surrounding the landing and takeoff area, with a minimum width of one-quarter the overall length of the largest helicopter expected to use the heliport, but not less than 10 feet, is recommended as an obstruction-free safety zone.

~~(2) Access Paths. A public heliport must have at least two access paths. At least two of the access paths must be located that the lines bisecting them shall form an angle of not less than 90 degrees at their intersection. An access path is an obstruction free flight path in a plane leading outward and upward from a point 50 feet beyond the end of the takeoff and landing area. An access path rises vertically one foot for each eight feet horizontally. If the access path is curved, its centerline must have a turning radius of not less than 600 feet. In width, the access path flares out from the width of the landing area to a maximum width of 1,000 feet. The angle of the flare is 10 degrees on each side.~~

(e) Obstructions. Criteria for determining obstructions to public heliports are set forth in Aero 9 (f).

(f) Approach-Departure Paths. Approach-departure paths are selected to provide the most advantageous lines of flight to and from the landing and takeoff area. These paths begin at the edge of the landing and takeoff area and should be aligned as directly as possible into the prevailing winds.

(1) Approach-departure paths coincide in size with the imaginary surfaces described in Aero 9 (f), except that an approach-departure path may be curved.

(aa) If the approach-departure path is curved, its centerline must have a turning radius of not less than 700 feet.

(bb) If the approach-departure path is curved, the curved portion of the path must begin at a distance not less than 300 feet from the landing and takeoff area.

(2) A public heliport must have at least two approach-departure paths which must be separated by an arc of at least 90 degrees. These two paths must be obstruction-free.

(3) Emergency landing areas must be available along the approach-departure paths.

~~(3) Approach Area. The area beneath the access paths must permit emergency landings in case of engine failure without serious damage to helicopter occupants or persons or property below.~~

~~(4)~~ (g) Fuel Filters. All aviation fuel dispensed on any public heliport shall be filtered to be free of solid matter in excess of 5 microns particle size and to have a free water content of less than 30 parts per million parts of fuel. ~~At least one fire extinguisher shall be available whether or not fuel is dispensed on the site. It must be a minimum of ten pounds of carbon dioxide or equivalent.~~

(h) Fire Extinguishers. At least one fire extinguisher shall be available. It must be a minimum of ten pounds of carbon dioxide or its equivalent.

~~(5)~~ (i) Wind Indicator. All public heliports shall be equipped with a wind cone which must be clearly visible from pattern altitude.

~~(6) To afford adequate protection to the public, a fence or barricade or other adequate safety precautions shall be required around the takeoff and landing area to keep the public from the operational area or the landing pad shall be elevated sufficiently to provide a 6'6" vertical clearance from the low edge of the tail rotor arc to the ground.~~

(j) Safety Barriers. Access to the landing and takeoff area and the peripheral area, if any, shall be fenced or protected to keep unauthorized persons out of these areas. If a fence is used, it shall not penetrate the heliport imaginary surfaces described in Aero 9 (f).

(k) Rooftop Egress. Rooftop heliports should have two exits, one at each side of the landing and takeoff area, which should be provided in accordance with local building codes.

(l) Applicability. The regulations contained in Aero 14, (d), (e), and (f) are predicated upon VFR operations by helicopters certificated in the normal category. The Commissioner may set additional requirements for heliports which will conduct IFR operations and/or operations by transport category helicopters.

~~(b) Privately-owned Commercial Heliport. A privately-owned commercial heliport is a heliport used for commercial purposes. The persons who may use the heliport are to be determined by the owner of the heliport. The privately-owned commercial heliport must meet the standards of Aero 14.~~

Aero 14A Licensing of a Privately-owned Commercial Heliport

(a) Privately-owned Commercial Heliport. A privately-owned commercial heliport is a restricted heliport used for commercial purposes. The persons who may use the heliport are to be determined by the owner of the heliport.

(b) Requirements. A privately-owned commercial heliport will be granted a license when it is shown that it has met the requirements of Aero 14.

(c) Use. A privately-owned commercial heliport may be used to satisfy the public airport requirements of Aero 17.

(d) Restrictions. A privately-owned commercial heliport shall not be displayed on any chart for public distribution, unless it is displayed as a private or restricted heliport.

Aero 16 Licensing of Personal-use Landing Areas

(a) Personal-use Landing Area. A personal-use landing area shall mean any area on land or water on which aircraft are, or will be, ~~stored or~~ regularly based or regularly operated from. ~~and/or from which aircraft can be operated. If an applicant meets the qualifications set forth in Aero 16 for a personal-use landing area, he may be granted one of the following three licenses for that site, whichever is applicable.~~ A license of one of the three types listed below will be granted when it is shown that it has met the general provisions of Aero 6 and the minimum requirements stated herein.

(1) Personal-use Airport ~~Landing Field~~ License
(2) Personal-use ~~Heliport~~ Seaplane Base License
(3) Personal-use ~~Seaplane Base~~ Heliport License

~~(b) Requirements for a License for a Personal-use Landing Area.~~

(b) ~~(1)~~ Hazards. A personal-use landing area shall not impose undue hazards upon adjoining property or its occupants or endanger the users or use of existing surface communication or transportation.

(c) ~~(2)~~ Operation. A personal-use landing area shall not interfere with the safe operation of any public airport or with the safety of any ~~state or~~ federal airway.

~~(3) Use. A personal-use landing area shall not be held out as available for public use or caused or be authorized to be displayed on any chart for public distribution.~~

~~(4) Noncommercial Uses. A personal-use landing area shall not be used for any commercial purposes except for aerial spraying and dusting, which activities may be conducted from a personal-use landing area.~~

(d) Restrictions. A personal-use landing area shall not be operated except in accordance with the restrictions set forth below.

(1) A personal-use landing area shall not be held out as available for public use, nor shall the public use of a personal-use landing area be invited, permitted , or tolerated.

(2) A personal-use landing area shall not be used for any commercial purposes except for aerial spraying and dusting.

(3) A personal-use landing area shall not be displayed on any chart for public distribution.

(e) Size. A personal-use landing area shall be of sufficient length and width and the approaches shall be sufficiently clear of obstructions to permit safe operations by the aircraft intended to use it.

~~(b)--(5)-Each-personal-use-landing-area-must-have-a-license of-one-of-the-types-described-above.~~

~~(c)-Personal-use-Landing-Area-License.--If-the-applicant desires-a-license-for-a-personal-use-landing-area-on-land,-then he-shall,-if-the-site-meets-the-specifications-set-forth-herein, be-granted-a-personal-use-landing-field-license-for-that-site.~~

~~(d)-Personal-use-Heliport-License.--A-personal-use-landing area-for-the-exclusive-use-of-helicopters-shall-be-licensed-as-a personal-use-heliport.--In-addition,-a-personal-use-heliport-must meet-the-standards-set-forth-in-Aero-14-(a)-(1)-and-(3)-and-shall have-at-least-one-access-path-meeting-the-standards-of-Aero-14-(a) (2).--The-site-must-also-meet-the-above-requirements-set-forth-in Aero-16.~~

(f) ~~(e)~~ Personal-use Seaplane Base License. A personal-use seaplane base license shall apply to the land area from which operations are conducted and to the water area designated for its operation. ~~When-two-or-more-bases-located-on-the-same-body-of water-are-under-different-ownership-or-control,-each-base-shall obtain-a-separate-personal-use-seaplane-base-license.--The-site must-also-meet-the-above-requirements-as-set-forth-in-Aero-16.~~

(1) When two or more bases located on the same body of water are under different ownership or control, each base shall obtain a separate personal-use seaplane base license.

(2) A personal-use seaplane base license will not be granted for those lakes upon which seaplane operations are prohibited by Aero 13.

(g) Personal-use Heliport License. In addition to the above requirements, a personal-use heliport must meet the requirements listed below.

(1) Aero 14 (b), except that the landing and takeoff area minimum length and width shall be 1.5 times the overall length of the helicopter expected to use the heliport.

(2) Aero 14 (c),(d).

(3) Aero 14 (f), except that a personal-use heliport must have as a minimum one approach-departure path meeting those requirements.

(4) Safety Barrier. Access to the landing and takeoff area and the peripheral area, if any, shall be fenced or protected to keep unauthorized persons out of these areas.

CHAPTER THREE: AERO 17-27

Aero 17 General Commercial Operations Regulations

(a) Commercial Operations. "Commercial Operations" means any operations of an aircraft for compensation or hire; or any services performed incidental to the operation of any aircraft for which a fee is charged or compensation received, including but not limited to, the servicing, maintaining and repairing of aircraft, the rental or charter of aircraft, the operation of flight or ground schools, the operation of aircraft for the application or distribution of chemicals or other substances, aerial photography and surveys, air shows or expositions, parabhute jumping, and the operation of aircraft for fishing. "Commercial Operations" also means brokering or selling of any of the aforesaid services but does not include any operations of aircraft as common carriers certificated by the federal government or the services incidental thereto ~~(Minnesota Statutes 1957, Section 360.013, Subd. 11)~~.

(b) License. Every person who does in fact provide or who advertises, represents or holds himself out as giving or offering to provide such service, ~~as described in Minnesota Statutes 1957, Section 360.013, Subdivision 11,~~ must be licensed by the Commissioner of Aeronautics. The license shall contain endorsements showing the type or types of commercial operations the licensee is authorized to perform. Such person must be licensed by the Commissioner before he advertises, represents or holds himself out as giving or offering to provide such service or services.

(c) Application. Application for license shall be made on forms supplied by the Commissioner of Aeronautics.

(d) Fee. The fee shall be $10.00 annually and must accompany the application.

(e) Duration and Renewal. The license issued under this section shall be effective for one year from the date of issuance thereof and shall be renewed annually. Application for renewal shall be made 30 days before the expiration of the current license.

(f) Nontransferability. The license shall not be transferable to other persons.

(g) Display. The license issued under this section shall be posted in a prominent place in the office of the licensee.

(h) Notice of Change. The licensee shall immediately notify the Department of Aeronautics in writing of any change in the status of such commercial operation relating to ownership, activities, aircraft or key personnel.

~~(i) Report of Accidents. Each licensee shall be responsible for reporting all accidents which occur while aircraft are being operated in connection with his operation and involve any of the following conditions.~~

~~(1) An accident which results in serious injury or death to an occupant of an aircraft, or to any person by direct contact with the aircraft.~~

~~(2) An accident which occurs as the result of a violation of the Rules and Regulations of the Commissioner or of the Federal Aviation Administration.~~

~~(3) An accident which results in substantial damage to an aircraft. "Substantial damage" as used herein is defined as follows:~~

~~(aa) Except as provided in subparagraph (bb) of this paragraph, substantial damage means damage or structural failure which adversely affects the~~

~~structural strength, performance or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component.~~

~~(bb) Engine failure, damage limited to an engine, bent fairings or cowling, dented skin, small punctured holes in the skin or fabric, ground damage to rotor or propeller blades. Damage to landing gear wheels, tires, flaps, engine accessories, brakes, or wing tips are not considered "substantial damage" for the purpose of this part.~~

~~Reports of all accidents shall be made on NTSB Form 6120.1, and in addition to such report, the operator shall give immediate notice to the Commissioner by telephone or telegraph of any accident involving death to any person.~~

~~(j)~~ (i) Place of Business

(1) Each applicant for a commercial operations license must have a place of business.

(2) In addition, if the commercial activity includes the operation of aircraft, then ~~such applicant's base of operation~~ the applicant's aircraft must be based on a public airport or public seaplane base licensed by the Commissioner as provided by law, or an airport owned by the Metropolitan Airports Commission, except when such commercial operation is limited to:

(aa) Spraying and dusting~~;~~ ~~or~~.

~~(bb) The exclusive lease of the aircraft involved for a period of more than 30 days by a person who is not a commercial operator to a person who is not a commercial operator.~~

If the applicant does not own the airport or seaplane base he must submit evidence from the owner or municipality that he meets the airport owner's minimum standards for such commercial operation and is authorized to from such airport.

~~(k)~~ (j) Aircraft. Each aircraft used by a licensee for commercial operation ~~shall possess a currently valid certificate of airworthiness as issued by the Federal Aviation Administration, shall be continually maintained in an airworthy condition, and~~ shall be currently registered with the Department of Aeronautics, or be taxed as flight property by the Department of Revenue, as required by the laws of this state. Such flight property tax payments must be current.

~~(l) Airmen. Each airman engaged in commercial operations or employed by the commercial operator shall hold a currently valid airman's certificate, as issued by the Federal Aviation Administration, together with the appropriate ratings for the type of equipment to be operated or the kind of activity taking place.~~

~~(m)~~ (k) Records. Each licensed commercial operator shall maintain, at the base of operations, basic records which must be kept up to date as follows:

(1) Each flight made in equipment owned by a licensee shall be recorded. The register shall show the pilot's name, identification of the aircraft, and the date, time and duration of the flight. ~~and the pilot's name.~~

(2) An accurate list of airman personnel employed by the commercial operator, together with the airman certificate type, number of ratings, address, and ~~where necessary,~~ date of last physical examination.

(3) A list of aircraft used in the commercial operation and the current Minnesota Department of Aeronautics registration decal number and annual maintenance inspection date of each aircraft.

~~(n) Hangar. Persons engaged in commercial operations involving the operation of aircraft shall have hangar facilities, either owned or available for the type of operation involved, and such aircraft shall be properly hangared, or in lieu thereof, other facilities or methods of avoiding the hazards which arise from the exposure of unhangared aircraft to weather shall be available.~~

~~(o)~~ (l) Compliance with the Law. A person engaged in commercial operations shall comply with all laws of the State of Minnesota and the Rules and Regulations promulgated by any state department or agency.

~~(p)~~ (m) Cooperation. The applicant for a commercial operations license shall offer full cooperation in respect to any inspection which may be made of his operation upon proper demand at reasonable hours by the Commissioner or any authorized representative of the Commissioner prior to or subsequent to the issuance of a license.

~~(q)~~ (n) Shared-expense flights. Part 61.118 of the Federal Aviation Regulations shall apply as rules of this department in determining whether or not a shared-expense flight is a commercial operation.

~~(r) Leasing~~

~~(1) Any person who owns an aircraft and leases or rents that aircraft to a person not holding a commercial operations license under Chapter 3 is required to obtain a commercial operations license under these rules.~~

~~(2) However, no commercial operations license shall be required of a person who owns his own aircraft and leases or rents his aircraft to a party who holds a commercial operations license.~~

(o) Aircraft Maintenance. An applicant whose commercial activity includes the operation of an aircraft and who is also not licensed to perform aircraft servicing, maintaining, and repairing must have a contract or agreement with a commercial operator licensed to perform these services for all aircraft used in the commercial activity.

(p) Endorsements. To receive an endorsement to a commercial operations license, the applicant must meet and comply with the requirements of Aero 17, unless specifically excepted therefrom, and the appropriate Aero Regulation for the type or types of commercial operations applied for.

(q) Telephone. Each applicant for a commercial operations license must have a telephone located at his place of business.

(r) Insurance. The applicant for a commercial operations license must hold insurance contracts valid and in force for the duration of the license which provide coverage for each accident in the types and amounts as specified in the appropriate Aero Regulation for the type or types of commercial operations applied for.

The applicant shall ensure that the insurance company or companies which hold the insurance contracts is authorized by the Insurance Commissioner to do business in the State of Minnesota.

Any contract of insurance to be approved by the Commissioner shall carry an endorsement stating that such contract cannot be canceled by the insurer until after five days' notice in writing of such cancellation has been given the Commissioner by the insurer. In any case where an insurance contract is canceled by the insured, notice of such cancellation shall immediately thereafter be given to the Commissioner by the insurer.

Aero 18 Flight School

(a) Flight School. Any person engaged in giving or offering to give dual flight time, instruction or flight time leading to a pilot's certificate or rating, or engaged in selling or giving solo flight time to persons holding less than a private pilot's certificate, for hire or reward, or advertising, representing, or holding himself out as giving or offering to give such instruction, shall be considered to be operating a flight school, except:

(1) Company Instruction. A company engaged in flight operation giving instruction to its own employees in furtherance of their duties in conjunction with such operation activity.

(2) Public Schools. Any public school, the Unitersity of Minnesota, or any institution of higher learning accredited by the North Central Accoation of Colleges and Secondary Schools and approved by it for carrying on collegiate work.

(3) Aeronautics Instructor. An instructor who does not advertise, call his facilities an "air school," employ or use other instructors, and does not use his own aircraft.

(b) Minimum requirements. To be eligible for a flight school endorsement, an applicant shall show compliance with the following minimum requirements:

(1) Records and Office. The school operator shall keep and maintain complete and adquate records in addition to the students' logbooks of the flight instruction given to all regularly enrolled students, showing the ~~time and~~ date, the amount of dual or solo instruction, the maneuvers given, the aircraft used and the name of the instructor of each dual flight. These records shall be available for inspection at the flight school office and shall be retained

for at least one year from the date of the last entry. The flight school operator shall show that he has an office of adequate size and containing the necessary facilities and equipment, ~~including a telephone,~~ for the operation of the school. ~~It shall have a bulletin board on which shall be displayed all required notices, traffic patterns, flight rules, and other data necessary for the operation of a school.~~

~~(2) If the applicant is not licensed to perform aircraft servicing, maintaining and repairing, he must show a contract or agreement with a commercial operator licened to perform this service for all aircraft used in the flight school. A copy must be attached to the application.~~

~~(c)~~ (2) Curriculum. The applicant must show to the satisfaction of the Commissioner ~~a curriculum~~ a course outline or FAA Flight Training Handbook so organized for each course offered as to ensure that the student ~~sucessfully~~ completing the course of ground and flight instruction will meet all the requirements of FAR Part 61. ~~will qualify for the certificate or rating sought.~~ In the case of an FAA approved school, the FAA ~~curriculum~~ course outline will be acceptable. The flight instruction given to each regularly enrolled student shall be in accordance with such ~~curriculum~~ course outline, a copy of which shall be made available to each student.

~~(d)~~ (3) Rules and Regulations. The flight school operator shall establish and enforce the rules and regulations which shall govern his flight school operation, including rules relating to the traffic pattern, practice areas, taxi rules, flight rules, and other safety procedures. These rules and reulations and a diagram thereof shall be prominently posted on a bulletin board at the ~~airport~~ flight school along with the required notices and other data necessary for the operation of the school. ~~and a~~ A copy of the rules and regulations shall be submitted with the application.

~~(e)--Requirements-for-First-Solo.--The-school-operator-shall-not authorize-or-permit-any-student-to-solo-an-aircraft-until-he-hasshad-a minimum-of-8-hours-of-dual-instruction.~~

~~(f)~~ (4) Insurance. ~~The-applicant-for-a-flight-school-endorsement on-a-commercial-operations-license-must-hold-insurance-contracts-valid-and inforce-for-the-duration-of-the-license-which-provide~~ the minimum insurance coverage for each accidnet shall be the following types and amounts: ~~with-a reliable-insurance-company,-or-companies,-authorized-by-the-Insurance-Commissioner to-do-business-in-the-State-of-Minnesota.~~

(1) ~~$50,000~~ $75,000 per passenger seat for passenger liability. ~~to include-the-solo-student.~~

(2) ~~$50,000~~ $100,000 per person and ~~$150,000~~ $300,000 per ~~accident~~ occurence for bodily injury excluding passengers. ~~minimum-for-aircraft,-public liability-for-bodily-injury.~~

(3) ~~$50,000~~ $100,000 per plane for property damage.

~~Any-contract-of-insurance-to-be-approved-by-the-Commissioner-shall-carry an-endorsement-stating-that-such-contract-cannot-be-canceled-by-the-insurer until-after-five-days'-notice-in-writing-of-such-cancellation-has-been-given the-Commissioner-by-the-insurer.--In-any-case-where-an-insurance-contract-is canceled-by-the-insured,-notice-of-such-cancellation-shall-immediately-there-after-be-given-the-Commissioner-by-the-insurer.~~

~~(g)~~ (5) Faithful Performance Bond Governing Students. The applicant must file with the Commissioner of Aeronautics ~~of-the-State-of-Minnesota~~ a continuous corporate surety bond to the State of Minnesota in the sum of $5,000 conditioned for the faithful performance of all contracts and agreements with students made by such person, firm, association or corporation, or their salesmen. The aggregate liability for the surety for all breaches of the conditions of the bond in no event shall exceed the principal sum of $5,000. The surety of any such bond may cancel such bond upon giving sixty days' notice in writing to the Commissioner

of Aeronautics ~~of the State of Minnesota~~ and thereafter the surety shall be relieved of liability for any breach of conditions occuring after the effective date of cancellation, provided, however, that whenever a bond under this section ceases to be in effect for any reason, the flight school license shall be revoked. The bond form shall be provided by the Commissioner ~~of Aeronautics.~~ A copy of the executed bond certificate will be attached to the application. ~~This section (g) shall become effective on November 1, 1969.~~

Aero 19 Ground School and Aeronautical Correspondence School

It is proposed that Aero 19 (b) (5) be amended as follows:

(5) The applicant must have at least one ~~qualified~~ FAA certificated flight or ground instructor ~~(authorized instructor)~~ to certify training reports.

It is further proposed that Aero 19 (c) be deleted as follows:

~~(c) The applicant must meet the requirements of Aero 17.~~

Aero 20 ~~Approved Schools~~ Reserved for Future Use.

It is proposed that the provisions of Aero 20 as they presently exist be deleted in their entirety and reserved for future use.

Aero 21 Aircraft Charter

(a) Endorsement for Charter Operations. Any person engaged in flying persons or property from place to place, or offering to provide such service for hire or reward, who does not hold a certificate of public convenience and necessity from the Civil Aeronautics Board or its successor, or who does not hold a license as a commuter air carrier under Aero 26, shall be deemed to be engaged in a charter operation and shall have an endorsement on his commercial operations license to certify to his authority to engage in charter operations.

(b) ATCO Certificate. The applicant shall be the holder of an air taxi/commercial operator certificate with operating specifications as issued by the Federal Aviation Administration, and ~~if required,~~ a valid letter of registration from the Civil Aeronautics Board. A copy of this certificate with operating specifications shall be attached to the application.

~~(c) The applicant must show that he has an office of adequate size on an airport which contains the necessary facilities and equipment, including a telephone.~~

~~(d) If the applicant is not licensed to perform aircraft servicing, maintaining and repairing, he must show a contract or agreement with a commercial operator licensed to perform this service for all aircraft used in his charter operation. A copy of the contract or agreement must be attached to the application.~~

~~(e)~~ (c) Insurance. ~~The applicant for a charter endorsement on a commercial operations license must hold insurance contracts valid and in force for the duration of the license which provide~~ The minimum insurance coverage for each accident shall be ~~in~~ the following types and amounts, ~~with a reliable insurance company or companies, authorized by the Insurance Commissioner to do business in the State of Minnesota:~~ as specified by the Civil Aeronautics Board.

~~(1) $50,000 minimum per passenger seat for passenger liability.~~

~~(2) $50,000 per person and $150,000 per accident minimum for aircraft, public liability for bodily injury.~~

~~(3) $50,000 minimum per plane for property damage.~~

~~Any contract of insurance to be approved by the Commissioner shall carry an endorsement stating that such contract cannot be canceled by the insurer until after five days' notice in writing of such cancellation has been given the Commissioner by the insurer. In any case where an insurance contract is canceled by the insured, notice of such cancellation shall immediately thereafter be given the Commissioner by the insurer.~~

~~(f) The applicant must meet the requirements of Aero 17.~~

Aero 22 Aircraft Rental ~~or Leasing~~

(a) Endorsement for Aircraft Rental ~~or Leasing~~. Any person renting ~~or leasing~~ aircraft or offering to rent ~~or lease~~ aircraft for hire or reward shall be deemed to be in the business of renting ~~or leasing~~ aircraft and must have an endorsement on his commercial operations license certifying his authority to engage in such activity.

(b) Records. The holder of a commercial operations license with an aircraft rental ~~or lease~~ endorsement shall keep and maintain a complete and adequate set of records to show the following.

(1) The name of the pilot renting ~~or leasing~~ an aircraft.

(2) The identification of the aircraft rented ~~or leased~~.

(3) The date, time, and duration of the flight for which the aircraft was rented ~~or leased~~.

These records shall be available for inspection at the licensee's office and shall be retained for at least one year from the date of the last entry.

(c) Qualifications of ~~Lessee~~ Renter. The commercial operator shall determine before initially renting ~~or leasing~~ any aircraft that the ~~lessee~~ renter there of is ~~properly~~ licensed and rated to fly the type of aircraft to be rented ~~or leased, and~~., When in the interest of safety, the operator ~~shall determine if~~ determines that a flight check is necessary or desirable, such flight check shall be given the ~~lessee~~ renter by a person holding an effective commercial ~~pilot's rating or~~ pilot, flight instructor, or airline transport pilot certificate. ~~Such commercial pilot or instructor must be present when an aircraft is checked out, or someone capable of determinging that the aircraft is properly serviced.~~ The commercial operator shall assure that a designated

Person capable of determining that an aircraft is properly serviced is present when an aircraft is checked out.

~~(d) Maintenance. If the applicant is not licensed to perform aircraft servicing, maintaining and repairing, he must show a contract or agreement with a commercial operator licensed to perform this service for all aircraft used in the rental operation. A copy of the contract or agreement must be attached to the application.~~

~~(e)~~ (d) Insurance. ~~The applicant for a rental or lease endorsement on his commercial operations license must hold insurance contracts valid and in force for the duration of the license which provide~~ The minimum insurance coverage for each accident shall be ~~in~~ of the following types and amounts:

(1) ~~$50,000~~ $75,000 per passenger seat for passenger liability up to 75% of the total passenger seats.

(2) ~~$50,000~~ $100,000 per person and ~~$150,000~~ $300,000 per ~~accident~~ occurrence for bodily injury excluding passengers. ~~minimum for aircraft, public liability for bodily injury.~~

(3) ~~$50,000~~ $100,000 ~~minimum~~ per plane for property damage.

~~Any contract of insurance to be approved by the Commissioner shall carry an endorsement stating that such contract cannot be canceled by the insurer until after five days' notice in writing of such cancellation has been given the Commissioner by the insurer. In any case where an insurance contract is canceled by the insured, notice of such cancellation shall immediately thereafter be given the Commissioner by the insurer.~~

~~(f) The applicant must meet the requirements in Aero 17.~~

Aero 23 Air Ambulance Service

(a) Endorsement for Air Ambulance Service. Any person engaged in flying ambulance stretcher cases from place to place, or offering to provide such service for hire or reqard, shall be deemed to be engaged in air ambulance service and shall have an endorsement on his commercial operations license certifying his authority to engage in air ambulance service.

(b) Aircraft. Each aircraft to be used as an ambulance for the purpose of transporting stretcher cases shall have ample area to accommodate a regulation ambulance cot or aircraft ambulance stretcher in a horizontal position, and shall be so designed as to permit loading without excessive tilting. The aircraft shall be equipped with at least one safety belt for securing the person and cot or stretcher to the aircraft.

~~(c) Maintenance. If the applicant is not licensed to perform aircraft servicing, maintaining and repairing, he must show a contract or agreement with a commercial operator licensed to perform this service for all aircraft used in his air ambulance service. A copy of the contract or agreement must be attached to the application.~~

(c) Department of Health Certificate. The air ambulance service shall be the holder of a current authorized air ambulance service certificate with specifications for nonemergency or emergency service, or both, issued by the Minnesota Department of Health. A copy of the certificate shall be attached to the application.

(d) Insurance. ~~The applicant for an air ambulance service endorsement on a commercial operations license must hold insurance contracts valid and in force for the duration of the license which provide~~ The minimum insurance coverage for each accident shall be ~~in~~ the ~~following~~ types and amounts ~~with a reliable insurance company, or companies, authorized by the Insurance Commissioner to do business in the State of Minnesota:~~ as specified by the Civil Aeronautics Board.

(e) Transportation of Dead Human Bodies. The provisions contained in this section shall also apply to the transportation of dead human bodies by airplane, and such bodies shall be transported on the type of cot or stretcher descri in Aero 23 (b).

(f) ~~Air Ambulance Service.~~ Air Taxi/Commercial Operator Certificate. The air ambulance service shall be the holder of an air taxi/commercial operator certificate with operating specifications as issued by the Federal Aviation Administration, and ~~if required,~~ a letter of registration from the Civil Aeronautics Board. A copy of this certificate with operating specifications shall be attached to the application.

~~(g) The applicant must meet the requirements of Aero 17.~~

Aero 24 Aerial Spraying or Dusting

(a) Aircraft Spraying or Dusting. Any person applying or offering to apply chemicals or other substances from an aircraft shall be deemed to be engaged in aerial spraying or dusting.

(b) ~~Endorsement.~~ Emergency Provision. ~~Before any person may engage in aerial spraying or dusting for hire or reward, he shall first obtain an endorsement on his commercial operations license certifying his authority to engage in such activity. This section shall not apply to pilots employed by commercial operations licensees.~~ If the Governor declares an emergency to exist with respect to crop conditions, the Commissioner of Aeronautics may authorize variances from ~~this section~~ the aero regulations.

(c) Spraying or Dusting Pilots. Each commercial operations licensee authorized to engage in aerial spraying or dusting shall complete pilot qualification forms furnished by the Department for each person engaged in piloting aircraft in the licensee's spraying or dusting operation. These forms shall be forwarded to the Department of Aeronautics. If the pilots' qualifications meet the minimum qualifications prescribed by these regulations, certificates will be prepared and forwarded, certifying that the pilots are authorized to engage in aerial spraying or dusting in the licensee's operation. These certificates shall be in actual possession of the pilots at all times when engaged in aerial spraying or dusting in this state.

(d) Department of Agriculture Recommendation. No endorsement authorizing a commercial operator to engage in aerial spraying or dusting will be issued and no pilot will be certified as being qualified to do aerial spraying or dusting unless the Department of Agriculture recommends approval of such endorsement or certificate.

(e) Aircraft and Pilot Safety Equipment. Every aircraft used for aerial spraying or dusting in this state shall be provided with a positive method of shutting off distribution of chemicals or other substances which shall prevent material from leaking or dropping except over the areas of intended application. Every aircraft shall also be equipped with quick-detachable safety belt and shoulder harness. Each pilot shall wear protective headgear during such flight operation.

(f) Pilot's Special Qualifications. Each pilot engaging in aerial spraying or dusting shall, in addition to possessing a commercial ~~pilot's~~ or airline transport pilot's certificate, have:

(1) ~~1,000 hours flying time; or~~ 10 hours of flying time in the preceding six months in the make and model of aircraft to be used; ~~or~~ and

(2) 30 hours of actual aerial application or distribution of chemicals or other substances; or

(3) ~~5~~ 10 hours of simulated crop spraying or dusting under the supervision of a pilot with a commercial ~~rating~~ or airline transport pilot certificate and a minimum of one year's crop spraying or dusting experience and the recommendation of such pilot who supervised the simulated training; or

(4) 5 hours of dual instruction in crop spraying or dusting, such dual to be given by a pilot with ~~commercial and~~ an instructor ~~ratings~~ rating, who has a minimum of one year's spraying or dusting experience, and the recommendation of such pilot who gave such dual instruction; ~~and~~ .

~~(5) 10 hours of flying time in the preceding six months in the type of aircraft to be used.~~

(g) Nonresident Applicant. Every nonresident commercial operation applicant shall give his permanent address and the name of the airport from which his operations are conducted in his resident state.

~~(h)--Aircraft-and-Pilot-Safety-Equipment.--Every-aircraft-used-in-spraying-or-dusting-shall-be-equipped-with-quick-detachable-safety-belt-and a-quick-detachable-harness,-and-each-pilot-shall-wear-a-protective-headgear during-such-flight-operation.~~

~~(i)~~ (h) Aircraft. In the application, the aerial applicator must inform the Commissioner of all aircraft ~~(~~ by factory make, model, year and "N" number~~)~~ that the aerial applicator intends to use within the state.

~~(j)~~-~~(i)~~--~~The-applicant-must-meet-the-requirements-of-Aero-17-unless specifically-excepted-therefrom.~~

(i) Certificate. The applicant shall be the holder of a commercial agricultural aircraft operator certificate. A copy of this certificate with amendments shall be attached to the application.

(j) Insurance. The minimum insurance coverage for each accident shall be the following types and amounts:

(1) $100,000 per person and $300,000 per occurance for bodily injury. excluding passengers.

(2) $100,000 per plane for property damage, excluding chemical drift.

Aero 25 Aircraft Servicing, Maintaining and Repairing

~~(a) Shop and Maintenance Facilities. The applicant shall show available shop and maintenance facilities, equipment and qualified personnel sufficient to maintain aircraft, the repair of which is undertaken. As used herein, "shop" shall mean a building or portion of a building of adequate size to completely enclose at least one fully assembled aircraft with sufficient space to work on the aircraft. The shop shall be properly heated, lighted, and ventilated, and shall have floor of substantial construction. Adequate fire protection equipment shall be provided and at least one outward swinging exit door for personnel shall be available. The shop shall be equipped with all commonly used tools and equipment for the servicing of aircraft. At least one licensed "A & P" mechanic or one "A" mechanic and one "P" mechanic shall be employed, together with additional personnel as may be necessary.~~

(a) Aircraft Servicing, Maintaining, and Repairing. Any person providing or offering to provide aircraft maintenance (as defined in FAR Part 1), major or minor repair or alteration to airframes or aircraft power plants or both, shall be deemed to be engaged in the business of aircraft servicing, maintaining and repairing, and shall have a commercial operations license with an endorsement to certify his authority to engage in aircraft servicing, maintaining and repairing.

~~(b) A fully charged fire extinguisher, a minimum of ten pounds of carbon dioxide, or equivalent, shall be kept available in each shop in which aircraft or component parts thereof are customarily repaired.~~

(b) Requirements. To be eligible for an aircraft servicing, maintaining and repairing endorsement, the applicant shall show an available shop maintenance facility, whether owned or leased, which meets the following standards:

(1) A building or portion of a building located on a public or private-commercial airport, of adequate size to completely enclose at least one fully assembled aircraft with sufficient space to work on the aircraft.

(2) Adequate fire protection equipment to meet the standards of the local fire marshal's office, but not less than one outward swinging personnel exit door and one fully charged fire extinguisher with a minimum of ten pounds of carbon dioxide or its equivalent.

(3) At least one "A & P" mechanic or one "A" mechanic and one "P" mechanic shall be employed.

~~(c)--The-applicant-must-meet-the-requirements-of-Aero-17.~~

(c) Insurance. The minimum insurance coverage for each accident shall be of the following types and amounts:

(1) $100,000 per person and $300,000 per accident for premise hazard for bodily injury.

(2) $100,000 per accident for premise hazard for property damage.

(3) Products hazard insurance shall be carried.

Aero 26 Commuter Air Carriers

~~(a)--Any-person-offering-to-provide-scheduled-air-transportation-in-this-state must-obtain-a-commercial-operations-license-and-a-scheduled-air-carrier-certificate of-of-registration-from-the-Commissioner-of-Aeronautics-before-engaging-in-such-activity, and-annually-thereafter.~~

(a) Commuter Air Carrier. "Commuter Air Carrier" shall be defined as an air taxi operator which performs at least five round trips per week between two or more points and publishes flight schedules which specify the times, days of the week and places between which such flights are performed, or transports mail by air, pursuant to contract with the United States Postal Service.

~~(b)--As-used-in-these-rules,-"air-carrier"-means-that-person-owning,-controlling, operating-or-managing-aircraft-as-a-common-carrier-of-either-persons-or-property,-or both,-for-compensation-on-regularly-scheduled-flights.~~

(b) Requirements. Any person requesting an endorsement to certify his authority to engage in commuter air carrier service on his commercial operations license must meet the following mimimum requirements:

~~(f)~~ (1) ATCO Certificate. The commuter air carrier shall be the holder of an air taxi/commercial operator certificate with operating specifications as issued by the Federal Aviation Administration, and ~~if-required,~~ a letter of registration from the Civil Aeronautics Board. A copy of this certificate with operating specifications shall be attached to the application.

~~(g)~~ (2) Use Agreements. A copy of current use agreements with owners of each airport to be served in the state shall be attached to the application. ~~This~~ Each agreement shall set forth what facilities will be used on the airport.

~~(h)~~ (3) Faithful Performance Bond. ~~covering-advance-ticket-sales.~~

(aa) The commuter air carrier must file with the Commissioner of Aeronautics ~~of-the-State-of-Minnesota~~, on a form provided by him, a fully executed copy of a continuous corporate surety bond to the State of Minnesota in the sum of $10,000 conditioned upon the refund of all unperformed advance ticket sales to passengers made by such commuter air carrier or his agents. The aggregate liability for the surety of all breaches of the conditions of the bond in no event shall exceed the principal sum of $10,000. The surety on such bond may cancel such bond upon giving sixty days' notice in writing to the Commissioner of Aeronautics ~~of-the-State-of-Minnesota~~, and thereafter the surety shall be relieved of the liability for any breach of conditions occurring after the effective date of cancellation. ~~provided,-however,-that~~ W Whenever a bond under this section ceases to be in effect for any reason, ~~said-certificate-of-registration~~ the commercial operations license shall be revoked.

~~The-bond-form-shall-be-provided-by-the-Commissioner-of-Aeronautics. A-copy-of-the-executed-bond-certificate-will-be-attached-to-the-application~~

(bb) The bond shall not enlarge upon or alter in any way the ticket contract between the commuter air carrier and its customers.

~~(i)~~ (4) Aircraft. In the application, the commuter air carrier must inform the Commissioner of all aircraft (by factory make, model, and "N" number) that the commuter air carrier intends to use within the state.

~~(j)~~ (5) Schedules and Rates. The commuter air carrier must submit a copy of its proposed schedules and its proposed passenger and freight rates with each application. No schedule or rate change shall be made without notifying the Commissioner of Aeronautics as to such change at least ten days before such change is to go into effect.

~~(k)~~ (6) The commuter air carrier shall file with the Commissioner of Aeronautics a copy of all reports which it files with the Civil Aeronautics Board or its successor agencies, such filing to be done within ten days after such reports are filed with said agencies.

~~(c)--These-regulations-do-not-apply-to-that-portion-of-an-air-carrier's operations-in-this-state-which-is-conducted-between-points-named-in-a-then-current certificate-of-public-convenience-and-necessity-issued-by-the-Civil-Aeronautics-Board,-or-its-successor.~~

(c) Insurance. The minimum insurance coverage for each accident shall be the types and amounts as specified by the Civil Aeronautics Board.

~~(l)--Compliance-with-the-Law.--A-person-engaged-in-commercial-operations as-a-scheduled-air-carrier-shall-comply-with-the-laws-of-the-State-of-Minnesota and-the-Rules-and-Regulations-promulgated-by-any-state-department-or-agency-and-the-Federal-Government.~~

~~(m)--Nontransferability.--The-license-and-the-certificate-shall-not-be-transferable-to-other-persons.~~

(d) Exceptions. ~~(d)~~ No commuter air carrier shall operate aircraft on regularly-scheduled flights ~~except~~ unless in accordance with the provisions of these regulations except that ~~(e)~~ these regulations do not apply to that portion of a commuter air carrier's operations in this state which is conducted between points named in a then-current certificate of public convenience and necessity issued by the Civil Aeronautics Board, or its successor.

~~(e)--To-obtain-the-commercial-operations-license-and-the-certificate-of registration,-the-following-are-minimum-requirements-which-must-be-met-by-the-air carrier.--Application-shall-be-on-forms-supplied-by-the-Commissioner-of-Aeronautics.~~

Aero 28 General Operation Rules

It is proposed that Aero 28 be amended by adding subdivisions (i) and (j) as follows:

(i) The use of an unlicensed landing area shall in no way endanger persons or property, and suitable safeguards necessary to protect the safety of passengers and public shall be provided.

(j) Where it uses an unlicensed water landing area, the aircraft shall carry an approved type of life preserver for the pilot and each passenger.

Aero 33 General Flight Rules

It is proposed that Aero 33 (f) be amended as follows:

(f) Proximity of aircraft. No person shall operate an aircraft in such proximity to other aircraft as to create a collision hazard. No person shall operate an aircraft in formation flight when passengers are carried for hire, except when it is required for parachuting operations. No aircraft shall be operated in formation flight except by prearrangement between the pilots in command of such aircraft.

It is further proposed that Aero 33 (k) (5) be amended as follows:

(5) All approaches to and take-offs from the water area shall be made in such a manner as to clear all structures on the land by at least 100 feet, and wherever the area of the body of water will permit, such landing and take-offs shall be made at a distance of not less than 300 feet, both laterally and vertically, from any boat or person on the surface of the water, or as near to 300 feet as the area of the water will permit.

Aero 36 Safety Regulations for Parachuting

It is proposed that Aero 36 (d) (1) be amended as follows:

(1) For parachute jumps onto or within three miles of any public airport, ~~a copy of prior~~ written approval of that airport's management must be submitted with the request for approval. ~~If approval is given it will indicate if the drop zone is for the exhibition jump only or may be used at other times without another request for approval~~. Any drop zone for exhibition jumps must have prior approval from the Commissioner for such use.

It is further proposed that Aero 36 (f) be amended as follows:

(f) Medical Examination. Each person engaged in parachuting shall hold at least a valid ~~Third Class Medical Certificated issued in accordance with FAA standards or be on military jump status.~~ statement issued by a practicing physician signed and dated within two years of any jump certifying that said person has had a physical examination or be on military jump status. A nonresident--that is a person not residing in Minnesota, but wishing to jump in Minnesota at a sanctioned jump meet, may obtain a written waiver of this requirement from the department.

Aero 38 Parachuting Schools and Clubs

It is proposed that Aero 38 (a) (7) be amended as follows:

(7) Insurance. The organization applying for a parachuting training or school endorsement on his license must hold insurance contracts valid and in force for the duration of the license which provide coverage for each accident in the following types and amounts with a reliable insurance company or companies authorized to do business in the State of Minnesota.

~~$50,000 minimum per passenger seat for passenger liability.~~

~~$50,000 per person and $150,000 per accident minimum for aircraft, public liability for bodily injury.~~

~~$50,000 per plane for property damage.~~

$75,000 minimum per passenger seat for passenger liability.

$100,000 per person and $300,000 per accident minimum for aircraft, public liability for bodily injury.

$100,000 per plane for property damage.

DEFINITIONS, PROCEDURAL REGULATIONS, CONTESTED CASES, TAXATION, APPLICATIONS FOR FINANCIAL AID

Aero 1 Definitions

(a) Aerobatic Flight. Maneuvers intentionally performed that exceed a bank of 60 degrees relative to the horizon or a nose-up-or-down attitude of 30 degrees relative to the horizon.

(b) Airport. An area of land or water that is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any.

(c) Airport Elevation. The established elevation of the highest point on the usable landing area measured in feet above mean sea level.

(d) Airport Hazard. Any structure or tree or use of land which obstructs the airspace required for, or is otherwise hazardous to, the flight of aircraft in landing or taking off at the airport; and any use of land which is hazardous to persons or property because of its proximity to the airport.

~~(b)~~ (e) Air Traffic. Aircraft operating in the air or on an airport surface, exclusive of loading ramps and parking areas.

~~(c)~~ (f) Air Traffic Control. A service operated by appropriate authority to promote the safe, orderly, and expeditious flow of air traffic.

~~(d)~~ (g) Air Traffic Clearance. Authorization by air traffic control for the purpose of preventing collision between known aircraft, for an aircraft to proceed under specified traffic conditions within ~~a control zone or control area~~ controlled airspace.

~~(f)~~ (h) Anchor Light. A white light installed so as to be visible in all directions for at least three miles at night under clear atmospheric conditions.

~~(e)~~ (i) Autorotation. A rotorcraft flight condition in which the lifting rotor is driven entirely by the action of the air when the rotorcraft is in motion.

~~(f)~~ (j) Balloon. ~~An aircraft, excluding moored balloons, without mechanical means of propulsion, the support of which is derived from lighter than air gas, and is not engine driven.~~ A lighter-than-air aircraft that is not engine driven.

~~(h)~~ (k) Ceiling. The height above the ground or water of the lowest layer of clouds or obscuring phenomena reported as "broken," "overcast," or "obscuration," and not classified as "thin" or "partial."

~~(i)~~ (l) Controlled Airspace. Airspace designated as a continental control area, control area, control zone, terminal control area, or transition area, within which some or all aircraft may be subject to air traffic control ~~designated by the Commissioner or by the FAA~~.

~~(r)~~ (m) Crew Member. A person assigned to perform duty in an aircraft during flight time ~~and any operations on the ground~~.

(n) Dwelling. Any building or portion thereof designed or used as a residence or sleeping place of one or more persons.

~~(g)~~ (o) FAA. The capital letters "FAA" shall mean the Federal Aviation Administration of the United States.

~~(j)~~ (p) Flight Instructor. A ~~private or commercial~~ pilot who possesses a valid flight instructor's rating as issued by the FAA.

~~(k)~~ (q) Flight Visibility. The average forward horizontal distance from the cockpit of an aircraft in flight at which prominent unlighted objects may be seen and identified by day and prominent lighted objects may be seen and identified by night.

~~(l)~~ (r) Glider. A heavier-than-air aircraft that is supported in flight by the dynamic reaction of the air against its lifting surfaces and whose free flight does not depend principally on an engine.

(s) Height. The purpose of determining the height limits set forth in these regulations, the datum shall be mean sea level elevation.

~~(m)~~ (t) Helicopter. A rotorcraft, that for its horizontal motion, depends principally on its engine-driven rotors.

~~(aa)~~ (u) IFR. The symbol used to designate instrument flight rules.

(v) Key System Airport. Airports having a paved and lighted runway over 5,000 feet in length, capable of accommodating heavy, multi-engine aircraft as well as most of the corporate jet fleet.

(w) Intermediate System Airport. Airports having a paved and lighted runway less than 5,000 feet in length, capable of accommodating all single-engine and most twin-engine aircraft as well as some light jet aircraft.

(x) Landing Strip System Airport. Airports with turf runways capable of accommodating single-engine and light twin-engine aircraft.

~~(p)~~ (y) Letter of Authority. "Letter of Authority" shall be included in the term "license" as used herein.

~~(v)~~ (z) Night. The time between the end of evening civil twilight and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time.

(aa) Nonprecision Instrument Runway. A runway having an existing or planned straight-in instrument approach procedure utilizing air navigation facilities planned or indicated on an approved planning document.

~~(q)~~ (bb) Passenger. An occupant of the aircraft in flight other than a crew member.

(cc) Person. An individual, firm, partnership, corporation, company, association, joint stock association, or body politic, and includes a trustee, receiver, assignee, administrator, executor, guardian, or other representative.

~~(s)~~ (dd) Pilot in Command. The pilot responsible for the operation and safety of an aircraft during flight time ~~and any operations on the ground~~.

(ee) Planned. As used in these regulations, refers only to those proposed future airport developments that are so indicated on a planning document having the approval of the Commissioner.

(ff) Precision Instrument Runway. A runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), a Microwave Landing System (MLS), or a Precision Approach Radar (PAR). Also, a runway for which a precision instrument approach system is planned and is so indicated on an approved planning document.

~~(n)~~ (gg) Rotorcraft. A heavier-than-air aircraft that depends principally for its support in flight on the lift generated by one or more rotors. ~~These rotors are not engine driven but are made to rotate by action of the air when the rotorcraft is moving.~~

(hh) Runway. Any existing or planned paved surface or turf covered area of the airport which is specifically designated and used or planned to be used for the landing and taking off of aircraft.

~~(t)~~ (ii) Second in Command. A pilot who is designated to be second in command of an aircraft during flight time ~~and any operations on the ground~~.

(jj) Slope. An incline from the horizontal expressed in an arithmetic ratio of horizontal magnitude.

(kk) Structure. An object constructed or installed by man, including, but without limitations, buildings, towers, smokestacks, earth formations, and overhead transmission lines.

~~(u)~~ (ll) Sunset and Sunrise. The mean solar times of sunset and sunrise as published in the American Air Almanac, converted to local ~~standard~~ time ~~for the locality concerned~~.

~~(w)~~ (mm) To Pilot. To be in command of an aircraft during takeoff, in flight, landing, or on the ground.

~~(x)~~ (nn) Traffic Pattern. ~~The flow of aircraft operating on and in the vicinity of an airport during specified wind conditions as established by appropriate authority.~~ The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport.

(oo) Tree. Any object of natural growth.

(pp) Utility Runway. A runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.

~~(y)~~ (qq) VFR. The symbol used to designate visual flight rules.

(rr) Visual Runway. A runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an approved planning document.

(ss) Water Surfaces. For the purpose of these regulations, water surfaces shall have the same meaning as land.

~~(z)--VFR-Conditions.--Weather-conditions-equal-to-or-above the-minimum-prescribed-for-flights-under-VFR.~~

~~(bb)--IFR-Conditions.--Weather-conditions-below-the-minimum prescribed-for-flights-under-VFR.~~

~~(cc)--Key,-Intermediate-and-Landing-Strip-Airports.--Key system-airports-are-those-being-used-by-or-intended-to-be-used-by large-multi-engine-and-jet-aircraft.--Intermediate-system-airports shall-be-those-used-or-intended-for-use-by-single-engine-or-light-to medium-multi-engine-aircraft.--Landing-strip-airports-are-those-small airports-which-may-be-unattended,-sod-or-hard-surfaced-and-which-are used-or-intended-for-use-by-single--or-multi-engine-light-aircraft.~~

~~AIRPORT LICENSES, OBSTRUCTIONS TO AIR NAVIGATION, ZONING, UNLICENSED LANDING AREAS, RESTRICTED LANDING AREAS, AND OBSTRUCTION MARKING AND LIGHTING~~

AIRPORT LICENSING, AIRPORT ZONING, OBSTRUCTIONS TO AIR NAVIGATION

Aero 6 ~~Airport licenses~~ General Provisions for Airport Licensing

(a) Airport. The term "airport" as used herein shall include seaplane bases, heliports, and all other designated landing areas.

~~(a)~~ (b) Licensing Procedure. Every ~~public~~ airport ~~and restricted landing area~~, before operating as such, shall be approved and licensed by the Commissioner. (Airports owned or operated by public corporations formed pursuant to the Metropolitan Airports Commission Act need not be licensed.)

~~(b) & (e)~~ (1) Application. Application for license shall be made on forms supplied by the Commissioner and accompanied by the appropriate fee.

~~Public Airport.....$5.00~~
~~Municipal Landing Strip.....$5.00~~
~~Privately owned Commercial Airport.....$5.00~~
~~Public Seaplane Base.....$5.00~~
~~Public Heliport.....$5.00~~
~~Privately owned Commercial Heliport.....$5.00~~
~~Privately owned Commercial Seaplane Base.....$5.00~~
~~Restricted Landing Area.....No Fee~~

Type of License	Fee	Renewal
Public Airport (privately or publicly owned)	$5.00	Annually
Privately-owned Commercial Airport	$5.00	Annually
Personal-use Airport	None	Annually

~~(f)~~ (2) Inspection. The applicant for any license shall offer full cooperation in respect to any inspection which may be made of the airport premises upon proper demand at reasonable hours by any authorized representative of the Commissioner, prior to or subsequent to the issuance of a license.

(3) Ownership. The applicant shall show that he has right of access to and control of the land, or right of access to the water area to be licensed, as owner, co-owner, tenant, or by any other right of entry.

(4) Agency Approvals. No airport shall be licensed until the applicant has submitted evidence of the following agency approvals:

(aa) Federal Aviation Administration Airspace Determination.

(bb) Approval of the Metropolitan Airports Commission for any airport located within the metropolitan area, or within 35 miles of the city hall of either Minneapolis or St. Paul.

(cc) Permits and approvals that may be required of local governmental agencies.

~~(e)~~ (c) Restricted Operation. A letter of authority granting temporary or restricted operation may be issued pending full compliance with the provisions of these rules and regulations and shall have an expiration date.

(d) License Display. The license issued under this section shall be posted in a prominent place at the airport.

~~(g)~~ (e) Nontransferability. Licenses shall not be transferable.

(f) Alteration or Change of Operational Status. The licensee shall immediately notify the Commissioner of any proposed construction, alteration, or change in the operational status of the airport. The licensee is also responsible for properly notifying the Federal Aviation Administration of such alterations or changes.

(g) Danger Area or Closed Airport. Any part of the landing strip or runway which has become temporarily unsafe, or for any reason is not available for use, shall be marked by suitable warning flags and/or flares which shall clearly show the boundaries of the danger area. Upon the closing, abandonment or cessation of any airport, the licensee shall immediately notify the Commissioner, return the current license, and mark the landing area in a manner that clearly indicates that the airport is closed to air traffic. All markings indicating a usable runway must be obliterated. ~~A cross~~ An "X" must be placed at a central location, the minimum size to be 3' x 30', and of contrasting colors to the surrounding surface where the "X" ~~cross~~ is placed. In the event that the licensee fails to do the above, then and in such case, and without excusing the licensee, the Commissioner may go upon the premises and remove the markings that indicate a usable runway and may also mark the airport as indicated above.

(h) Exceptions. In any case where it is determined that the public interest and safety will not be adversely affected, the Commissioner may waive any of the requirements stated in Aero 6 - 16, subject to such conditions or limitations as may be necessary. Conversely, where it is determined that the public interest and safety will be adversely affected, the Commissioner may deny the issuance of a license, despite compliance with regulations herein.

Aero 7 (Delete in its entirety.) Reserved for Future Use

Aero 8 Licensing of a Public Airport

(a) ~~Definition~~ Public Airport. A public airport is any airport, whether privately or publicly owned, the public use of which for aeronautical purposes is invited, permitted, or tolerated by the owner or person havint right of access and control. ~~A public airport will be granted a license when it is shown that it has met the following minimum requirements:~~ The requirements of this section do not apply to the licensing of public seaplane bases or public heliports. Specific requirements for the licensing of a public seaplane base are found in Aero 12. Specific requirements for the licensing of a public heliport are found in Aero 14.

(b) Requirements. A public airport shall be granted a license when it has shown that it has met the general provisions of Aero 6 and the following minimum requirements:

(1) Size. Minimum usable lengths and widths of turf landing strips constructed before July 1, 1958 have been permitted, if they were 2,000 feet long and 150 feet wide. All such minimum turf landing strips prior to July 1, 1976, must be improved so that they have at least one landing strip with a minimum usable length of 2,500 feet and width of 150 feet. No turf landing strip licenses will be renewed after July 1, 1976, unless they have reached the minimum usable length of 2,500 feet and a width of 150 feet by that date. New turf landing strips constructed after July 1, 1958, shall have minimum usable lengths and widths of 2,500 feet long and 150 feet wide.

(2) Surface. The effective landing surface shall be smooth and free from hazards or obstructions. The longitudinal gradient on any part of the landing area shall not exceed 2%. The transverse gradient shall not exceed 3%.

~~(3) Obstructions. The obstruction clearance requirements for licensing are set forth in Aero 9 of these regulations. The minimum obstruction clearance of the glide slope shall be 15 feet for highways at the near edge, 17 feet for interstate highways and 23 feet for railroads at the top of rail. The approach zone to a runway or landing strip shall be clear above a 20:1 glide slope commencing 200 feet beyond the end of a hard surfaced runway (100 feet beyond a sod runway) and extending outward for 10,000 feet. The minimum width is 250 feet at the end near the runway widening to 2,250 feet.~~

(3) Obstructions. The minimum obstruction clearance for licensing requires that no structure or mobile object, other than those necessary and incidental to airport operation, and no tree shall penetrate the imaginary airspace surfaces discribed in Aero 9, paragraphs (e) (1), (e) (4), and (e) (5). The standards of this section shall also apply to traverse ways only after their heights have been increased as described in Aero 9 (b).

(4) Markers. The landing strips or areas, ~~unless clearly defined by distinct contrasting surroundings of permanent nature~~, shall be outlined with effective markers which shall be constructed and installed in a manner approved by the Commissioner.

(5) Buildings. Buildings and structures on a public airport shall not be closer than 250' to the centerline of the runway. For height limitations see Aero 9. (e)

~~(6) Danger Area or Closed Airport. Any part of the landing strip or runway which has become temporarily unsafe, or for any reason is not available for use, shall be marked by suitable warning flags and/or flares which shall clearly show the boundaries of the danger area. Upon the closing, abandonment or cessation of any airport, the licensee shall immediately notify the Commissioner, return the current license, and mark the landing area in a manner that clearly indicates that the airport is closed to air traffic. All markings indicating a usable runway must be obliterated. A cross must be placed at a central location, the minimum size to be 3' x 30' of contrasting colors to the surrounding surface where the cross is placed. In the event that the licensee fails to do the above, then and in such case, and without excusing the licensee, the Commissioner may go upon the premises and remove the markings that indicate a usable runway and may also mark the airport as indicated above.~~

~~(7)~~ (6) Wind Indicator. All public airports shall be equipped with a wind cone, 3' x 12', blaze orange in color, or other indicator as approved by the Commissioner, which must be operable and clearly visible from the pattern altitude when within one mile of the airport during daylight hours.

~~(8)~~ (7) Fencing. Such adequate fencing or barriers shall be constructed as will prevent all persons not engaged in flight activities from having access to a position of danger with relation to aircraft in the vicinity of building area and on the flight line.

~~(9)~~ (8) Lighting. If the airport is lighted for night operations and is advertised a lighted for night operations, the lights shall be kept on from dusk to dawn. The wind indicator, in this case, must also be lighted as approved by the Commissioner. Any object in the approach zone of a lighted visual utility runway ~~or landing strip~~ that extends above a ~~40:1 glide~~ slope of 30:1, ~~starting 200 feet from the end of a runway and extending 1,000 feet outward,~~ shall be marked and lighted in accordance with the standards for obstruction marking and lighting where requested by the Commissioner in the interest of safety.

~~(10)~~ (9) Tiedowns. Facilities must be furnished for at least three more aircraft than regularly use the facilities. The tiedowns are to be marked so as to be readily located and shall not protrude above the surface.

~~(11)--Sanitary-public-toilets.~~

(10) Toilets. A sanitary public toilet facility shall be provided at all public airports. An enclosed portable chemical toilet, properly maintained and serviced, shall be acceptable.

~~(12)~~ (11) Aviation Fuel. All aviation fuel dispensed on any airport shall be filtered to be free of solid matter in excess of 5 microns particle size and to have a free water content less than 30 parts per million parts of fuel.

(12) Fire Extinguishers. At least one fire extinguisher shall be available in the vicinity of the fuel pump or on the flight line if fuel is dispensed. It must be a minimum of 10 pounds of carbon dioxide or equivalent.

~~(13)--An-area-map-shall-be-posted-at-the-airport-office-in-a-prominent place,-showing-danger-or-restricted-areas.--Safety-and-traffic-rules promulgated-by-the-airport-manager-shall-be-posted-adjacent-to-the-map.~~

(13) ~~(14)~~ Telephone. When feasible, a telephone shall be made available for public use. ~~on-a-24-hour-basis.~~ Telephone numbers for the appropriate Flight Service Station, for emergency assistance, and for aircraft servicing shall be prominently posted.

(14) Bulletin Board. A weather-protected bulletin board shall be prominently located on the airport. Posted thereon shall be the airport license, safety and traffic rules, and an area map showing danger or restricted areas.

~~(15)--An-office-or-other-suitable-facilities-shall-be-available.~~

~~(b)--Privately-owned-Commercial-Airport.--A-privately-owned-commercial-airport-is-an-airport-used-for-commercial-purposes.--The-persons-who-may-use-the airport-are-determined-by-the-owner-of-the-airport.--Licensing-requirements-are-the same-as-in-Aero-8-(a)-1---10.~~

Aero 8 A Licensing of a Privately-owned Commercial Airport.

~~(b)~~ (a) Privately-owned Commercial Airport. A privately-owned commercial airport is a restricted airport used for commercial purposes. The persons who may use the airport are determined by the owner of the airport. ~~Licensing requirements are the same as Aero 8 (a) 1 - 10.~~

(b) A privately-owned commercial airport will be granted a license when it has shown that it has met the general provisions of Aero 6 and the minimum requirements of Aero 8 (b) 1-6, 11, and 12.

(c) A privately-owned commercial airport may be used to satisfy the public airport requirements of Aero 17.

(d) A privately-owned commercial airport shall not be displayed on any chart for public distribution.

Aero 9 Criteria for Determining Obstructions to Air Navigation, ~~Minimum Zoning Standards, and Marking and Lighting of Structures~~

(NOTE: See Minn. Stat. 360.061 et seq., for airport zoning statutes and Minn. Stat. 360.81 et seq., for regulations of structure heights.)

~~(a) Aero 9 sets forth the minimum airspace zoning standards, the criteria for determining obstructions to air navigation, and the marking and lighting of obstructions.~~

~~Objects which project above any airport imaginary surfaces describe in Aero 9 (c) are obstructions to air navigation. Objects exceeding the limiting heights above ground described in (d) through (i) are obstructions to air navigation.~~

~~Any person or governmental body having airport zoning powers under Minn. Stat. 360.061 to .076 may adopt airport zoning ordinances, orders or regulations more restrictive than the minimum zoning standards set forth herein or in any other applicable law.~~

(a) Obstruction. An existing object, including a mobile object, is, and a future object would be, an obstruction to air navigation if it is of greater height than any of the heights or surfaces established herein.

~~(b) Definitions~~

~~(1) Airport Elevation. The established elevation of the highest point on the usuable landing area.~~

~~(2) Airport Hazard. Any structure or tree or use of land which obstructs the airspace required for, or is otherwise hazardous to, the flight of aircraft in landing or taking off at the airport; and any use of land which is hazardous to persons or property because of its proximity to the airport.~~

~~(3) Dwelling. Any building or portion thereof designed or used as residence or sleeping place for one or more persons.~~

~~(4) Height. For the purpose of determining the height limits in all zones set forth in these regulations, the computation shall be based on mean sea level elevation.~~

~~(5) Land. In addition to its normal meaning, means water surfaces within the zone being protected.~~

~~(6) Landing Area. The area of the airport used for landing, taking off or taxiing of aircraft.~~

~~(7) Runway. Any paved surface or any grass or turf covered area on the airport which is specifically designated and used for the landing or takeoff of aircraft.~~

~~(8) Precision Instrument Runway. A runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), or a Precision Approach Radar (PAR). Also, a runway for which a precision instrument approach is planned and is so indicated on an approved planning document.~~

~~(9)--Nonprecision-Instrument-Runway.--A-runway-having-an-existing or-planned-straight-in-instrument-approach-procedure-utilizing-air-navigation facilities-with-only-horizontal-guidance,-and-for-which-no-precision-approach facilities-are-planned-or-indicated-on-an-approved-planning-document.~~

~~(10)--Visual-Runway.--A-runway-intended-solely-for-the-operation-of aircraft-using-visual-approach-procedures,-with-no-straight-in-instrument approach-procedure-and-no-instrument-designation-indicated-on-an-approved planning-document.~~

~~(11)--Slope.--An-incline-from-the-horizontal-expressed-in-an-arithmetic ratio-of-horizontal-magnitude-to-vertical-magnitude.~~

(b) Traverse Ways. Except for traverse ways whose activities are coordinated with adjacent controlled airports, the standards of this section apply only after the heights of traverse ways are increased by:

(1) 17 feet for interstate highways.
(2) 15 feet for all other public roadways.
(3) 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for private roads.
(4) 23 feet for railroads.
(5) For waterways and all other traverse ways not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it.

(c) Notification. Any sponsor who proposes any construction or alteration that would exceed a height of 200 feet above ground level at the site, or any construction or alteration of greater height than an imaginary surface extending outward and upward at a slope of 100:1 from the nearest point of the nearest runway of a public airport shall notify the Commissioner at least 30-days in advance.

(d) General Obstructions. The following objects will be considered general obstructions to air navigation:

(1) ~~(d)~~ Objects extending more than 500 feet above ~~the-highest-point of-land-within-a-one-mile-radius-from-said-object-will-be-considered obstructions.~~ ground level at the site of the object.

~~(e)--Object-in-instrument-approach-areas,-more-than-100-feet-above the-ground-or-100-feet-above-the-elevation-of-the-approach-end-of-the runway,-whichever-gives-the-higher-elevation,-within-three-statute miles-of-the-runway-end,-and-increasing-in-height-above-ground-in-the proportion-of-25-feet-for-each-additional-statute-mile-or-distance outward-from-the-runway-end-but-not-exceeding-250-feet-within-ten statute-miles-of-the-runway-end-will-be-considered-obstructions.~~

(2) ~~(f)~~ Objects more than 200 feet above the ground or more than 200 feet above the established airport elevation, whichever gives the higher elevation, within three ~~statute~~ nautical miles of the nearest runway of an airport, and increasing in height in the proportion of 100 feet for each additional ~~statute~~ nautical mile of distance from the airport but not exceeding a maximum of 500 feet above ground ~~will-be-considered obstructions~~.

(3) ~~(g)~~ Objects which would increase the minimum obstruction clearance altitude of a federal airway or approved off-airway route. ~~will-be considered-obstructions~~.

(4) ~~(h)~~ Objects whose elevation will increase a precision or non precision instrument approach ~~minimum-flight-altitude-will-be--considered obstructions~~ flight altitude minimum or flight visibility minimum.

~~(i)--Objects-within-a-civil-airway-or-traffic-control-area,-more-than 200-feet-above-the-ground-or-1451-feet-below-the-established-minimum-flight altitude,-whichever-gives-the-higher-elevation,-will-be-considered-obstructions. The-minimum-flight-altitudes-are-normally-established-from-the-highest-point within-five-statute-miles-of-the-centerline-of-the-civil-airway-or-traffic control-area-for-the-section-of-airway-or-control-area-effected.~~

~~(e)~~ (e) ~~Airport-imaginary-surfaces-are-described-and-defined-below.~~ Obstructions to Public Airports. An object will be considered an obstruction to a public airport (excluding heliports) if it is of greater height than any of the following airport imaginary surfaces.

(1) Primary Surface. An imaginary surface logitudinally centered on a runway and: ~~extending~~

~~(a~~a) Extending 200 feet beyond each end of a runway with a specially-prepared hard surface or planned hard surface; or

(bb) Coinciding with ~~100-feet-beyond~~ each end of other runways. The width of the primary surface is:

~~(ee)~~ (cc) 250 feet for ~~all-other~~ visual utility runways; or

(dd) 500 feet for ~~all-other~~ nonprecision instrument runways and for ~~all~~ visual runways ~~having-specially-prepared-hard-surface-or-planned-hard surface.~~ other than utility; or

~~(ee)~~ (ee) 1,000 feet for precision instrument runways and for nonprecision instrument runways having visibility minimums as low as three-fourths of a statute mile.

The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline.

(2) Horizontal Surface. An imaginary horizontal surface with its height 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of specified radii from the center of each end of the primary surface of each runway and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is:

(aa) 10,000 feet for precision instrument runways and for nonprecision instrument runways having visibility minimums as low as three-fourths of a statute mile; or

(bb) 6,000 feet for all other runways.

When a 6,000-foot arc is encompassed by tangents connecting two adjacent 10,000-foot arcs, the 6,000-foot arc shall be disregarded in the construction of the perimeter of the horizontal surface.

(3) Conical Surface. An imaginary conical surface extending upward and outward from the periphery of the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet as measured radially outward from the periphery of the horizontal surface.

(4) Approach Surface. An imaginary surface longitudinally centered on the extended centerline at each end of a runway. The inner edge of the approach surface is at the same width and elevation as, and coincides with,

the end of the primary surface. The approach surface inclines upward and outward at a slope of:

(aa) ~~(bb)~~ 20:1 for a horizontal distance of 10,000 feet for ~~other~~ visual utility runways; or

(bb) ~~(aa)~~ 40:1 for a horizontal distance of 10,000 feet for ~~all~~ nonprecision instrument runways and for all visual runways ~~having specially-prepared-hard-surfaces-or-planned-hard-surfaces;-or~~ other than utility.

The approach surface expands uniformly to a width of:

(cc) ~~(ff)~~ 2,250 feet for other visual utility runways; or

(dd) ~~(ee)~~ 2,500 feet for ~~all~~ visual runways ~~having-specially prepared-hard-surfaces-or-planned-hard-surface;-or~~ other than utility; or

(ee) ~~(dd)~~ 3,500 feet for ~~all-other~~ nonprecision instrument runways ~~or~~ having visibility minimums greater than three-fourths statute mile; or

(ff) ~~(ee)~~ 4,000 feet for non precision instrument runways having visibility minimums as low as three-fourths of a statute mile.

(5) Precision Instrument Approach Surface. An imaginary surface longitudinally centered on the extended centerline at each end of a precision instrument runway. The inner edge of the precision instrument approach surface is at the same width and elevation as, and coincides with, the end of the primary surface. The precision instrument approach surfaces inclines upward and outward for a horizontal distance of 10,000 feet at a slope of 50:1, expanding uniformly to a width of 4,000 feet, then continues upward and outward for an additional horizontal distance of 40,000 feet at a slope of 40:1, expanding uniformly to an ultimate width of 16,000 feet.

(6) Transitional Surface. An imaginary surface extending upward and outward at right angles to the runway centerline and the runway centerline extended at a slope of 7:1 from the sides of the primary surfaces and from the sides of the approach surfaces until they intersect the horizontal surface or the conical surface.

Transitional surface for those portions of the instrument approach surface which project through and beyond the limits of the conical surface extend a distance of 5,000 feet measured horizontally from the sides of the approach surface and at right angles to the extended instrument runway centerline.

~~(j)~~ (f) Obstructions to Public Heliports. An object will be considered an obstruction to a public heliport if it is of greater height than any of the following heliport imaginary surfaces.

~~(1)--Objects-which-project-above-the-heliport-primary-surface,-heliport approach-surface-or-heliport-transitional-surface-are-obstructions-to-air navigation.~~

~~(2)~~ (1) Heliport Primary Surface. The primary surface of a heliport coincides in size and shape with the designated takeoff and landing area. This surface is a horizontal plane at the elevation of the established heliport elevation.

~~(3)~~ (2) Heliport Approach Surface. The heliport approach surface begins at each end of the primary surface, with the same width as the primary surface and extends outward and upward at a slope of 8:1 for a horizontal distance of 4,000 feet where its width is 500 feet.

~~(4)~~ (3) Heliport Transitional Surface. The heliport transitional surfaces extend outward and upward from the lateral boundaries of the primary surface and from the approach surfaces at a slope of 2:1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces. ~~As-to-a-privately-owned-commercial-heliport,-this subparagraph-3-need-not-be-applied-in-all-directions-where-there-are obstruction-free-approaches-from-two-directions-with-at-least-a-2:1-clear-angle-in-a-third-direction.~~

~~(k)~~ (g) The standards for marking and lighting structures are contained in FAA Advisory Circular 70/7460-~~1B~~ 1D, Obstruction Marking and Lighting, and any subsequent changes, except that sperical markers ~~(Chapter-3,-8-B-(1)~~ shall be a diameter of not less than 30 inches, and except that the colors of the markers shall be aviation orange, white, and chrome yellow, and be installed in that sequence.

Aero 10 ~~Land-Use~~ Airport Zoning Standards

~~(a)--Aero-10-sets-forth-the-minimum-land-use-safety-and-noise-sensitivity zoning-standards-and-the-criteria-for-determining-land-uses-incompatible-with airports.~~

(a) Airport Zoning. Contained herein are minimum standards for the zoning of public airports as to airspace, land use safety, and noise sensitivity.

~~(b)--Definitions.--The-terms-used-herein-shall-be-defined-in-the-same-manner as-they-are-defined-in-Aero-9.~~

(b) Airport Zoning Powers. Any person or governmental body having airport zoning powers under M. S. 360.061 to .076 may adopt airport zoning ordinances, orders, or regulations more restrictive than the minimum zoning standards set forth herein or in any other applicable law.

(c) Airspace Zones. The following airspace zones are established with relation to an airport and each runway.

(1) Primary Zone. All that land which lies directly under an imaginary primary surface as defined in Aero 9 (e) (1).

(2) Horizontal Zone. All that land which lies directly under an imaginary horizontal surface as defined in Aero 9 (e) (2).

(3) Conical Zone. All that land which lies directly under an imaginary conical surface as defined in Aero 9 (e) (3).

(4) Approach Zone. All that land which lies directly under an imaginary approach surface as defined in Aero 9 (e) (4).

(5) Precision Instrument Approach Zone. All that land which lies directly under an imaginary precision instrument approach surface as defined in Aero 9 (e) (5).

(6) Transitional Zone. All that land which lies directly under an imaginary transitional surface as defined in Aero 9 (e) (6).

(d) Height Restrictions. Except as necessary and incidental to airport operation, no structure or tree shall be constructed, altered, or allowed to grow in any airport zone so as to project above any of the imaginary airspace surfaces as established in paragraph (c).

~~(c)~~ (e) Land Use Safety Zones. The following land-use safety zones are established with relation to an airport and each runway.

(1) Safety Zone A. In the approach zones of a runway, Safety Zone A extends outward from the end of the primary surface a distance equal to two-thirds the runway length or planned runway length.

(2) Safety Zone B. In the approach zones of a runway, Safety Zone B extends outward from Safety Zone A a distance equal to one-third the runway length or the planned runway length.

(3) Safety Zone C. All that land which is enclosed within the perimeter of the horizontal zone defined in paragraph (c) (2) and which is not included in Zone A or Zone B.

(f) ~~(d) Restrictions in Land Use Safety Zones.~~ Use Restrictions. In order to restrict those uses which may be hazardous to the operational safety of aircraft operating to and from an airport, and furthermore to limit population and building density in the runway approach areas, thereby creating sufficient open space so as to protect life and property in case of accident, the following use restrictions are applied to the land use safety zones.

(1) General. No use shall be made of any land in any of the safety zones which creates or causes interference with the operation of radio or electronic facilities on the airport or with radio or electronic communications between the airport and aircraft, makes it difficult for pilots to distinguish between airport lights and other lights, results in glare in the eyes of pilots using the airport, impair visibility in the vicinity of the airport, or otherwise endangers the landing, taking off, or maneuvering of aircraft.

(2) Zone A. Zone A shall contain no buildings, temporary structures, exposed transmission lines, or other similar land use structural hazards, and shall be restricted to those uses which will not create, attract, or bring together an assembly of persons thereon. Permitted uses may include, but are not limited to, such uses as agriculture, (seasonal crops), horticulture, raising of livestock, animal husbandry, wildlife habitat, light outdoor recreation (nonspectator), cemeteries and auto parking.

(3) Zone B. Zone B shall be ~~used for the following purposes only:~~ restricted in use as follows:

~~(aa) Agricultural and residential purposes, provided there shall not be more than one single family dwelling per three acre tract.~~

~~(bb) Commercial or industrial use which meets the following minimum standards.~~ (delete in its entirety)

(aa) Each use shall be on a site whose area shall not be less than three acres.

(bb) Each use shall not create, attract, or bring together a site population that would exceed 15 times that of the site acreage.

(cc) Each site shall have no more than one building plot upon which any number of structures may be erected.

(dd) A building plot shall be a single, uniform and noncontrived area, whose shape is uncomplicated and whose area shall not exceed the following minimum ratios with respect to the total site area:

Site Area at Least (Acres)	But Less Than (Acres)	Ratio of Site Area to Bldg. Plot Area	Building Plot Area (sq. ft.)	Max. Site Population (15 persons/A)
3		12:1	10,900	45
	4	12:1		
4		10:1	17,400	60
	6	10:1		
6		8:1	32,600	90
	10	8:1		
10		6:1	72,500	150
	20	6:1		
20	and up	4:1	218,000	300

~~(ee)~~

(ee) The following uses are specifically prohibited in Zone B: churches, hospitals, schools, theaters, stadiums, hotels and motels, trailer courts, camp grounds, and other places of public or semipublic assembly.

(4) Zone C. Zone C is subject only to the general restrictions contained in paragraph ~~(d)~~ (f) (1).

~~(e)~~

(g) Noise Sensitivity Zones. Land-use noise sensitivity zones shall be established when requested by the Commissioner or by the governmental unit having airport zoning powers. The governmental unit having zoning powers, when required by the Commissioner, shall secure a study as to the boundaries of the area to be zoned for this purpose and the uses permitted therein.

Aero 12 ~~Public Seaplane Base~~ Licensing of a Public Seaplane Base

(a) Public Seaplane Base. A public seaplane base shall mean any seaplane base, whether privately- or publicly-owned, ~~at which any kind of commercial aviation service is available to the public or~~ the public use of which for aeronautical purposes is invited, permitted, or tolerated by the operator or the person having right of access. A public seaplane base will be granted a license when it is shown that it has met the general provisions of Aero 6 and the minimum requirements stated herein.

(b) Operation. In case the body of water to be used for landing and taking off is under the jurisdiction of any federal, state, municipal port or other authority, the operations on such body of water shall be in conformity with the marine traffic rules and regulations of such authority, if such rules and regulations do not interfere with the safe operation of aircraft.

(c) Separate Licenses. The license issued to a seaplane base shall apply to the land area from which operations are conducted and to the water area designated for its operations. Where two or more bases located on the same body of water are under different ownership or control, each base shall obtain a separate seaplane base license.

(d) Use. The use of such body of water for aeronautical purposes shall in no way impair or deny the right of the public to the use of public waters.

(e) ~~Ownership. All property used for the land operation of the seaplane base, including docks and ramps, shall be owned by the applicant, or the applicant shall show a statement in writing by the owner that he has the right to use and has control of the property for the purpose and time intended.~~ Construction or Alteration of Shoreline. The applicant shall show that any construction or alteration of shoreline on the land area of the base is in conformity with the regulations of the Minnesota Department of Natural Resources, Division of Waters, Soils and Minerals, and with municipal building and other pertinent regulations, if applicable.

(f) Size. The body of water shall have a minimum effective length of at least one mile and shall be of sufficient width and depth to permit the safe operation of aircraft on the surface. All approaches to the landing area shall be sufficiently clear of obstructions to permit a 20:1 glide angle to the nearest point of the usable landing area, provided that if any structure on the land is located within 300 feet of the centerline of the approach path, such glide angle shall be computed so as to provide a clearance of at least 100 feet above such structure. ~~All approaches to and takeoffs from the water area shall be make in such a manner as to clear all structures on the land by at least 100 feet, and wherever the area of the body of water will permit, such landings and takeoffs shall be made at a distance of not less than 300 feet, both laterally and vertically, from any boat or person on the surface of the water, or as near to 300 feet as the area of the water will permit.~~

(g) Boundary Markers. The outline of that part of the area available for landing and takeoff and for taxiing, when required in the interest of safety, shall be marked in a manner approved by the Commissioner, or as may be required by the marine traffic rules and regulations of the authority having jurisdiction.

(h) Hazards. All hazards in the approach or landing area, including underwater obstructions, shall be marked in a manner approved by the Commissioner. If the base is engaged in night operations, such hazards shall be clearly marked with lights during the period of sunset to sunrise.

(i) Wind Indicator. Each public seaplane base shall be equipped with a wind cone 3'x12', blaze orange in color, or other wind indicator approved by the Commissioner, which must be operable and clearly visible from the pattern altitude when within one mile of the seaplane base during daylight hours. If night operations are conducted at the base, the wind cone must be lighted.

(j) Minimum Public Seaplane Base Facilities. Every public seaplane base~~, in addition to the facilities required at a public airport,~~ shall have as a minimum the following facilities:

(1) Dock. A dock or float, suitable for the loading and unloading of seaplanes, shall be so located as to afford the maximum degree of safety in taxiing approach.

(2) Ramp. A ramp, or equivalent substitute, for beaching of aircraft, shall be provided. Tie-down or storage area shall be so arranged that the ramp is normally clear for the beaching of incoming aircraft.

(3) Toilets. A sanitary public toilet facility shall be provided at all public seaplane bases.

(4) Telephone. When feasible, a telephone shall be made available for public use. Telephone numbers for the appropriate Flight Service Station, for emergency assistance, and for aircraft servicing shall be prominently posted.

(5) Bulletin Board. A weather-protected bulletin board shall be prominently located on the seaplane base. Posted thereon shall be the seaplane base license, safety and traffic rules, and an area map showing danger or restricted areas.

(6) Beaching or Mooring. Beaching or mooring facilities must be provided for at least three more seaplanes than regularly use the facilities.

(k) Minimum Public Seaplane Base Safety Equipment. Every public seaplane base shall have as a minimum the following safety equipment:

(1) Life Preserver. At least one life preserver of the ring or throw type with sufficient line attached shall be available on the ramp or dock or in the emergency boat.

(2) Boat. A boat and operable motor shall be immediately available for use at all times that flights are in progress.

~~(3) When required in the interest of safety, at least one mooring anchor and buoy shall be so located that it can be approached from any direction, and it shall be located at least 150 feet from any shoreline obstructions or other objects or structures.~~

~~(4)~~ (3) Lines. An adequate supply of lines for heaving, ~~or~~ towing, securing ~~or~~ and rescue operation shall be kept available.

~~(5)~~ (4) Fuel Filters. All aviation fuel dispensed at a public seaplane base shall be filtered to be free of solid matter in excess of 5 microns particle size and to have a free water content less than 30 parts per million parts of fuel. ~~At least one fire extinguisher shall be available in the vicinity of the fuel pump or at the ramp or dock. It must be a minimum of ten pounds of carbon dioxide, or equivalent.~~

(5) Fire Extinguishers. At least one fire extinguisher shall be available in the vicinity of the fuel pump or at the ramp or dock. It must be a minimum of ten pounds of carbon dioxide, or equivalent.

~~(1) Privately owned Commercial Seaplane Base. A privately owned commercial seaplane base is a seaplane base used for commercial purposes. The persons who may use the seaplane base land area are to be determined by the owner of the base. Licensing requirements are the same as in Aero 12 b o d e f g h i.~~

Aero 12A Licensing of a Privately-owned Commercial Seaplane Base

(a) Privately-owned Commercial Seaplane Base. A privately-owned commercial seaplane base is a restricted seaplane base used for commercial purposes. The persons who may use the seaplane base land area are to be determined by the owner of the base.

(b) Requirements. A privately-owned commercial seaplane base will be granted a license when it is shown that it has met the requirements of Aero 12, (b)-(i), and (k) (1), (3), (4), (5).

(c) Use. A privately-owned commercial seaplane base may be used to satisfy the public seaplane base requirements of Aero 17.

(d) Restrictions. A privately-owned commercial seaplane base shall not be displayed on any chart for public distribution.

Aero ~~12A~~ 13 Seaplane Operations ~~on Public Waters~~ Within the Seven-County Metropolitan Area

(a) Scope. Aero ~~12A~~ 13 covers seaplane operations on all public waters within the following counties: ~~Hennepin, Ramsey, Carver, Dakota, Washington, Scott and Anoka.~~ Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington.

(b) Lakes Upon Which Seaplane Operations Are Permitted. Seaplane operations are prohibited on all public waters in the seven-county area described above except for the following bodies of water upon which seaplane operations are permitted.

Anoka County

- Centerville Lake
- Clear Lake
- Coon Lake
- George Watch Lake
- Ham Lake
- Howard Lake
- Lake George
- Linwood Lake
- Martin Lake
- Mississippi River
- Mud Lake
- Otter Lake
- Peltier Lake
- Pickerel Lake
- Reshenav Lake
- Rice Lake
- Round Lake

Carver County

- Goose Lake
- Hazeltine Lake
- Lake Minnewashta
- Lake Pattersen
- Lake Riley
- Lake Waconia
- Lundsten Lake
- Mud Lake
- Oak Lake
- Parley Lake
- Pierson Lake
- Tiger Lake

Dakota County

- Alimagnet
- Byllesby Reservoir
- Crystal Lake
- Lake Marion
- Mississippi River
- Orchard Lake
- St. Croix River

Hennepin County

- Bryant Lake
- Diamond Lake
- Eagle Lake
- Fish Lake
- French Lake
- Lake Independence
- Lake Minnetonka, except the following areas:
  - Black Lake, Emerald Lake
  - French Lake, Forest Lake
  - Gray's Bay, Libb's Lake
  - Peavy Lake, ~~St. Alban's Bay~~
  - Seton Lake, Tanager Lake
- Lake Sarah
- Medicine Lake
- Mississippi River
- Schmidt Lake
- Whaletail Lake

Ramsey County

- Bald Eagle Lake
- Lake Owasso
- Long Lake
- Mississippi River
- Turtle Lake
- White Bear Lake

Scott County

Cedar Lake
Geis Lake
Pleasant Lake
Prior Lake East
Prior Lake West
Spring Lake

Washington County

~~Big Lake~~ Big Carnelian Lake
Big Marine Lake
Forest Lake
Lake Elmo
Mississippi River
~~Onera~~ Oneka Lake
St. Croix River

(c) Further Restrictions. ~~Restrictions as to White Bear Lake, Lake Minnetonka and Lake Owasso.~~ All seaplane operations are prohibited from 11 a.m. (CDST) to 6 p.m. (CDST) on Saturdays, Sundays, and national legal holidays between June 1 and September 15 on the following public waters:

(1) Lake Minnetonka and all bays and lakes therein.
(2) White Bear Lake and all bays and lakes therein.
(3) Lake Owasso and all bays and lakes therein.

However, this restriction contained in (c) shall not apply to the holder of a Personal-use Seaplane Base License issued under Aero 16 while operating to and from his licensed base subject to the following conditions:

(1) Such operations are limited to a maximum of one takeoff and one landing during these restricted hours; and

(2) Such operations are authorized only when lake traffic and use permit such operations to be conducted in a safe and reasonable manner.

(d) Emergency Use. Nothing in Aero ~~12A~~ 13 shall be construed to prohibit the landing or taking off of a seaplane in case of a bona fide emergency.

(e) Compliance with Marine Traffic Rules and Regulations. All seaplanes must comply with marine traffic rules and regulations if such rules and regulations do not interfere with the safe operation of aircraft.

(f) Ski-Equipped Aircraft. Notwithstanding anything to the contrary stated within this Aero 13, aircraft equipped with either wheels or skis may operate on the lakes set forth in (b) above whenever such lakes are frozen if lake traffic and use permit such operations to be conducted in a safe and reasonable manner.

Aero ~~13~~ 13A Unlicensed Landing Areas

(The provisions of present Aero 13 shall appear in their entirety under Aero 13A).

Aero 14 ~~Public Heliport and Privately owned Commercial Heliport~~
Licensing of a Public Heliport

(a) Public Heliport. A Public heliport shall mean any heliport, whether privately or publicly owned, ~~on which any kind of commercial aviation service is available to the public or~~ the public use of which for aeronautical purposes is invited, permitted, or tolerated by the owner or person having right of access. A public heliport will be granted a license when it is shown that it has met the general provisions of Aero 6 and the minimum requirements stated herein.

~~(1) Takeoff and Landing Area. This area is utilized for accelerating to the safe climb out speed from either a hovering start or from a standing start in the case of a rolling takeoff. It must be of sufficient length so that a landing and stop straight ahead can be effected within the area, in the event of power failure, within the distance required to accelerate to the safe climb out speed. Adequate width must be provided to ensure a margin of safety consistent with the size of the helicopters to be operated, cross wind condition, and similar contingencies. In case of rooftop sites, the requirements set forth in this subparagraph (1) may be waived by the Commissioner of Aeronautics.~~

(b) Landing and Takeoff Area. That specific area in which the helicopter actually lands and takes off, including the touchdown area. The minimum landing and takeoff area length shall be 2.0 times the overall length of the largest helicopter expected to use the heliport, and the width of the area shall be 1.5 times the overall length of the largest helicopter expected to use the heliport.

(c) Touchdown Area. The dimensions of the touchdown area shall be equal to the rotor diameter of the largest helicopter expected to use the heliport.

(d) Peripheral Area. A peripheral area surrounding the landing and takeoff area, with a minimum width of one-quarter the overall length of the largest helicopter expected to use the heliport, but not less than 10 feet, is recommended as an obstruction-free safety zone.

~~(2) Access Paths. A public heliport must have at least two access paths. At least two of the access paths must be located that the lines bisecting them shall form an angle of not less than 90 degrees at their intersection. An access path is an obstruction free flight path in a plane leading outward and upward from a point 50 feet beyond the end of the takeoff and landing area. An access path rises vertically one foot for each eight feet horizontally. If the access path is curved, its centerline must have a turning radius of not less than 600 feet. In width, the access path flares out from the width of the landing area to a maximum width of 1,000 feet. The angle of the flare is 10 degrees on each side.~~

(e) Obstructions. Criteria for determining obstructions to public heliports are set forth in Aero 9 (f).

(f) Approach-Departure Paths. Approach-departure paths are selected to provide the most advantageous lines of flight to and from the landing and takeoff area. These paths begin at the edge of the landing and takeoff area and should be aligned as directly as possible into the prevailing winds.

(1) Approach-departure paths coincide in size with the imaginary surfaces described in Aero 9 (f), except that an approach-departure path may be curved.

(aa) If the approach-departure path is curved, its centerline must have a turning radius of not less than 700 feet.

(bb) If the approach-departure path is curved, the curved portion of the path must begin at a distance not less than 300 feet from the landing and takeoff area.

(2) A public heliport must have at least two approach-departure paths which must be separated by an arc of at least 90 degrees. These two paths must be obstruction-free.

(3) Emergency landing areas must be available along the approach-departure paths.

~~(3) Approach Area. The area beneath the access paths must permit emergency landings in case of engine failure without serious damage to helicopter occupants or persons or property below.~~

~~(4)~~ (g) Fuel Filters. All aviation fuel dispensed on any public heliport shall be filtered to be free of solid matter in excess of 5 microns particle size and to have a free water content of less than 30 parts per million parts of fuel. ~~At least one fire extinguisher shall be available whether or not fuel is dispensed on the site. It must be a minimum of ten pounds of carbon dioxide or equivalent.~~

(h) Fire Extinguishers. At least one fire extinguisher shall be available. It must be a minimum of ten pounds of carbon dioxide or its equivalent.

~~(5)~~ (i) Wind Indicator. All public heliports shall be equipped with a wind cone which must be clearly visible from pattern altitude.

~~(6) To afford adequate protection to the public, a fence or barricade or other adequate safety precautions shall be required around the takeoff and landing area to keep the public from the operational area or the landing pad shall be elevated sufficiently to provide a 6'6" vertical clearance from the low edge of the tail rotor arc to the ground.~~

(j) Safety Barriers. Access to the landing and takeoff area and the peripheral area, if any, shall be fenced or protected to keep unauthorized persons out of these areas. If a fence is used, it shall not penetrate the heliport imaginary surfaces described in Aero 9 (f).

(k) Rooftop Egress. Rooftop heliports should have two exits, one at each side of the landing and takeoff area, which should be provided in accordance with local building codes.

(l) Applicability. The regulations contained in Aero 14, (d), (e), and (f) are predicated upon VFR operations by helicopters certificated in the normal category. The Commissioner may set additional requirements for heliports which will conduct IFR operations and/or operations by transport category helicopters.

~~(b) Privately-owned Commercial Heliport. A privately-owned commercial heliport is a heliport used for commercial purposes. The persons who may use the heliport are to be determined by the owner of the heliport. The privately-owned commercial heliport must meet the standards of Aero 14.~~

Aero 14A Licensing of a Privately-owned Commercial Heliport

(a) Privately-owned Commercial Heliport. A privately-owned commercial heliport is a restricted heliport used for commercial purposes. The persons who may use the heliport are to be determined by the owner of the heliport.

(b) Requirements. A privately-owned commercial heliport will be granted a license when it is shown that it has met the requirements of Aero 14.

(c) Use. A privately-owned commercial heliport may be used to satisfy the public airport requirements of Aero 17.

(d) Restrictions. A privately-owned commercial heliport shall not be displayed on any chart for public distribution.

Aero 16 Licensing of Personal-use Landing Areas

(a) Personal-use Landing Area. A personal-use landing area shall mean any area on land or water on which aircraft are, or will be, ~~stored or~~ regularly based or regularly operated from. ~~and/or from which aircraft can be operated. If an applicant meets the qualifications set forth in Aero 16 for a personal-use landing area, he may be granted one of the following three licenses for that site, whichever is applicable.~~ A license of one of the three types listed below will be granted when it is shown that it has met the general provisions of Aero 6 and the minimum requirements stated herein.

(1) Personal-use Airport ~~Landing Field~~ License
(2) Personal-use ~~Heliport~~ Seaplane Base License
(3) Personal-use ~~Seaplane Base~~ Heliport License

~~(b) Requirements for a License for a Personal-use Landing Area.~~

(b) ~~(1)~~ Hazards. A personal-use landing area shall not impose undue hazards upon adjoining property or its occupants or endanger the users or use of existing surface communication or transportation.

(c) ~~(2)~~ Operation. A personal-use landing area shall not interfere with the safe operation of any public airport or with the safety of any ~~state or~~ federal airway.

~~(3) Use. A personal-use landing area shall not be held out as available for public use or caused or be authorized to be displayed on any chart for public distribution.~~

~~(4) Noncommercial Uses. A personal-use landing area shall not be used for any commercial purposes except for aerial spraying and dusting, which activities may be conducted from a personal-use landing area.~~

(d) Restrictions. A personal-use landing area shall not be operated except in accordance with the restrictions set forth below.

(1) A personal-use landing area shall not be held out as available for public use, nor shall the public use of a personal-use landing area be invited, permitted, or tolerated.

(2) A personal-use landing area shall not be used as a base of operations for any commercial purposes except for aerial spraying and dusting.

(3) A personal-use landing area shall not be displayed on any chart for public distribution.

(e) Size. A personal-use landing area shall be of sufficient length and width and the approaches shall be sufficiently clear of obstructions to permit safe operations by the aircraft intended to use it.

~~(b)--(5)-Each-personal-use-landing-area-must-have-a-license of-one-of-the-types-described-above.~~

~~(c)-Personal-use-Landing-Area-License.--If-the-applicant desires-a-license-for-a-personal-use-landing-area-on-land,-then he-shall,-if-the-site-meets-the-specifications-set-forth-herein, be-granted-a-personal-use-landing-field-license-for-that-site.~~

~~(d)-Personal-use-Heliport-License.--A-personal-use-landing area-for-the-exclusive-use-of-helicopters-shall-be-licensed-as-a personal-use-heliport.--In-addition,-a-personal-use-heliport-must meet-the-standards-set-forth-in-Aero-14-(a)-(1)-and-(3)-and-shall have-at-least-one-access-path-meeting-the-standards-of-Aero-14-(a) (2).--The-site-must-also-meet-the-above-requirements-set-forth-in Aero-16.~~

(f) ~~(e)~~ Personal-use Seaplane Base License. A personal-use seaplane base license shall apply to the land area from which operations are conducted and to the water area designated for its operation. ~~When-two-or-more-bases-located-on-the-same-body-of water-are-under-different-ownership-or-control,-each-base-shall obtain-a-separate-personal-use-seaplane-base-license.--The-site must-also-meet-the-above-requirements-as-set-forth-in-Aero-16.~~

(1) When two or more bases located on the same body of water are under different ownership or control, each base shall obtain a separate personal-use seaplane base license.

(2) A personal-use seaplane base license will not be granted for those lakes upon which seaplane operations are prohibited by Aero 13.

(g) Personal-use Heliport License. In addition to the above requirements, a personal-use heliport must meet the requirements listed below.

(1) Aero 14 (b), except that the landing and takeoff area minimum length and width shall be 1.5 times the overall length of the helicopter expected to use the heliport.

(2) Aero 14 (c),(d).

(3) Aero 14 (f), except that a personal-use heliport must have as a minimum one approach-departure path meeting those requirements.

(4) Safety Barrier. Access to the landing and takeoff area and the peripheral area, if any, shall be fenced or protected to keep unauthorized persons out of these areas.

CHAPTER THREE: AERO 17-27

Aero 17 General Commercial Operations Regulations

(a) Commercial Operations. "Commercial Operations" means any operations of an aircraft for compensation or hire; or any services performed incidental to the operation of any aircraft for which a fee is charged or compensation received, including but not limited to, the servicing, maintaining and repairing of aircraft, the rental or charter of aircraft, the operation of flight or ground schools, the operation of aircraft for the application or distribution of chemicals or other substances, aerial photography and surveys, air shows or expositions, parachute jumping, and the operation of aircraft for fishing. "Commercial Operations" also means brokering or selling of any of the aforesaid services but does not include any operations of aircraft as common carriers certificated by the federal government or the services incidental thereto ~~(Minnesota Statutes 1957, Section 360.013, Subd. 11)~~.

(b) License. Every person who does in fact provide or who advertises, represents or holds himself out as giving or offering to provide such service, ~~as described in Minnesota Statutes 1957, Section 360.013, Subdivision 11,~~ must be licensed by the Commissioner of Aeronautics. The license shall contain endorsements showing the type or types of commercial operations the licensee is authorized to perform. Such person must be licensed by the Commissioner before he advertises, represents or holds himself out as giving or offering to provide such service or services.

(c) Application. Application for license shall be made on forms supplied by the Commissioner of Aeronautics.

(d) Fee. The fee shall be $10.00 annually and must accompany the application.

(e) Duration and Renewal. The license issued under this section shall be effective for one year from the date of issuance thereof and shall be renewed annually. Application for renewal shall be made 30 days before the expiration of the current license.

(f) Nontransferability. The license shall not be transferable to other persons.

(g) Display. The license issued under this section shall be posted in a prominent place in the office of the licensee.

(h) Notice of Change. The licensee shall immediately notify the Department of Aeronautics in writing of any change in the status of such commercial operation relating to ownership, activities, aircraft or key personnel.

(i) Report of Accidents. Each licensee shall be responsible for reporting all accidents which occur while aircraft are being operated in connection with his operation and involve any of the following conditions.

(1) An accident which results in serious injury or death to an occupant of an aircraft, or to any person by direct contact with the aircraft.

(2) An accident which occurs as the result of a violation of the Rules and Regulations of the Commissioner or of the Federal Aviation Administration.

(3) An accident which results in substantial damage to an aircraft. "Substantial damage" as used herein is defined as follows:

aa) Except as provided in subparagraph (bb) of this paragraph, substantial damage means damage or structural failure which adversely affects the

structural strength, performance or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component.

(bb) Engine failure, damage limited to an engine, bent fairings or cowling, dented skin, small punctured holes in the skin or fabric, ground damage to rotor or propeller blades. Damage to landing gear wheels, tires, flaps, engine accessories, brakes, or wing tips are not considered "substantial damage" for the purpose of this part.

Reports of all accidents shall be made on NTSB Form 6120, and in addition to such report, the operator shall give immediate notice to the Commissioner by telephone or telegraph of any accident involving death to any person.

(j) Place of Business

(1) Each applicant for a commercial operations license must have a place of business.

(2) In addition, if the commercial activity includes the operation of aircraft, then such applicant's base of operation must be on a public airport or public seaplane base licensed by the Commissioner as provided by law, or an airport owned by the Metropolitan Airports Commission, except when such commercial operation is limited to:

(aa) Spraying and dusting.

(bb) The exclusive lease of the aircraft involved for a period of more than 30 days by a person who is not a commercial operator to a person who is not a commercial operator.

If the applicant does not own the airport or seaplane base he must submit evidence from the owner or municipality that he meets the airport owner's minimum standards for such commercial operation and is authorized to operate from such airport.

(k) Aircraft. Each aircraft used by a licensee for commercial operation shall possess a currently valid certificate of airworthiness as issued by the Federal Aviation Administration, shall be continually maintained in an airworthy condition, and shall be currently registered with the Department of Aeronautics, or be taxed as flight property by the Department of Revenue, as required by the laws of this state. Such flight property tax payments must be current.

(l) Airmen. Each airman engaged in commercial operations or employed by the commercial operator shall hold a currently valid airman's certificate, as issued by the Federal Aviation Administration, together with the appropriate ratings for the type of equipment to be operated or the kind of activity taking place.

(m) Records. Each licensed commercial operator shall maintain, at the base of operations, basic records which must be kept up to date as follows:

(1) Each flight made in equipment owned by a licensee shall be recorded. The register shall show the pilot's name, identification of the aircraft, and the date, time and duration of the flight. ~~and the pilot's name.~~

(2) An accurate list of airman personnel employed by the commercial operator, together with the airman certificate type, number of ratings, address, and where necessary, date of last physical examination.

(3) A list of aircraft used in the commercial operation and the current Minnesota Department of Aeronautics registration decal number and annual

maintenance inspection date of each aircraft.

~~(n) Hangar. Persons engaged in commercial operations involving the operation of aircraft shall have hangar facilities, either owned or available for the type of operation involved, and such aircraft shall be properly hangared, or in lieu thereof, other facilities or methods of avoiding the hazards which arise from the exposure of unhangared aircraft to weather shall be available.~~

~~(o)~~ (n) Compliance with the Law. A person engaged in commercial operations shall comply with all laws of the State of Minnesota and the Rules and Regulations promulgated by any state department or agency.

~~(p)~~ (o) Cooperation. The applicant for a commercial operations license shall offer full cooperation in respect to any inspection which may be made of his operation upon proper demand at reasonable hours by the Commissioner or any authorized representative of the Commissioner prior to or subsequent to the issuance of a license.

~~(q)~~ (p) Shared-expense flights. Part 61.118 of the Federal Aviation Regulations shall apply as rules of this department in determining whether or not a shared-expense flight is a commercial operation.

~~(r)~~ (q) Leasing

(1) Any person who owns an aircraft and leases or rents that aircraft to a person not holding a commercial operations license under Chapter 3 is required to obtain a commercial operations license under these rules.

(2) However, no commercial operations license shall be required of a person who owns his own aircraft and leases or rents his aircraft to a party who holds a commercial operations license.

(r) Aircraft Maintenance. An applicant whose commercial activity includes the operation of an aircraft and who is also not licensed to perform aircraft servicing, maintaining, and repairing must have a contract or agreement with a commercial operator licensed to perform these services for all aircraft used in the commercial activity.

(s) Endorsements. To receive an endorsement to a commercial operations license, the applicant must meet and comply with the requirements of Aero 17, unless specifically excepted therefrom, and the appropriate Aero Regulation for the type or types of commercial operations applied for.

(t) Telephone. Each applicant for a commercial operations license must have a telephone located at his place of business.

(u) Insurance. The applicant for a commercial operations license must hold insurance contracts valid and in force for the duration of the license which provide coverage for each accident in the types and amounts as specified in the appropriate Aero Regulation for the type or types of commercial operations applied for.

The applicant shall ensure that the insurance company or companies which hold the insurance contracts is authorized by the Insurance Commissioner to do business in the State of Minnesota.

Any contract of insurance to be approved by the Commissioner shall carry an endorsement stating that such contract cannot be canceled by the insurer until after five days' notice in writing of such cancellation has been given the Commissioner by the insurer. In any case where an insurance contract is canceled by the insured, notice of such cancellation shall immediately thereafter be given to the Commissioner by the insurer.

Aero 18 Flight School

(a) Flight School. Any person engaged in giving or offering to give dual flight time, instruction or flight time leading to a pilot's certificate or rating, or engaged in selling or giving solo flight time to persons holding less than a private pilot's certificate, for hire or reward, or advertising, representing, or holding himself out as giving or offering to give such instruction, shall be considered to be operating a flight school, except:

(1) Company Instruction. A company engaged in flight operation giving instruction to its own employees in furtherance of their duties in conjunction with such operation activity.

(2) Public Schools. Any public school, the University of Minnesota, or any institution of higher learning accredited by the North Central Association of Colleges and Secondary Schools and approved by it for carrying on collegiate work.

(3) Aeronautics Instructor. Any individual engaged in giving instruction, or offering to give instruction, in aeronautics either in flying or ground subjects, or both, for hire or reward, without advertising such occupation, without calling facilities an "air school" or anything equivalent thereto, without employing or using other instructors, and without using his own aircraft.

(b) Minimum Requirements. To be eligible for a flight school endorsement, an applicant shall show compliance with the following minimum requirements:

(1) Records and Office. The school operator shall keep and maintain complete and adequate records in addition to the students' logbooks of the flight instruction given to all regularly enrolled students, showing the ~~time and~~ date, the amount of dual or solo instruction, the maneuvers given, the aircraft used and the name of the instructor of each dual flight. These records shall be available for inspection at the flight school office and shall be retained

for at least one year from the date of the last entry. The flight school operator shall show that he has an office of adequate size and containing the necessary facilities and equipment, ~~including a telephone,~~ for the operation of the school. ~~It shall have a bulletin board on which shall be displayed all required notices, traffic patterns, flight rules, and other data necessary for the operation of a school.~~

~~(2) If the applicant is not licensed to perform aircraft servicing, maintaining and repairing, he must show a contract or agreement with a commercial operator licened to perform this service for all aircraft used in the flight school. A copy must be attached to the application.~~

~~(c)~~ (2) Curriculum. The applicant must show to the satisfaction of the Commissioner ~~a curriculum~~ a course outline or FAA Flight Training Handbook so organized for each course offered as to ensure that the student ~~sucessfully~~ completing the course of ground and flight instruction will meet all the requirements of FAR Part 61. ~~will qualify for the certificate or rating sought.~~ In the case of an FAA approved school, the FAA ~~curriculum~~ course outline will be acceptable. The flight instruction given to each regularly enrolled student shall be in accordance with such ~~curriculum~~ course outline, a copy of which shall be made available to each student.

~~(d)~~ (3) Rules and Regulations. The flight school operator shall establish and enforce the rules and regulations which shall govern his flight school operation, including rules relating to the traffic pattern, practice areas, taxi rules, flight rules, and other safety procedures. These rules and regulations and a diagram thereof shall be prominently posted on a bulletin board at the ~~airport~~ flight school along with the required notices and other data necessary for the operation of the school. ~~and a~~ A copy of the rules and regulations shall be submitted with the application.

~~(e) Requirements for First Solo. The school operator shall not authorize or permit any student to solo an aircraft until he has had a minimum of 8 hours of dual instruction.~~

~~(f)~~ (4) Insurance. ~~The applicant for a flight school endorsement on a commercial operations license must hold insurance contracts valid and in force for the duration of the license which provide~~ The minimum insurance coverage for each accident shall be the following types and amounts: ~~with a reliable insurance company, or companies, authorized by the Insurance Commissioner to do business in the State of Minnesota.~~

~~(1)~~ (aa) ~~$50,000~~ $75,000 per passenger seat for passenger liability. ~~to include the solo student.~~

~~(2)~~ (bb) ~~$50,000~~ $100,000 per person and ~~$150,000~~ $300,000 per ~~accident~~ occurrence for bodily injury, excluding passengers. ~~minimum for aircraft, public liability for bodily injury.~~

~~(3)~~ (cc) ~~$50,000~~ $100,000 per plane for property damage.

~~Any contract of insurance to be approved by the Commissioner shall carry an endorsement stating that such contract cannot be canceled by the insurer until after five days' notice in writing of such cancellation has been given to the Commission by the insurer. In any case where an insurance contract is canceled by the insured, notice of such cancellation shall immediately thereafter be given the Commissioner by the insurer.~~

~~(g)~~ (5) Faithful Performance Bond Covering Students. The applicant must file with the Commissioner of Aeronautics ~~of the State of Minnesota~~ a continuous corporate surety bond to the State of Minnesota in the sum of $5,000 conditioned for the faithful performance of all contracts and agreements with students made by such person, firm, association or corporation, or their salesmen. The

aggregate liability for the surety for all breaches of conditions of the bond in no event shall exceed the principal sum of $5,000. The surety of any such bond may cancel such bond upon giving sixty days' notice in writing to the Commissioner of Aeronautics ~~of the State of Minnesota~~ and thereafter the surety shall be relieved of liability for any breach of conditions occurring after the effective date of cancellation, provided, however, that whenever a bond under this section ceases to be in effect for any reason, the flight school license shall be revoked. The bond form shall be provided by the Commissioner. ~~of Aeronauties.~~ A copy of the executed bond certificate will be attached to the application. ~~This section (g) shall become effective on November 1, 1969.~~

(c) The applicant must meet the requirements of Aero 17.

Aero 19 Ground School and Aeronautical Correspondence School

Aero 19 (b) (5) shall be amended as follows:

(5) The applicant must have at least one ~~qualified~~ FAA certificated flight or ground instructor ~~(authorized instructor)~~ to certify training reports.

Aero 20 ~~Approved Schools~~ Reserved for Future Use.

The provisions of Aero 20 as they presently exist shall be deleted in their entirety and reserved for future use.

Aero 21 Aircraft Charter

(a) Endorsement for Charter Operations. Any person engaged in flying persons or property from place to place, or offering to provide such service for hire or reward, who does not hold a certificate of public convenience and necessity from the Civil Aeronautics Board or its successor, or who does not hold a license as a commuter air carrier under Aero 26, shall be deemed to be engaged in a charter operation and shall have an endorsement on his commercial operations license to certify to his authority to engage in charter operations.

(b) ATCO Certificate. The applicant shall be the holder of an air taxi/commercial operator certificate with operating specifications as issued by the Federal Aviation Administration, and ~~if required,~~ a valid letter of registration from the Civil Aeronautics Board. A copy of this certificate with operating specifications shall be attached to the application.

~~(c) The applicant must show that he has an office of adequate size on an airport which contains the necessary facilities and equipment, including a telephone.~~

~~(d) If the applicant is not licensed to perform aircraft servicing, maintaining and repairing, he must show a contract or agreement with a commercial operator licensed to perform this service for all aircraft used in his charter operation. A copy of the contract or agreement must be attached to the application.~~

~~(e)~~ (c) Insurance. ~~The applicant for a charter endorsement on a commercial operations license must hold insurance contracts valid and in force for the duration of the license which provide~~ The minimum insurance coverage for each accident shall be ~~in~~ the ~~following~~ types and amounts, ~~with a reliable insurance company or companies, authorized by the Insurance Commissioner to do business in the State of Minnesota:~~ as specified by the Civil Aeronautics Board.

~~(1) $50,000 minimum per passenger seat for passenger liability.~~

~~(2) $50,000 per person and $150,000 per accident minimum for aircraft, public liability for bodily injury.~~

~~(3) $50,000 minimum per plane for property damage.~~

~~Any contract of insurance to be approved by the Commissioner shall carry an endorsement stating that such contract cannot be canceled by the insurer until after five days' notice in writing of such cancellation has been given the Commissioner by the insurer. In any case where an insurance contract is canceled by the insured, notice of such cancellation shall immediately thereafter be given the Commissioner by the insurer.~~

~~(f)~~ (d) The applicant must meet the requirements of Aero 17.

Aero 22 Aircraft Rental or Leasing

(a) Endorsement for Aircraft Rental or Leasing. Any person renting or leasing aircraft or offering to rent or lease aircraft for hire or reward shall be deemed to be in the business of renting or leasing aircraft and must have an endorsement on his commercial operations license certifying his authority to engage in such activity.

(b) Records. The holder of a commercial operations license with an aircraft rental or lease endorsement shall keep and maintain a complete and adequate set of records to show the following.

(1) The name of the pilot renting or leasing an aircraft.

(2) The identification of the aircraft rented or leased.

(3) The date, time, and duration of the flight for which the aircraft was rented or leased.

(c) Qualifications of Lessee. The commercial operator shall determine before initially renting or leasing any aircraft that the lessee thereof is properly licensed and rated to fly the type of aircraft to be rented or leased~~, and~~. When in the interest of safety, the operator ~~shall determine if~~ determines that a flight check is necessary or desirable, such flight shall be given the lessee by a person holding an effective commercial ~~pilot's rating or~~ pilot, flight instructor, or airline transport pilot certificate. ~~Such commercial pilot or instructor must be present when an aircraft is checked out, or someone capable of determining that the aircraft is properly serviced.~~ The commercial operator shall assure that a designated person capable of determining that an aircraft is properly serviced is present when an aircraft is checked out.

~~(d) Maintenance. If the applicant is not licensed to perform aircraft servicing, maintaining and repairing, he must show a contract or agreement with a commercial operator licensed to perform this service for all aircraft used in the rental operation. A copy of the contract or agreement must be attached to the application.~~

~~(e)~~ (d) Insurance. ~~The applicant for a rental or lease endorsement on his commercial operations license must hold insurance contract valid and in force for the duration of the license which provide~~ The minimum insurance coverage for each accident shall be ~~in~~ of the following types and amounts:

(1) ~~$50,000~~ $75,000 ~~minimum~~ per passenger seat for passenger liability.

(2) ~~$50,000~~ $100,000 per person and ~~$150,000~~ $300,000 per ~~accident~~ occurrence for bodily injury, excluding passengers. ~~minimum for aircraft, public liability for bodily injury.~~

(3) ~~$50,000~~ $100,000 ~~minimum~~ per pland for property damage.

~~Any contract of insurance to be approved by the Commissioner shall carry an endorsement stating that such contract cannot be canceled by the insurer until after five days' notice in writing of such cancellation has been given the Commissioner by the insurer. In any case where an insurance contract is canceled by the insured, notice of such cancellation shall immediately thereafter be given the Commissioner by the insurer.~~

~~(f)~~ (e) The applicant must meet the requirements in Aero 17.

Aero 23 Air Ambulance Service

(a) Endorsement for Air Ambulance Service. Any person engaged in flying ambulance stretcher cases from place to place, or offering to provide such service for hire or reward, shall be deemed to be engaged in air ambulance service and shall have an endorsement on his commercial operations license certifying his authority to engage in air ambulance service.

(b) Aircraft. Each aircraft to be used as an ambulance for the purpose of transporting stretcher cases shall have ample area to accommodate a regulation ambulance cot or aircraft ambulance stretcher in a horizontal position, and shall be so designed as to permit loading without excessive tilting. The aircraft shall be equipped with at least one safety belt for securing the person and cot or stretcher to the aircraft.

~~(c) Maintenance. If the applicant is not licensed to perform aircraft servicing, maintaining and repairing, he must show a contract or agreement with a commercial operator licensed to perform this service for all aircraft used in his air ambulance service. A copy of the contract or agreement must be attached to the application.~~

(c) Department of Health Certificate. The air ambulance service shall be the holder of a current authorized air ambulance service certificate with specifications for nonemergency or emergency service, or both, issued by the Minnesota Department of Health. A copy of the certificate shall be attached to the application.

(d) Insurance. ~~The applicant for an air ambulance service endorsement on a commercial operations license must hold insurance contracts valid and in force for the duration of the license which provide~~ The minimum insurance coverage for each accident shall be ~~in~~ the ~~following~~ types and amounts ~~with a reliable insurance company, or companies, authorized by the Insurance Commissioner to do business in the State of Minnesota:~~ as specified by the Civil Aeronautics Board.

(e) Transportation of Dead Human Bodies. The provisions contained in this section shall also apply to the transportation of dead human bodies by airplane, and such bodies shall be transported on the type of cot or stretcher described in Aero 23 (b).

(f) ~~Air Ambulance Service.~~ Air Taxi/Commercial Operator Certificate. The air ambulance service shall be the holder of an air taxi/commercial operator certificate with operating specifications as issued by the Federal Aviation Administration, and ~~if required,~~ a letter of registration from the Civil Aeronautics Board. A copy of this certificate with operating specifications shall be attached to the application.

(g) The applicant must meet the requirements of Aero 17.

Aero 24 Aerial Spraying or Dusting

(a) Aircraft Spraying or Dusting. Any person applying or offering to apply chemicals or other substances from an aircraft shall be deemed to be engaged in aerial spraying or dusting.

(b) ~~Endorsement.~~ Emergency Provision. ~~Before any person may engage in aerial spraying or dusting for hire or reward, he shall first obtain an endorsement on his commercial operations license certifying his authority to engage in such activity. This section shall not apply to pilots employed by commercial operations licensees.~~ If the Governor declares an emergency to exist with respect to crop conditions, the Commissioner of Aeronautics may authorize variances from ~~this section~~ the aero regulations.

(c) Spraying or Dusting Pilots. Each commercial operations licensee authorized to engage in aerial spraying or dusting shall complete pilot qualification forms furnished by the Department for each person engaged in piloting aircraft in the licensee's spraying or dusting operation. These forms shall be forwarded to the Department of Aeronautics. If the pilots' qualifications meet the minimum qualifications prescribed by these regulations, certificates will be prepared and forwarded, certifying that the pilots are authorized to engage in aerial spraying or dusting in the licensee's operation. These certificates shall be in actual possession of the pilots at all times when engaged in aerial spraying or dusting in this state.

(d) Department of Agriculture Recommendation. No endorsement authorizing a commercial operator to engage in aerial spraying or dusting will be issued and no pilot will be certified as being qualified to do aerial spraying or dusting unless the Department of Agriculture recommends approval of such endorsement or certificate.

(e) Aircraft and Pilot Safety Equipment. Every aircraft used for aerial spraying or dusting in this state shall be provided with a positive method of shutting off distribution of chemicals or other substances which shall prevent material from leaking or dropping except over the areas of intended application. Every aircraft shall also be equipped with quick-detachable safety belt and shoulder harness. Each pilot shall wear protective headgear during such flight operation.

(f) Pilot's Special Qualifications. Each pilot engaging in aerial spraying or dusting shall, in addition to possessing a commercial ~~pilot~~'s or airline transport pilot's certificate, meet the requirements of subsection (1) below, as well as one of the other subsections set forth below:

(1) ~~1,000 hours flying time; or~~ 10 hours of flying time in the preceding six months in the make and model of aircraft to be used; ~~or~~ and

(2) 30 hours of actual aerial application or distribution of chemicals or other substances; or

(3) ~~5~~ 10 hours of simulated crop spraying or dusting under the supervision of a pilot with a commercial ~~rating~~ or airline transport pilot certificate and a minimum of one year's crop spraying or dusting experience and the recommendation of such pilot who supervised the simulated training; or

(4) 5 hours of dual instruction in crop spraying or dusting, such dual to be given by a pilot with ~~commercial and~~ an instructor ~~ratings~~ rating, who has a minimum of one year's spraying or dusting experience, and the recommendation of such pilot who gave such dual instruction; ~~and~~.

~~(5) 10 hours of flying time in the preceding six months in the type of aircraft to be used.~~

(g) Nonresident Applicant. Every nonresident commercial operation applicant shall give his permanent address and the name of the airport from which his operations are conducted in his resident state.

~~(h) Aircraft and Pilot Safety Equipment. Every aircraft used in spraying or dusting shall be equipped with quick detachable safety belt and a quick detachable harness, and each pilot shall wear a protective headgear during such flight operation.~~

~~(i)~~ (h) Aircraft. In the application, the aerial applicator must inform the Commissioner of all aircraft ~~(~~ by factory make, model, year and "N" number ~~)~~ that the aerial applicator intends to use within the state.

(i) Certificate. The applicant shall be the holder of a commercial agricultural aircraft operator certificate. A copy of this certificate with amendments shall be attached to the application.

(j) Insurance. The minimum insurance coverage for each accident shall be the following types and amounts:

(1) $100,000 per person and $300,000 per occurrence for bodily injury, excluding passengers.

(2) $100,000 per plane for property damage, excluding chemical drift.

~~(j)~~ (k) The applicant must meet the requirements of Aero 17 unless specifically excepted therefrom.

Aero 25 Aircraft Servicing, Maintaining and Repairing

~~(a) Shop and Maintenance Facilities. The applicant shall show available shop and maintenance facilities, equipment and qualified personnel sufficient to maintain aircraft, the repair of which is undertaken. As used herein, "shop" shall mean a building or portion of a building of adequate size to completely enclose at least one fully assembled aircraft with sufficient space to work on the aircraft. The shop shall be properly heated, lighted, and ventilated, and shall have floor of substantial construction. Adequate fire protection equipment shall be provided and at least one outward swinging exit door for personnel shall be available. The shop shall be equipped with all commonly used tools and equipment for the servicing of aircraft. At least one licensed "A & P" mechanic or one "A" mechanic and one "P" mechanic shall be employed, together with additional personnel as may be necessary.~~

(a) Aircraft Servicing, Maintaining, and Repairing. Any person providing or offering to provide aircraft maintenance (as defined in FAR Part 1), major or minor repair or alteration to airframes or aircraft power plants or both, shall be deemed to be engaged in the business of aircraft servicing, maintaining and repairing, and shall have a commercial operations license with an endorsement to certify his authority to engage in aircraft servicing, maintaining and repairing.

~~(b) A fully charged fire extinguisher, a minimum of ten pounds of carbon dioxide, or equivalent, shall be kept available in each shop in which aircraft or component parts thereof are customarily repaired.~~

(b) Requirements. To be eligible for an aircraft servicing, maintaining and repairing endorsement, the applicant shall show an available shop maintenance facility, whether owned or leased, which meets the following standards:

(1) A building or portion of a building located on a public or private-commercial airport, of adequate size to completely enclose at least one fully assembled aircraft with sufficient space to work on the aircraft.

(2) Adquate fire protection equipment to meet the standards of the local fire marshal's office, but not less than less than one outward swinging personnel exit door and one fully charged fire extinguisher with a minimum of ten pounds of carbon dioxide or its equivalent.

(3) At least one "A & P" mechanic or one "A" mechanic and one "P" mechanic shall be employed.

(c) Insurance. The minimum insurance coverage for each accident shall be of the following types and amounts:

(1) $100,000 per person and $300,000 per accident for premise hazard for bodily injury.

(2) $100,000 per accident for premise hazard for property damage.

(3) Products hazard insurance shall be carried.

~~(c)~~ (d) The applicant must meet the requirement of Aero 17.

(a) Any person offering to provide scheduled air transportation in this state must obtain a commercial operations license and a scheduled air carrier certificate of registration from the Commissioner of Aeronautics before engaging in such activity, and annually thereafter.

(b) As used in these rules, "air carrier" means that person owning, controlling, operating or managing aircraft as a common carrier of either persons or property, or both, for compensation on regularly scheduled flights.

(c) These regulations do not apply to that portion of an air carrier's operations in this state which is conducted between points named in a then-current certificate of public convenience and necessity issued by the Civil Aeronautics Board, or its successor.

(d) No air carrier shall operate aircraft on regularly-scheduled flights except in accordance with the provisions of these regulations.

~~(e)--To-obtain-the-commercial-operations-license-and-the-certificate-of registration,-the-following-are-minimum-requirements-which-must-be-met-by-the-air-carrier.--Application-shall-be-on-forms-supplied-by-the-Commissioner-of Aeronautics.~~

(e) ~~(f)~~ Requirements. Any person requesting an endorsement to certify his authority to engage in commuter air carrier service on his commercial operations license must meet the following minimum requirements:

~~(f)~~ (1) ATCO Certificate. The commuter air carrier shall be the holder of an air taxi/commercial operator certificate with operation specifications as issued by the Federal Aviation Administration, and ~~if-required,~~ a letter of registration from the Civil Aeronautics Board. A copy of this certificate with operating specifications shall be attached to the application.

~~(g)~~ (2) Use Agreements. A copy of current use agreements with owners of each airport to be served in the state shall be attached to the application. ~~This~~ Each agreement shall set forth what facilities will be used on the airport.

~~(h)~~ (3) Faithful Performance Bond. Covering advance ticket sales.

(aa) The commuter air carrier must file with the Commissioner of Aeronautics ~~of-the-state-of-Minnesota,~~ on a form provided by him, a fully executed copy of a continuous corporate surety bond to the State of Minnesota in the sum of $10,000 conditioned upon the refund of all unperformed advance ticket sales to passengers made by such commuter air carrier or his agents. The aggregate liability for the surety of all breaches of the conditions of the bond in no event shall exceed the principal sum of $10,000. The surety on such bond may cance such bond upon giving sixty days' notice in writing to the Commissioner of Aeronautics ~~of-the-State-of-Minnesota~~, and thereafter the surety shall be relieved of the liability for any breach of conditions occurring after the effective date of cancellation. ~~provided,-however,-that~~ Whenever a bond under this section ceases to be in effect for any reason, ~~said-certificate-of-registration~~ the commercial operations license shall be revoked.

~~The-bond-form-shall-be-provided-by-the-Commissioner-of-Aeronautics.--A-copy-of-the-executed-bond-certificate-will-be-attached-to the-application.~~

(bb) The bond shall not enlarge upon or alter in any way the ticket contract between the commuter air carrier and its customers.

~~(i)~~ (4) Aircraft. In the application, the commuter air carrier must inform the Commissioner of all aircraft (by factory make, model, and "N" number) that the commuter air carrier intends to use within the state.

~~(j)~~ (5) Schedules and Rates. The commuter air carrier must submit a copy of its proposed schedules and its proposed passenger and freight rates with each application. No schedule or rate change shall be made without notifying the Commissioner of Aeronautics as to such change at least ten days before such change is to go into effect.

~~(k)~~ (6) The commuter air carrier shall file with the Commissioner of Aeronautics a copy of all reports which it files with the Civil Aeronautics Board or its successor agencies, such filing to be done within ten days after such reports are filed with said agencies.

(f)~~(g)~~ Insurance. The minimum insurance coverage for each accident shall be the types and amounts as specified by the Civil Aeronautics Board.

~~(i)--Compliance with the law.--A person engaged in commercial operations as a scheduled air carrier shall comply with the laws of the State of Minnesota and the Rules and Regulations promulgated by any state department or agency and the Federal Government.~~

~~(m)--Nontransferability.--The license and the certificate shall not be transferable to other persons.~~

Aero 33 General Flight Rules

Aero 33 (f) shall be amended as follows:

(f) Proximity of aircraft. No person shall operate an aircraft in such proximity to other aircraft as to create a collision hazard. No person shall operate an aircraft in formation flight when passengers are carried for hire, except when it is required for parachuting operations. No aircraft shall be operated in formation flight except by prearrangement between the pilots in command of such aircraft.

Aero 33 (k) shall be amended by adding a subdivision as follows:

(5) All approaches to and take-offs from the water area shall be made in such a manner as to clear all structures on the land by at least 100 feet, and wherever the area of the body of water will permit, such landing and take-offs shall be made at a distance of not less than 300 feet, both laterally and vertically, from any boat or person on the surface of the water, or as near to 300 feet as the area of the water will permit.

APPROVED AS TO FORM AND LEGALITY

_____ 19____

WARREN SPANNAUS, ATTORNEY GENERAL

BY_____

SPECIAL ASSISTANT ATTORNEY GENERAL

Aero 36 Safety Regulations for Parachuting

Aero 36 (d) (1) shall be amended as follows:

(1) For parachute jumps onto or within three miles of any public airport, ~~a copy of prior~~ written approval of that airport's management must be submitted with the request for approval. ~~If approval is given it will indicate if the drop zone is for the exhibition jump only or may be used at other times without another request for approval.~~ Any drop zone for exhibition jumps must have prior approval from the Commissioner for such use.

Aero 36 (f) shall be amended as follows:

(f) Medical Examination. Each person engaged in parachuting shall hold at least a valid ~~Third Class Medical Certificate issued in accordance with FAA standards or be on military jump status.~~ statement issued by a practicing physician signed and dated within two years of any jump certifying that said person has had a physical examination or be on military jump status. A nonresident--that is a person not residing in Minnesota, but wishing to jump in Minnesota at a sanctioned jump meet, may obtain a written waiver of this requirement from the department.

APPROVED AS TO FORM AND LEGALITY
JAN 8 1976 19
WARREN SPANNAUS, ATTORNEY GENERAL
BY /s/ Michael B. Miller
SPECIAL ASSISTANT ATTORNEY GENERAL

STATE OF MINNESOTA
DEPARTMENT OF STATE
FILED
JAN 8 - 1976 - 4:00 pm
Joan Anderson Growe
Secretary of State

FILED
RICHARD L. BRUBACHER
Commissioner of Administration
JAN 8 1976
BY Eda Staudenmaier
AUTH. SIGNATURE R.S. 4.10 PM

EXHIBIT B

STATE OF MINNESOTA

COUNTY OF RAMSEY

BEFORE LAWRENCE E. McCABE

COMMISSIONER OF AERONAUTICS

In the matter of the proposed adoption of Amendments to the Rules and Regulations of the Department of Aeronautics of the State of Minnesota.

ORDER FOR HEARING

To effectively implement applicable aeronautics laws, including Minn. Stat. 360, The Minnesota Commissioner of Aeronautics deems it necessary to consider adoption of the proposed rules captioned above pursuant to the authority vested in me by Minn. Stat. 360.015, Subdivision 3.

NOW, THEREFORE, IT IS ORDERED this 20th day of October, 1975, that a public hearing on the proposed rules captioned above be held November 20, 1975, in Room D of the Veterans Service Building (20 W. 12th Street and Columbus Avenue), St. Paul, Minnesota, commencing at 8:30 A.M., and continuing until all representatives of associations or other interested groups or persons have had an opportunity to be heard.

IT IS FURTHER ORDERED, that notice of said hearing be given to all representatives of associations or other interested groups or persons who have registered their names with the Secretary of State for that purpose and all persons who are presently members of the Minnesota Legislature.

STATE OF MINNESOTA
DEPARTMENT OF AERONAUTICS

Lawrence E. McCabe

Lawrence E. McCabe, Commissioner

EXHIBIT C

STATE OF MINNESOTA

COUNTY OF RAMSEY

In the matter of the proposed adoption of Amendments to the Rules and Regulations of the Department of Aeronautics of the State of Minnesota.

CERTIFICATE

I hereby certify that on the 15th day of October, 1975, I delivered to the Department of Aeronautics a complete and current list of persons, associations, and other interested groups, who as of said date had requested their names to be placed on file with the Secretary of State for the purpose of receiving notice of public hearing on proposed rules on the subject captioned above, as required by M.S. 15.0412.

Joan Anderson Growe
Secretary of State

By: Ceil Dion

EXHIBIT D

STATE OF MINNESOTA

COUNTY OF RAMSEY

In the matter of the proposed adoption
of Amendments to the Rules and Regulations
of the Department of Aeronautics of the
State of Minnesota.

AFFIDAVIT

Evelyn F. Remer being duly sworn on oath deposes and says:

1. That she is an employee of the Department of Aeronautics of the State of Minnesota.

2. That on the 15th day of October, 1975, she secured from the Secretary of State's Office for the State of Minnesota the complete and current list of all representatives of associations or other interested groups or persons who had registered their names with the Secretary of State for the purposes of obtaining notices of public hearings relating to the promulgation of rules pursuant to M. S. 15.0412.

Further affiant sayeth not.

Evelyn F. Remer

Subscribed and sworn to before me
this 20th day of November, 1975.

George Holey

GEORGE HOLEY
Notary Public, Hennepin County, Minn.
My Commission Expires, Mar. 13, 1979

EXHIBIT E

STATE OF MINNESOTA

COUNTY OF RAMSEY

BEFORE LAWRENCE E. McCABE

COMMISSIONER OF AERONAUTICS

In the matter of the proposed adoption of Amendments to the Rules and Regulations of the Department of Aeronautics of the State of Minnesota.

NOTICE OF HEARING

Notice is hereby given that a public hearing will be held pursuant to Minn. Stat. Section 15.0412, Subdivision 4, in the above-entitled matter in Room D of the Veterans Service Building (20 W. 12th Street and Columbus Avenue) on November 20, 1975, commencing at 8:30 A.M. and continuing until all representatives of associations or other interested groups or persons have had an opportunity to be heard concerning the adoption of proposed amendments to the rules captioned above by submitting either oral or written data, statements or arguments. Statements or briefs may be submitted without appearing at the hearing and will be accepted for a period of twenty (20) calendar days following the close of the hearing.

Copies of the proposed amendments and rules are now available and may be obtained by writing to the Commissioner, Minnesota Department of Aeronautics, Administration Building, Downtown Airport, St. Paul, Minnesota 55107. Additional copies will be available at the door at the date of the hearing.

The proposed amendments referred to above generally update, amend, or repeal the existing Rules and Regulations of the Department of Aeronautics. A list of the subjects and issues amended or deleted is attached hereto as Exhibit A.

The Department is interested in receiving comments, criticisms and counter-proposals regarding the above-stated rules prior to the date of the hearing. You should address your communications to the Commissioner, whose address is set forth above. If we receive such communications they will be available for inspection at the hearing and they will be considered by the undersigned as part of the "Record." We also welcome your attendance at the hearing and your submission at that time of any oral or written comments which you might wish to make on the proposed amendments.

Notice is also given that under Minn. Stat. 10A.01, Subd. 11 (1974) any individual engaged for pay or other consideration for the purpose of representing persons or associations attempting to influence administrative action, such as the promulgation of these rules, must register with the State Ethics Commission as a lobbyist within five days of the commencement of such activity by the individual. The State Ethics Commission is located at 410 State Office Building, St. Paul, Minnesota 55155.

STATE OF MINNESOTA
DEPARTMENT OF AERONAUTICS

Lawrence E. McCabe

Lawrence E. McCabe, Commissioner

Dated: October 20, 1975

EXHIBIT A

CHAPTER ONE: Aero 1 - 5

Aero 1--Definitions

The following terms and their definitions are proposed to be added to those terms presently defined in Aero 1:

(1) airport
(2) airport elevation
(3) airport hazard
(4) dwelling
(5) height (concerning height limitations)
(6) nonprecision instrument runway
(7) person
(8) planned (concerning airport developments)
(9) precision instrument runway
(10) runway
(11) slope
(12) structure
(13) tree
(14) utility runway
(15) visual runway
(16) water surfaces

The definitions of the following terms presently appearing in Aero 1 are proposed to be amended or deleted:

(1) air traffic clearance--Aero 1 (d)
(2) balloon--Aero 1 (f)
(3) controlled airspace--Aero 1 (i)
(4) crew member--Aero 1 (r)
(5) flight instructor--Aero 1 (j)
(6) pilot-in-command--Aero 1 (s)
(7) rotorcraft--Aero 1 (n)
(8) second-in-command--Aero 1 (t)
(9) sunset and sunrise--Aero 1 (u)
(10) traffic pattern--Aero 1 (x)
(11) VFR conditions--Aero 1 (z)
(12) IFR conditions--Aero 1 (bb)
(13) key, intermediate and landing strip airports--Aero 1 (cc)

CHAPTER TWO: Aero 6 - 16

Amendments are proposed to Aero 6 - 16 concerning the following areas:

(1) licensing requirements for airports, seaplane bases, heliports and personal-use landing areas;
(2) airport zoning standards;
(3) criteria for determining airport and heliport hazards and obstructions;
(4) restrictions concerning seaplane operations.

CHAPTER THREE: Aero 17 - 27

Aero 17--General Commercial Operations Regulations

The following provisions presently appearing in Aero 17 are proposed to be amended or deleted:

(1) deletion of reference to outdated statutory reference concerning "commercial operations" and "license."
(2) accident reports
(3) place of business
(4) aircraft
(5) airmen
(6) records
(7) hangar
(8) leasing

The following provisions are proposed to be added to Aero 17:

(1) airport maintenance
(2) endorsements to a commercial operations license required
(3) telephone required at place of business
(4) insurance requirements

Aero 18--Flight School

The following provisions presently appearing in Aero 18 are proposed to be amended or deleted:

(1) Aero 18 (a) to define "aeronautics instructor"
(2) Aero 18 (b) through (g) concerning minimum requirements as to records, curriculums, rules, solo, insurance, and performance bonds.

Aero 19--Ground School and Aeronautical Correspondence School

It is proposed that Aero 19 (b) (5) concerning flight or ground instructors be amended. It is further proposed that Aero 19 (c) be deleted for general "housekeeping" purposes.

Aero 20--Approved Schools

It is proposed that the provisions of Aero 20 be deleted in their entirety and that Aero 20 be reserved for future use.

Aero 21 - Aero 26

Amendments are proposed concerning minimum requirements and standards for the following specialized commercial operations:

(1) Aero 21--aircraft charter
(2) Aero 22--aircraft rental and leasing
(3) Aero 23--air ambulance service
(4) Aero 24--aerial spraying or dusting
(5) Aero 25--aircraft servicing, maintaining and repairing
(6) Aero 26--commuter air carriers

CHAPTER FOUR: Aero 28

Aero 28--General Operations Rules

Amendments are proposed concerning the use of unlicensed landing areas.

CHAPTER SIX: Aero 32 - 34

Aero 33--General Flight Rules

Amendments are proposed to Aero 33 (f) concerning proximity of aircraft and 33 (k) concerning approaches and takeoffs from water areas.

CHAPTER SEVEN: Aero 35 - 39

Aero 36--Safety Regulations For Parachuting

Amendments are proposed to Aero 36 (d) concerning prior approval for parachute jumps, and to Aero 36 (f) concerning medical examinations required of parachutists.

Aero 38--Parachuting Schools and Clubs

Amendments are proposed to Aero 38 (a) (7) concerning insurance requirements for parachuting schools and clubs.

EXHIBIT F

STATE OF MINNESOTA

COUNTY OF RAMSEY

In the matter of the proposed adoption of Amendments to the Rules and Regulations of the Department of Aeronautics of the State of Minnesota.

AFFIDAVIT OF MAILING

Evelyn F. Remer, being first duly sworn, deposes and says:

That on the 20th day of October, 1975, at the City of St. Paul, County of Ramsey, State of Minnesota, she served the attached Notice of Hearing by depositing in the United States mail at said City of St. Paul, a true and correct copy thereof, properly enveloped, with postage prepaid, to all persons and associations at the addresses listed on the attached Certificate of the Secretary of State as well as to all persons listed on the attached sheet as presently being members of the Minnesota Legislature.

Evelyn F. Remer

Subscribed and sworn to before me
this 30 day of Oct., 1975

George Holey

GEORGE HOLEY
Notary Public, Hennepin County, Minn.
My Commission Expires, Mar. 13, 1979

EXHIBIT G

STATE OF MINNESOTA

COUNTY OF RAMSEY

BEFORE LAWRENCE E. McCABE

COMMISSIONER OF AERONAUTICS

In the matter of the proposed adoption of Amendments to the Rules and Regulations of the Department of Aeronautics of the State of Minnesota.

STATEMENT OF NEED

The rules proposed for adoption are amendments to existing rules of the Department of Aeronautics.

M. S. 360.011 reflects the concern and desire of the Minnesota Legislature to further the public interest and aeronautical progress by providing for the protection and promotion of safety in aeronautics; Section 360.011 further states that the legislature intended the Department of Aeronautics to cooperate with the federal authorities in the development of a uniform national system of civil aviation. M. S. 360.015, Subd. 3, authorizes the Commissioner of Aeronautics to promulgate and amend reasonable regulations and to establish minimum standards as he shall deem necessary to protect and insure the public interest and safety, and to develop and promote aeronautics in the State of Minnesota. M. S. 360.015, Subd. 4, requires all rules and regulations prescribed by the Commissioner to be kept in conformity, as nearly as may be, with the current federal legislation and regulations.

The regulations now proposed are needed for a number of reasons. One main reason is to promote clarity to those who attempt to read and understand the regulations. On this order many of the suggested changes are merely proposed for general housekeeping reasons. These structural and organizational changes are proposed merely for the sake of clarity and specificity.

Other changes are needed to conform, as nearly as possible, to amendments which have been made to Federal Aviation Administration legislation and regulations. As stated above, M. S. 360.015, Subd. 4, requires Department of Aeronautics regulations to reasonably conform to current Federal Aviation Administration laws and regulations.

Still other changes, more substantive in nature, are needed to further promote safe aeronautics operations and the public interest in aeronautics in the State of Minnesota.

Each of the types of changes, and the needs therefore, are more specifically set forth in the statements of need attached hereto and made a part hereof.

Lawrence E. McCabe

Lawrence E. McCabe, Commissioner
Department of Aeronautics

AERO 1. Definitions

1. Current (z) and (bb) were deleted because the regulations do not define the weather condition minimum prescribed for flight under VFR.

2. Current (cc) was deleted and superceded by definitions (v) (w) and (x). These three d finitions are the same as found in the Minnesota Aviation System Plan.

3. All other definitions that were added to this aero were taken out of Aero 9 as they are general definitions with direct application to more than just one aero.

4. All other changes were to update the definitions to meet the definitions as found in FAR Part 1.

CHAPTER TWO: AERO 6-16

TITLE: The title for Chapter two has been changed for conciseness.

AERO 6. A more descriptive title is used here. Aero 6 and Aero 7 are being combined into Aero 6 only. They both deal with the same subject; that of specifying requirements general to all airport licensing.

(a) This paragraph is being superseded by a clarification of the term "airport."

(b) Formerly (a) except that a title is given to this paragraph (all paragraphs are being titled for ease of reference), and wording is deleted that is covered in paragraph (a).

(1) Formerly (b), now a subparagraph of (b). A title is introduced and the word "appropriate" is inserted for clarity. The table is being superseded by a more "general" and concise table. There are only three standard license forms. "Specifics" of airport licensing are covered in later Aeros. License renewal periods, formally covered in paragraph (c), are added to this table. Renewal of a personal-use airport license is being changed from one to three years. This is a form of deregulating with no significant loss of licensing intent.

(2) Formerly paragraph (f). This more appropriately belongs as a sub-paragraph to (b).

(3) Formerly Aero 7 (a).

(4) Formerly an unwritten requirement. Issuance of a license without appropriate agency approvals can be contradictory or ambiguous. This addition allows for the deletion of Aero 7 (b).

(c) Former wording is now covered in the table in paragraph (b) (1). The new wording was formally contained in paragraph (e).

(d) No change except for the addition of a title.

(e) Formerly paragraph (g).

(f) The addition of this requirement will help to prevent a lot of unintentional problems and violations. For instance, an airport owner may erect a structure only to find out afterwards that it obstructs airspace necessary for safe operation. Or perhaps a private hangar may be erected adjacent to public apron area, rendering that portion of apron unusable to the public because transient parking would block the hangar door. Or a violation of FAA regulations may occur because proposed construction or alteration requires notification to the FAA al least 30-days in advance.

(g) Formerly Aero 8 (a) (6). This language more appropriately belongs in the general provisions, as it is applicable to all airports.

(h) Formerly Aero 7 (c). The converse to this statement is added so that the other realm of unforseeable exceptions can be dealt with.

AERO 7 All incorporated into Aero 6.

AERO 8 A more descriptive title is used here.

(a) This paragraph has been given a more descriptive title. A sentence is deleted and added to paragraph (b). New wording is added for clarity.

(b) Formerly in (a) above. A phrase is added referencing the requirements of Aero 6.

(1) Formerly (a) (1).

(2) Formerly (a) (2).

(3) Formerly (a) (3). Superseded with new language. Criteria for determining obstructions to air navigation are set forth in Aero 9. Therefore, this paragraph references the applicable portions of Aero 9 where the specifics are set forth in more detail.

(4) Formerly (a) (4). A phrase is deleted because it no longer applies to any public airports now in existence. Markers are more desirable from the air. They allow a pilot to distinguish an airport from other land areas more readily.

(5) Formerly (a) (5). The specific subparagraph (e) is added for easier referencing.

(6) Old language now appears in Aero 6 (g). New language formally appeared in (a) (7). A phrase is added to allow for some versatility in wind indicator design.

(7) Formerly (a) (8).

(8) Formerly (a) (9). The word visual is added. This term is defined in Aero 1. The definition of runway in Aero 1 includes landing strips so "or landing strip" is deleted. The slope requirement is reduced from 40:1 to 30:1 for visual runways. This criteria has been used for the TALS program. It is still more restrictive than FAA requirements. Approach zone size and location criteria is deleted because it varies depending on runway development. Approach zones are defined in Aero 9 (e)(4) as referenced in paragraph (3) above.

(9) Formerly (a) (10).

(10) Formerly covered in (a) (11). New language added to allow for some flexibility.

(11) Formerly (a) (12). Last two sentences are deleted and made a separate subparagraph.

(12) Formerly the last two sentences of (a) (12).

(13) Superseded with language formally covered in (a) (14). The requirement to provide a public phone on a 24-hour basis has been found to be impractical if not impossible at some airports. Posting of important telephone numbers is now required for reasons of safety and convenience.

(14) This paragraph incorporates criteria formally contained in (a) (13). A weather-protected bulletin board is now required for posting of pertinent information.

(15) This paragraph is deleted because too many airports are without offices or public enclosures now, and it is improbable that these airports can expect to meet this requirement within a reasonable time frame. Continual waiver of this requirement is the same as no requirement at all, so we deleted it.

(b) Language formerly contained in (b) is deleted and now found in Aero 8 A. This change allows for better organization and ease of reference. It is not likely that one would refer to "Aero 8 Public Airport" to find out about privately-owned commercial airports.

AERO 8 A This Aero was added so that licensing requirements for privately-owned commercial airports could be distinquished separately from public airports.

(a) Formerly Aero 8 (b). The last sentence is deleted and given its own paragraph heading.

(b) Formerly covered in Aero 8 (b). Reference is made to the general provisions of Aero 6. The requirement for fencing lighting and tiedowns is deleted as they do not enhance public safety in this type of private operation. The safety requirements regarding the dispensation of fuel are added.

(c) Aero 17 is cross-referenced here.

(d) Since a privately-owned commercial airport is a restricted airport by definition, it should not be displayed on public charts.

AERO 9. The title is changed because it now only deals with obstructions to air navigation. Many changes is Aero 9 and 10 are for purposes of reorganizing into a more efficient format.

(a) First sentence of old wording is redundant, and therefore deleted. Second sentence is incorporated into the new wording. The wording however is changed to parallel the more effective wording used in FAR Part 77. Most changes to the criteria in Aero 9 are made so as to being our regulations more in line with FAR Part77, therefore deleting a lot of double standards and making the whole subject of obstructions less confusing.

(b) Definitions are deleted as they are now covered in Aero 1. This new criteria was formally covered in Aero 8 (a) (3). More fittingly belongs here in Aero 9. Wording parallels FAR Part 77.

(c) The addition of this requirement will help prevent a lot of unintentional problems and violations. Unaware to many, FAR Part 77 already has a notification requirement. This requirement should help spread the word on notification responsibilities.

(d) Obstructions are separated into two categories. This paragraph describes general obstructions.

(1) Formerly (d). Reworded to parallel FAR Part 77.

(c) This paragraph is being deleted. Similar wording is not to be found in FAR Part 77. It is a double standard as the acceptable obstruction standards for instrument approache are defined later.

(2) Formerly paragraph (f). Statute miles are changed to nautical miles as used in FAR Part 77.

(3) Formerly paragraph (g).

(4) Formerly (h). Objects can increase flight visibility minimums and are every bit as adverse to flight operation as objects which would increase flight altitude minimums. Therefore, flight visibility minimums are mentioned.

(i) Deleted because it is outdated. There is no parallel requirement in FAR Part 77.

(e) Second category of obstructions; those which will adversely affect aircraft operation in and around airports.

(1) Formerly (c) (1). Primary Surface criteria is brought in line with FAR Part 77.

(2) Formerly (c) (2).

(3) Formerly (c) (3).

(4) Formerly (c) (4). Approach Surface criteria is brought more in line with FAR Part 77.

(5) Formerly (c) (5).

(6) Formerly (c) (6).

(f) Formerly paragraph (j). A new introductory sentence is used. Subparagraphs are given titles. Last sentence of subparagraph (3) is deleted because it now appears in Aero 14. Criteria parallels that of FAR Part 77.

(g) Formerly (k). AC 70/7460-1B has been twice revised and is now numbered AC 70/7460-1D. Reference to specific paragraph for sperical markers is deleted because it changes as revisions are made.

AERO 10 Aero 10. Title is changed. All airport zoning standards are more set forth in

(a) This introductory sentence is reworded due to the reorganization.

(b) Definitions are deleted as they all appear in Aero 1. New language formerly appeared in Aero 9 (a) last paragraph.

(c) This new section on the zoning of airspace is introduced, and references the criteria set forth in Aero 9 (e). This is an organizational change only.

(d) Paragraph (c) describes the airspace zones, this paragraph specifies the restrictions within the airspace zones.

(e) Formerly paragraph (c).

(f) Formerly paragraph (d). A brief explanation is given as to why these restrictions are set forth. Criteria in subparagraph (3) is revised to allow for more flexibility with no loss in the zoning intent. The paragraph that is cross-referenced in subparagraph (4) is changed because these changes have caused a renumbering of that paragraph.

(g) Formerly (e). A title is given to this paragraph.

ADMIN. 1000

STATE OF MINNESOTA

DEPARTMENT Aeronautics

Office Memorandum

TO : John Stoller

DATE: November 7, 1975

FROM : Larry R. Myking

SUBJECT: Statement of Need for Aero 12 - 16.

CHAPTER TWO: AERO 12 - 16

Aero 12

The title was changed to coincide with the title of the Aero regulations dealing with the licensing of a public airport.

Subparagraph (a) was changed to coincide with the definition of a public airport.

A portion of subparagraph (e) was deleted because it was already covered under the general provisions of Aero 6.

The last portion of subparagraph (f) was deleted because the statement is an operational regulation that doesn't pertain to the size of the landing area being considered for licensing.

Subparagraph (i) was changed to coincide with the wind indicator requirements for public airports.

Subparagraph (j) was changed for clarity in order to more specifically define which "facilities" will be required at a public seaplane base. The only additional required facility at a public seaplane base is the bulletin board. It was added to coincide with the bulletin board requirement for public airport licenses.

Subparagraph (k) was changed to indicate that the following were "minimum" in safety equipment.

Subparagraph (k) as it now reads was deleted in its entirety because it doesn't seem to be a very practical or necessary requirement. It is probably adequately covered under subparagraph (j)(6).

Titles to all the above subparagraphs were added for clarity.

Subparagraph (k)(4) as it now stands was changed to require a supply of lines available for each of these operations.

Subparagraph (k)(5) as it now stands was changed to (4) and (5) for clarity and to coincide with the similar breakdown for public airports and public heliports.

Subparagraph (l) was deleted in its entirety and placed under a new section, Aero 12(a), to coincide with the breakdown under public airports and public heliports.

Aero 12A

A separate Aero regulation was established for clarity in order to separate the two types of licenses and to define more clearly the use and operation of the privately-owned seaplane base. It will also coincide with the breakdown and separation of privately-owned public airports from public airports, and privately-owned heliports from public heliports.

Aero 13

It is proposed that Aero 13 as it presently stands be deleted in its entirety.

Chapter Two deals with licensing requirements for various types of licenses that we issue. Aero 13 as it presently stands deals with operational requirements for using unlicensed landing areas. These operational requirements have been moved to other more appropriate Aero regulations in Chapter Three.

Aero 13

Aero 12A has been changed to cover the licensing of privately-owned commercial seaplane bases, and Aero 13, Unlicensed Landing Areas, has been deleted. As a result, Aero 12A has been changed to Aero 13.

The word, "certain," has been added for clarity because the regulations don't apply to public waters in general as stated, but only to specific public waters.

A more appropriate title for Aero 13 might be Seaplane Operations on Public Waters Within the Seven-County Metropolitan Area.

Subparagraph (a) was changed to list the counties in alphabetical order for clarity.

Subparagraph (b) was changed to include a title for clarity.

In subparagraph (b), the order of listing the counties and lakes within the counties have been changed to place the counties and lakes in alphabetical order in order to make it easier to find a specific lake.

Subparagraph (b) has been amended to permit seaplane operations on Lake Alimagnet, Long Lake, Schmidt Lake, and St. Alban's Bay in Lake Minnetonka. We conducted a reexamination of these lakes including their past safety record and concluded that these lakes could be safely used as they have been safely used in the past.

In Washington County, the changes were due to typographical errors.

Subparagraph (c) was changed to permit the holder of a personal-use seaplane base license to come and go from his licensed base. At anytime that lake traffic permits. The rest of the pilots using the lake for touch and go landings, flight schools, etc., will still be prohibited from using these lakes during those certain hours and days. The safety record on these lakes by the pilots holding personal-use seaplane base licenses does not warrant their being restricted from all use of the lake during those restricted periods. Removing this restriction for those pilots will not significantly increase the amount of seaplane traffic on the lake and should make seaplane operations much more convenient for the pilots involved.

Subparagraph (f) was added to ~~clarify~~ CLARIFY the point that those regulations were not intended to apply to ski-equipped aircraft.

Titles to all the above subparagraphs were added for clarity.

Aero 14

The title of Aero 14 was changed to coincide with the title for licensing public airports and for licensing public seaplane bases.

Subparagraph (a) was changed to coincide with the respective subparagraph of the Aero regulation dealing with the licensing of public airports and with the Aero regulations dealing with the licensing of public seaplane bases.

Subparagraph (b) was added and redefined to coincide with the FAA definition of a landing and takeoff area. A more specific length and width of the area was added which coincides with the length and width recommended in the FAA heliport design guide.

Subparagraph (c) was added to coincide with the FAA criteria in their design guide.

Subparagraph (d) was added as a recommended obstruction free safety zone as recommended by the FAA heliport design guide.

Subparagraph (2) was deleted and redefined according to the FAA heliport design guide in the new subparagraph (f). The dimensions of the approach departure path have been amended to coincide with the FAA criteria for these paths.

Subparagraph (3) was deleted in its entirety and moved to item number (3) under subparagraph (f).

Subparagraph (4) was changed to subparagraphs (g) and (h) to conform with a similar breakdown under the respective Aero regulations dealing with airports and seaplane bases.

Subparagraph (6) was deleted and changed in content to the new subparagraph (j). This was changed for clarity and to conform with the FAA criteria in the FAA heliport design guide.

Subparagraph (k) was added as recommended by the FAA heliport design guide.

Subparagraph (l) was added to clarify the intended scope of these regulations.

Subparagraph (b) was deleted to coincide in format with the airport and seaplane base regulations.

Aero 14A

A separate Aero regulation was established for clarity in order to separate the two types of licenses and to define more clearly the use and operation of the privately-owned seaplane base. It will also coincide with the breakdown and separation of privately-owned public airports from public airports, and privately-owned seaplane bases from public seaplane bases.

Aero 16

The title was changed to coincide with the title of the Aero regulations dealing with the licensing of a public airport.

Subparagraph (a) was changed to include those areas where an aircraft is regularly operated from rather than an area upon which an aircraft is only stored. The fact that an aircraft is in storage on personal property should not necessitate his having an airport license. The last of subparagraph (a) was changed for clarification and ~~standanization.~~ STANDARDIZATION

Subparagraph (2) was changed to delete state airways because we don't currently have any state airways.

Subparagraph (3) and subparagraph (4) were deleted and became items number (1), (2), and (3) under the new subparagraph (d). This change was for clarity.

Subparagraph (e) was added to give us some criteria by which to judge the size.

The rest of the changes were changes in format made for clarity and consistency with the rest of the Aero regulations.

CHAPTER THREE: AERO 17-27

Aero 17 General Commercial Operations Regulations

Aero 17(i) Reason: The regulation is not enforced nor complied with by the operators. All accidents are reported to the FAA and the NTSB. This department can receive information concerning an accident from the appropriate Federal agency.

Aero 17(j)(2) Reason: It may not be economically feasible for a commercial operation to build an office at an airport or there may be no office space available. However, there may be room for hangaring aircraft. We still require a place of business. A charter outfit can work just as well from a downtown location as from the airport. It would then be similar to a corporate operation as far as aircraft handling goes. The applicant must still have permission to commercially operate its aircraft from the airport.

Aero 17(j)(2)(bb) Reason: Deleting Aero 17(r) Leasing.

Aero 17(k) Reason: It is the FAA's responsibility to monitor aircraft maintenance and issue airworthiness certificates.

Aero 17(l) Reason: The FAA sets the standards for license requirements for the type of equipment and kind of activity. Any violations are enforced by the FAA.

Aero 17(m)(1) Reason: Add the aircraft's identification to make the register more complete. Rearrange the order.

Aero 17(m)(2) Reason: The physical examination date is important to know at all times for all types of operations.

Aero 17(m)(3) Reason: It is important to know that the aircraft are properly maintained and are in an airworthy condition, because it is an indication of how well the business is doing and it is a safety of flight item.

Aero 17(n) Reason: The requirement for having hangar facilities is being deleted because it creates an unnecessary burden on new operators just starting out, especially on new or unattended airports. Also, this requirement is quite often waived and seldom enforced because it allows so many options by the use of the words "or in lieu thereof" etc. Lastly, it is presumed that a commercial operator who wishes to establish a worthwhile business during the inclement seasons will make every effort to protect his aircraft from exposure to the hazards of severe weather.

Aero 17(r) Reason: It is inequitable to license a person who leases an aircraft to an exempt institution. We are unable to cover the long term lease situation or the situation where there is a lease with an option to buy.

Aero 17(s) Reason: Eliminating the maintenance agreement from the various Aero regulations and placing it under Aero 17 will strengthen this regulation by covering all commercial activities that utilize an aircraft in its operation. Aerial demonstrations and air rides presently do not need a maintenance agreement. It will also serve to make Aero 17 the basic commercial operations regulation; the others being for endorsements. The commercial operations application will contain a section for listing those operators licensed for Aero 25 that the applicant has a contract or agreement with. This way, the information will be updated annually.

Aero 17(t) Reason: All commercial operations must comply with Aero 17. This will now state that requirement. This change will also tell the applicant what must be done to receive an endosement to his commercial operations license.

Aero 17(u) Reason: A commercial activity cannot adequately serve the public unless a telephone is available for communications.

Aero 17(v) Reason: The insurance requirements that are common to commercial activities are being placed under the general regulations. The specific types and amounts of coverage will be located in the appropriate aero regulation. This will strengthen the general regulation by stating the need for insurance. Becuase each type of commercial activity has a different insurance requirement, the specifics are located elsewhere.

Aero 18(a)(3) Reason: This type individual does not need a commercial operations license to give instruction. The department has operated under the above premise. By including this in the regulations, any doubts concerning this activity are eliminated. The small independent instructor then knows his limitations. He still must operate under FAR's that govern flight instruction.

Aero 18(b)(1) Reason: The department wants a permanent record of a student's training on file at the school. A logbook does not accomplish this because it is the student's personal property. A telephone is being added as a general requirement in Aero 17. Aero 18(d) covers the need for a bulletin board for certain materials.

Aero 18(b)(2) Reason: Covered in Aero 17 as revised.

Aero 18(c) Reason: A curriculum is much too detailed for most Part 61 operations. In licensing these schools, our primary concern should be to assure that the proposed course will follow a format that complies with the FAR's. Changing to (b)(2) for order.

Aero 18(d) Reason: The items deleted from Aero 18(b)(1) are more appropriate to this section. It is important that the rules are posted at the flight school where the flying activity is to take place and not at the airport where the information may not be readily available.

Aero 18(e) Reason: This section is too restrictive to the operators curriculum because it does not allow for flexability in the training program. It can be detrimental to a student who is ready for the first solo but can't due to the eight hour requirement. The student's motivation and incentive can be effected. Not all students progress at the same rate; therefore, it is the instructor's job to determine when the first solo is to take place.

Aero 18(f) Reason: The general requirements are placed in Aero 17 as revised. The statement, "to include the solo student," is deleted because he is, by insurance definition, a pilot; specifically a renter pilot who is <u>not necessarily</u> covered by the commercial operator's insurance policy. Insurance companies recommend rates higher than our current minimums. Only a very small percentage of flight school rates are currently for the department's minimums.

Aero 18(g) Reason: A bond is a minimum requirement for the endorsement.

Aero 19 Ground School and Aeronautical Correspondence School

Aero 19(b)(5) Reason: The word, "qualified," is too arbitrary. We have no guidelines or definitions of this word to follow.

Aero 19(c) Reason: Covered in Aero 17 as revised.

Aero 20 Approved Schools

Aero 20 Reason: This regulation is not used or complied with. Any recommendations or approvals for training are done by letter.

Aero 21 Aircraft Charter

Aero 21(b) Reason: Air Taxi/Commercial Operator certificate is proper name of certificate issued by FAA. A letter of registration (CAB Form 298A) is now required by anyone involved in Air Taxi/ Charter. Valid registration relates to current insurance requirements in force.

Aero 21(c) Reason: The requirement for an office is covered adequately in Aero 17, and the term, necessary facilities and equipment, is too subjective.

Aero 21(d) Reason: Covered in Aero 17 as revised.

Aero 21(e) Reason: The general requirements are found in Aero 17 as revised. The CAB sets the minimum insurance requirements for air taxi/commercial operations certificates which are $100,000, $300,000, and $100,000 for property damage and $75,000 passenger seat liability. These amounts are adequate, and the department need not specify lower minimums.

Aero 21(f) Reason: Covered in Aero 17 as revised.

Aero 22 Aircraft Rental or Leasing

Aero 22 Reason: The term, "lease" or "leasing," is being deleted from Aero 17.

Aero 22(b) Reason: The term, "lease," "leasing," or "leased" is being deleted from Aero 17.

Aero 22(c) Reason: Too many superfluous and subjective words. The word, "lease," is deleted in all other regulations. No need to have certificated pilots act as line crew when an aircraft is checked out.

Aero 22(d) Reason: Covered in Aero 17 as revised.

Aero 22(e) Reason: The basic requirement for insurance is moved to Aero 17 as revised. Insurance companies recommend rates higher than our current minimums. Only a very small percentage of the operator's rates are currently for the department's minimum amounts. The public will then be covered better.

Aero 22(f) Reason: Covered in Aero 17 as revised.

Aero 23 Air Ambulance Service

Aero 23(c) Reason: Covered in Aero 17 as revised.

Revised (c) Reason: Department of Health involved in certification of air ambulance since 1973, and we should not license this service over Department of Health objections.

Aero 23(d) Reason: The CAB has minimum insurance standards for Air Ambulance services which exceed our current minimums. They are $100,000, $300,000, and $100,000; $75,000 for each passenger seat.

Aero 23(f) Reason: Correct wording for FAA ATCO Certificate.

Aero 23(g) Reason: Covered in Aero 17 as revised.

Aero 24 Aerial Spraying or Dusting

Aero 24(b) Reason: Endorsement requirements are found in Aero 17 revised. It is common knowledge that employees do not have to have a commercial operations license. The important part of this section is the emergency provision which should be identified as such. So there is no mistake as to what powers the Commissioner has, the words, "the aero regulations," were added.

Aero 24(e) Reason: Combining Aero 24(h) with this section. Both refer to common subjects, and therefore, should be together.

Aero 24(f) Reason: A pilot is now excluded if he has an ATP certificate. This certificate requires that the pilot hold a commercial pilot certificate; therefore, he is well qualified to engage in aerial spraying or dusting. The fact that a pilot has 1,000 hours of pilot time has no bearing on his ability to safely conduct spraying operations. Offer greater importance that a flight hour requirement is the need for some kind of training,

dual instruction being more valuable than supervised training. Because of this, the department is deleting the 1,000 hour requirement and increasing the simulated instruction time to 10 hours. Aero 24(f)(5) is deleted and moved to 24(f)(i) so that it will be better understood that this requirement applies to all pilots. Due to the difference in characteristics between aircraft, it is most important that a pilot receive the 10 hours of flying time in the preceding six months in the make and model of aircraft.

Aero 24(h) Reason: Combining with Aero 24(e).

Aero 24(j) Reason: Covered in Aero 17 as revised.

Aero 24(k) Reason: This certificate is required by the FAR for agricultural aircraft operations. By having a copy of the certificate, the department will know any limitations placed on the applicant's operation.

Aero 24(l) Reason: The most dangerous commercial activity needs some insurance requirements to protect people and property. Chemical drift insurance is excluded due to the excessive premiums. The general insurance requirements are in Aero 17 as revised.

Aero 25 Aircraft Servicing, Maintaining, and Repairing.

Aero 25(a) Reason: A definition of this function is not presently included in our regulations and should be so that this regulation coincides with our other forms of commercial operations. Also, a definition is required to aid in identifying the form of servicing, maintaining, and repairing which we want to license.

Aero 25(b) Reason: Delete all of Paragraph (a) and (b) as is and substitute the following which is now (b) because of the added definition.

Aero 25(d) Reason: The public should be adequately protected from injury or accident. These types of coverages were recommended by people in the insurance industry. Hangar keepers legal insurance is not recommended due to the variance in businesses.

Aero 26 Commuter Air Carriers

Aero 26(a) Reason: Paragraph (a) as presently written does not seem to be a good definition of commuter air carrier service. As rewritten, it would serve as a prelude to minimum requirements for this service which are presently disorganized.

Revised (a) Reason: This definition coincides with the CAB definition found in ER Part 298. This definition is much more definitive and explicit than our present definition and allows easy identification of a commuter air carrier.

Aero 26(b) Reason: This paragraph is an incomplete definition. The applicable portions of this definition are covered adequately in the new definition under (a).

Aero 26(c) & (d) Reason: These regulations cover exceptions to the regulations and should be listed last in the order or requirements.

Aero 26(e) Reason: This paragraph is redundant in that the pertinent information is covered in Aero 17 and Paragraph (b) as rewritten.

Aero 26(n) Reason: The CAB has minimum insurance standards for Commuter Air Carriers which are: $100,000, $300,000, and $100,000, $75,000 for each passenger seat. The addition of minimum amounts reflects the need for insurance for public protection.

ADMIN 1000

STATE OF MINNESOTA

Office Memorandum

DEPARTMENT Aeronautics

TO : John Stoller

DATE: November 19, 1975

FROM : Larry R. Myking

SUBJECT: Statement of Need

Chapter Four Aero 28

When we deleted Aero 13, Unlicensed Landing Areas, we transferred these two statements under Aero 28(i) and (j) from Aero 13.

We felt that these statements could more appropriately be made under the General Operation rules of Aero 28.

Aero 33 General Flight Rules

Justification for proposed change to Aero 33 (f) is as follows:

When parachutists wish to form a star of six to ten people, many times they need to use more than one aircraft. They must jump out of the aircraft at about the same time, and as close to each other as possible.

Justification for proposed change to Aero 33 (k) (5) is as follows:

This was taken from Aero 12 (f) and put into Aero 33 (k) (5) where it should be because it is a general flight rule.

CHAPTER SEVEN AERO 35-39

BASIC SAFETY REGULATIONS GOVERNING PARACHUTING AND SKYDIVING

Aero 36 Safety Regulations for Parachuting

Justification for proposed change to Aero 36 (d) (1) is as follows:

This change is for better wording.

Justification for proposed change to Aero 36 (f) is as follows:

The Third Class Medical Certificate is a pilot physical. In many cases, a person may have a physical problem that will not let fly, but it would not be a problem for parachuting.

Aero 38 Parachuting Schools and Clubs

Justification for proposed change to Aero 38 (a) (7) is as follows:

The minimum insurance is the same as all the other commercial operations are required to have in all the rules and regulations. Insurance companies recommend rates higher than the current minimums. The revised minimums more adequately protect the interests of those passengers and third parties to whom injury may occur.

EXHIBIT H

MINN. DEPT. OF AERONAUTICS
NOV 18 1975

309 West Second Street
Canby, MN 56220
November 15, 1975

Mr. Lawrence E. McCabe
Commissioner of Aeronautics
St. Paul, MN

Dear Mr. McCabe:

I have been reading thruugh the proposed changes in regulations and have found several areas that I believe need clarification or revision. They are as follows:

1. In Aero 8b (1) minimums are established for turf landing strips but not for hardsurfaced runways. Why?

2. Does 8b (1) mean an airport with one runway at least 2500 feet long cannot have a shorter cross runway for strong wind conditions? Landing into the wind on a 1500 feet runway is much safer than landing cross-wind on a 5000 foot runway when a 20 Kt or greater wind is blowing.

3. In Aero 8b (3) the regulation states that a visual runway (other than utility) will not be licensed if it has objects in a 40:1 approach surface. If this is the case then Aero 8b (8) certainly shouldn't be refering to objects above a glide slope of 30:1 requiring lighting since such a runway could not exist. I do not believe a license should be denied if a 40:1 cannot be achieved but a 20:1 or 30:1 can.

4. Does Aero 16 prohibit giving dual for hire in the students airplane, on the personal use airstrip the student will regularly be using. If it does, the Department of Aeronautics is creating and fostering unsafe operations, since an instructor may check out such a student on that field for no charge, and the student may then fly off the strip solo, but may not receive dual for hire in operations off the strip. If a student or private pilot can legally fly solo off the strip, it is only reasonable that he should be able to receive dual in operations off that strip in order that he become a safer pilot!!!

I agree that a commercial operator should not give dual from personal use strips in his aircraft.

5. Delete last five words of Area 18 (a)(2). Why does it have to be collegiate work? How about Secondary, post secondary vocational, or adult education through an accredited school.

6. Area 18b (4). Insurance should protect the student or pilot renters which is usually not the case now, and the student or renter pilots are not aware of it!!! If this is not done the operator should be required to post a sign in the office and on the flight line informing renter pilots that they are not covered fy the operators insurance. It would be a lot cheaper for operators to carry such coverage and increase the hourly rates slightly than to have each renter pilot carry his own non-owner liability. (A requirement on Hull insurance should also be considered).

7. Area 18b (4) insurance. (1)(2)(3) should be (i)(ii)(iii) to be in a proper form.

8. Area 17(r) and 18b(4). Does this require a commercial operator of a flight school who does not own aircraft but gives dual in student owned planes to carry insurance on the students' aircraft. This is how the reg. reads as it is now written. (And it sure shouldn't!!) Although said operator could reasonably be required to ascertain that the owner carrys adequate coverage before giving dual in the aircraft.

9. Area 22(d) insurance-refer to above comment for item #6.

I sincerely hope that you give much thought to these comments, especially items 2,4,6,8, and 9. Feel free to contact me at home after 4:00 PM if you have any questions (507-223-5054).

Thank you,

Ken Raiber CFIA
Math-Aviation Instructor
Canby High School

Address:
Ken Raiber
309 W. 2nd St.
Canby, MN 56220

EXHIBIT I

November 19, 1975

State of Minnesota
Department of Aeronautics
St. Paul, Minnesota

Attention: Lawrence E. McCabe
Commissioner of Aeronautics

Gentlemen:

We the seaplane owners of the Minneapolis - St. Paul area would like to submit the following for your consideration:

As of this date there are restrictions as to the time we may use the lake and the areas we may use. (Section - Aero 12A). Because of these restrictions we have been denied the use of our aircraft for the utilitarian purpose in which we have a considerable investment in time and money.

From my own experience, I would like to cite the following incidences: I live on Lake Minnetonka and have a small two place amphibian based on the lake with a state seaplane base license.

1. I was to pick up my daughter in Olivia, Minnesota. Because of the restrictions I was forced to leave early in the morning. After a one hour flight I had to wait at the Olivia airport for 5½ hours to prevent returning during the restricted time. So the trip took 6 hours instead of two and consumed most of one day.

2. For my annual inspection, I had to fly to Southport Airport on Saturday. I had to make special arrangements to be first in line for the inspection so I could return before the restriction time. This prevented me from staying for lunch and the other planned activities since I would have had to wait until 6 p.m. to return.

3. On two occasions on Sunday I wanted to go to fly-ins or air shows but could not unless I missed church in the morning since I could not get back in time to have before the restriction. I, therefore, had to abandon my plans.

4. I have also been forced on occasion to readjust my flight time to avoid the restriction in spite of deteriorating weather conditions.

Considering a normal seaplane operation, I taxi for approximately 3/4 minutes, the take-off consumes 30 seconds, therefore total water time is 3½ to 4½ minutes. Compare this to the average boater who spends most of the day racing from one end of the lake to the other for no utilitarian purpose.

We, therefore, protest this restriction as denying us the use of our aircraft for the utilitarian use for which it was designed.

We recognize the circumstances that caused these restrictions. It is of interest to note that the same week the accident at Lake Josephine occurred there were two motor boat accidents in which people were maimed by boats. No one however showed interest in motor boat restrictions. We, therefore, feel we are being unjustly discriminated against because we are an easily identifable minority. Consider! We are the most highly qualified operators on the lake. Contrast this to the average boat operator who requires no license or training, and has been known to occasionally indulge in a beer or two or three. Restricting us is like taking the professional driver off the road because of accidents and leaving it to unlicensed drivers.

We further recognize these restrictions were brought about by severe public pressure; as we sat through many local meetings on this, we were appalled at considered restrictions. We, however, wish to express to this board our appreciation for assuming the over all responsibility for this to prevent the chaos which otherwise would have resulted.

Another aspect of these restrictions is the closing of the areas in the name of "safety." These areas had previously been issued licenses by this board after an on site inspection by this board showed safe operations would be justified. Why all of a sudden is it no longer safe to operate during these times and in these areas?

We fail to find any basis for the hours selected, either boat use surveys, or observations, since our observations show no justification for the hours selected. Having personally observed the area in front of my house on Cook's Bay, one of the more traveled areas of Lake Minnetonka, I can testify that during the heaviest days- Memorial Day, 4th of July and Labor Day, I made observations every hour and at no time did I observe any boat congestion whatsoever.

We are therefore forced to conclude that these regulations done abstentiously in the name of "safety" have been perpetrated by an uniformed public who believe that landing aircraft is an unguided bomb who will devour the entire lake. As I am sure you are aware, the pilot is in the best position to get a total over view of the lake and can adjust his landing accordingly.

From these observations we can only conclude that the restrictions are more for noise abatement than in the name of safety.

It should be noted that when the hearings were occurring by the Lake Minnetonka Water Commission every neighbor of Al Schauss who operated out of St. Albans Bay, at the meeting gave a testimonial to how much they enjoyed watching Al's plane operate.

We recognize that not all areas are safe for all aircraft; just as the St. Bonifacius airport would not be safe for a 727, but a Cessna can operate in perfect safety. So, too, some lake areas are safe for only certain types of an operation. A C-47 on floats for example could not operate safely from St. Albans Bay. Why, then is all traffic banned.

In the past it has been the pilots duty to determine safe operation practices (FAR 91.5 b). Why should water operation be different?

Since the Minnesota State Department of Aeronautics has always been one of those looked to as leaders in the nation in providing the best for the flying public and has provided us with an airport system used as a model for the rest of the country, we respectfully submit the following amendments for your consideration:

Amend Section A 12A-C to allow an occasional take off and landing during any time period, to a destination away from the point of departure or returning from such a point if it can be done in safety in view of the proposed regulations Section 33k.

To allow the same operation from the now restricted areas by planes and persons that were previously certified by the State by the issuance of license for operation in said area.

We thank you for your serious consideration of these matters as we are confident this type of operation will be fully accepted by the non-flying public and yet allow us to use our aircraft for the purpose that they were intended.

Respectfully submitted,

Richard W Brown 1592875
F. A. Schauss St Albans Bay
P. R. Wilcox - CAA - Ch. 25 Wres.
Arden Nelson - Mound

EXHIBIT J-1

CITY OF
maple grove

9401 FERNBROOK LANE / MAPLE GROVE, MINNESOTA 55369 / PHONE 425-4521

MAYOR ..... Richard H. Reimer
COUNCILMAN ..... James Deane
COUNCILMAN ..... Nathan Johnson
COUNCILMAN ..... Robert Puncochar
COUNCILMAN ..... James Talmage
CITY ADMINISTRATOR ..... Robert A. Erickson

NOV 26 1975

November 25, 1975

Mr. Lawrence E. McCabe
Commissioner of Aeronautics
Administration Building
St. Paul Downtown Airport
St. Paul, Minnesota 55107

Dear Mr. McCabe:

Please find enclosed a petition from a number of Maple Grove residents who reside on Fish Lake. Also find enclosed Resolution No. 75-184 from the City Council, City of Maple Grove requesting your consideration to remove Fish Lake as an authorized lake that may be landed on by water aircraft.

Further, I would like to bring to your attention, prior to the upcoming legislative session, that the Hennepin County Park Reserve is presently pursuing purchase of three regional parks including Eagle Lake, Fish Lake, and Weaver Lake. It may also be appropriate at this time to consider removal of the additional lakes which will eliminate any hazards these approximately 125 acre parks will bring to these bodies of water.

If you have additional questions regarding this matter, do not hesitate to contact me.

Sincerely,

Robert A. Erickson

Robert A. Erickson
City Administrator

RAE:mg
Enc.
Cc: Representative Tad Jude
Senator George Pillsbury

EXHIBIT J-2

September 2, 1975

We, the undersigned residents of the area in or near Fish Lake, do herein afix our signatures to a petition to request the Commissioner of Aeronautics to eliminate Fish Lake as an authorized lake for aircraft landings.

	Name	Address
1	Mr. + Mrs. Robert E. Busco	7642 Mariner Drive
2	Robert Campbell	7579 MARINER DR.
3	Steven A Curtis	7579 Mariner Drive
4	Jean Kennedy	7574 Mariner Dr.
5	Yvonne Scott	7540 Mariner Dr.
6	Susan B Spangler	7658 Mariner Dr.
7	Donald W Ehresmann	7613 Mariner Drive
8	Jan Sjodin	7200 Orchard Ln. N.
9	Nancy Christensen	7281 West Fish Lake Road
10	Al Sjodin	7200 Orchard Ln No.
11	Tony Brunelle	7513 Maplewood Dr.
12	Carol Brunelle	7513 Maplewood
13	Bob Pickard	7501 Maplewood Dr.
14	Art Embson	7433 Fernbrook Cr.
15	Karen A Erickson	7433 Fernbrook Lane
16	Marilyn Pickard	7501 Maplewood Drive
17	Dale Nelson	7522 Maplewood Drive
18	Russ Nelson	7512 Maplewood Dr
19	Tom Strong	7549 MAPLEWOOD DR
20	Gary Strong	7549 Maplewood Dr.
21	Carol Lee	7359 Mariner Dr.
22	Clarke J. Saverstein	7404 Mariner Dr.
23	Mary J. Saverstein	7404 Mariner Dr.
	~~Bob Stuck~~	~~15352 Weaver Lake Rd~~
	~~Marcia Stuck~~	"
24	Patience N. Gall	8123 Maple Lane
25	Gayle Sommers	7565 Maplewood Dr.
26	Larry Essendrup	7516 Mariner Drive
27	Robert Anderson	7501 Mariner Drive

September 2, 1975

We, the undersigned residents of the area in or near Fish Lake, do herein afix our signatures to a petition to request the Commissioner of Aeronautics to eliminate Fish Lake as an authorized lake for aircraft landings.

	Name	Address
28	Robert J Spangler	7658 Mariner Dr
29	Myron V. Kubik	15409 - West Fish Lake
30	Robert G Eaton	7474 Mariner Dr.
31	D H Spillers	7458 Mariner Dr.
32	Dorothy O'Eaton	7476 Mariner Dr.
33	Phyllis Spillers	7458 Mariner Dr.
34	Margaret Anderson	7501 Mariner Dr

EXHIBIT J-3

CITY OF MAPLE GROVE

RESOLUTION NO. 75-184

WHEREAS, the Commissioner of Aeronautics for the State of Minnesota has established Fish Lake in the City of Maple Grove, County of Hennepin, as a lake upon which water pontoon aircraft may legally land; and

WHEREAS, the said Fish Lake is heavily populated during the Summer months with fishermen, water skiers, swimmers, and people engaged in other water activities; and

WHEREAS, the shoreland surrounding Fish Lake is becoming heavily populated with development; and

WHEREAS, the citizens living in the Fish Lake Area have petitioned that aircraft be forbidden from said Fish Lake; and

WHEREAS, the City Council of the City of Maple Grove, after making its own investigation of the aircraft usage of Fish Lake, deems it advisable to request of the Commissioner of Aeronautics that Fish Lake be eliminated as a lake on which aircraft may freely land when not motivated by emergency,

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Maple Grove:

1. That the Commissioner of Aeronautics be requested to remove Fish Lake in the City of Maple Grove, County of Hennepin, State of Minnesota, from the authorized lakes on which aircraft may land in non-emergency situations.

2. That a copy of this Resolution be mailed to the Commissioner of Aeronautics of the State of Minnesota along with the petition signed by residents in the Fish Lake Area, which petition makes a similar request of the Commissioner of Aeronautics.

3. That this Resolution be served upon any other interested parties including but not limited to the Minnesota State Legislators, Hennepin County Commissioners, and elected public officials from neighboring communities.

Motion for the adoption of the foregoing Resolution was made by Councilman Deane and seconded by Councilman Johnson, and upon a vote being duly taken thereon, the

following voted in favor thereof:

Mayor Richard Reimer and Councilmen Deane, Johnson, Talmage and Puncochar

and the following voted against: None

and the following were absent: None

WHEREUPON, the Resolution was declared duly passed and adopted.

STATE OF MINNESOTA)
COUNTY OF HENNEPIN) ss.
CITY OF MAPLE GROVE)

I, the undersigned, being the duly qualified and acting Clerk of the City of Maple Grove, Minnesota, hereby certify that the above and foregoing Resolution is a true and correct copy of the Resolution as adopted by the City of Maple Grove, Hennepin County, Minnesota, on the 17th day of November 19 75.

Jerri Fleming
City Clerk

(SEAL)

EXHIBIT K

MESABA AVIATION "By Land or By Sea"
2002 AIRPORT ROAD • GRAND RAPIDS, MINNESOTA • PHONE 326-6657
A DIVISION OF HALVORSON OF DULUTH, INCORPORATED

November 26, 1975

Mr. Lawrence McCabe
Commissioner of Aeronautics
State of Minnesota
Department of Aeronautics
Administration Building
St. Paul Downtown Airport
St. Paul, Minn. 55107

NOV 29

Dear Mr. McCabe:

Gordy Newstrom and myself made a valiant effort to attend the hearing set up for the purpose of reviewing the proposed changes to State Air Regulations. Due to the inclimate weather and our schedule being changed from other duties, we were unable to make it. I am taking this opportunity to make written comments on the regulations.

In the area of Flight Schools and Flight Instructors, I was glad to see that some thought and consideration has been given to the delicate subject of who may operate a flight school and when it becomes illegal for a private individual to offer himself as an instructor. The way it is written, though, seems to fall far short of what I would call an adequate regulation.

Unfortunately, I believe there are too many unscrupulous and irresponsible instructors operating in the state and, I am sure, across the country. There are more 'Backyard Bi-Annuals' being given than real ones. This I am sure of from our own experience here at Grand Rapids. There are instructors around that will, for $5 or $10, give a little bit of ground school, never even fly with the pilot in an aircraft, and then sign off his log book as being competent. This sort of thing goes on at all levels of instruction through flying clubs and groups such as the Civil Air Patrol.

I find the situation very disheartening from two points of view. First, as the manager of a flight department and Chief Pilot for a fairly large FBO, this unorthodox competition is tough to take. People more interested in what appears to be the cheapest way of doing something, rather than the best way, gravitate toward these wayward instructors and organizations. I don't mind competition as long as they have to follow the same path we must to be in business. The licensed operators in this state are taxed by the Federal

government, the State, and usually in some form by the local municipality. They are subject to fines for uncrossed T's and undotted I's by the FAA, the FCC, CAB, U. S. Customs, and the Internal Revenue Service. They are also liable to loose one of their licenses to the State for similar offenses; are agitated by inspectors, SWAP teams, policemen and bullies; are aggravated because no one spends any time checking on operations or people thought to be operating illegally, either on a charter basis or instruction on the side. Do you know of anyone that has ever been asked if he received a bi-annual flight review? I don't. If you do know of someone, was it a 'Backyard Bi-Annual or an upfront Bi-Annual, and did anyone check that?

My second point is from an instructor's standpoint. I feel the way some instruction is handled degrades the profession. There are very few career instructors because there is very little money in it - not because there shouldn't be more and better pay, but because instruction can always be obtained cheaper in the 'backyard'! I don't think it's anything an instructor's union can handle - they have tried many times and failed. It must be regulated by a higher authority and then kept under control. I have no sympathy for part-time $4 or $5 per hour instructors who already earn $12,000 to $18,000 per year at a regular job and then hold the pay scale for a full-time instructor to $8,000 per year.

I would like to see in the regulations something stating that all dual for primary and advanced ratings and Bi-Annual Flight Reviews should be obtained through FAR Part 61 or 141 Flight schools licensed by the State of Minnesota. (If this is not possible, perhaps a State cannot regulate such an action, and it would have to be done by the Federal government.) I would like to see something established for examining instructors more closely when their license comes up for renewal, especially if they are not associated with a school.

There are too many regulations that regulate and strangle the legal, licensed operator and no regulations to govern the outlaws in the industry. The present regulations do nothing but cripple and maim the businessman, the one that is concerned with growth in aviation; and they enhance the 'backyard' instructor or Air Taxi operator.

Thanks for taking the time to read these comments.

Sincerely,

Timothy J. Harristhal

Timothy J. Harristhal
Chief Pilot, Mesaba Aviation
Manager, Mesaba Airlines

EXHIBIT L-1

NSP

NORTHERN STATES POWER COMPANY

MINNEAPOLIS, MINNESOTA 55401

December 2, 1975

State of Minnesota
Department of Aeronautics
Holman Field
St Paul, Minnesota 55107

Attention: Lawrence E McCabe, Commissioner

COMMENTS ON PROPOSED AMENDMENTS TO MDA
Rules and Regulations

The notice of public hearing dated October 20, 1975, concerning "the matter of the proposed adoption of Amendments to the Rules and Regulations of the Department of Aeronautics of the State of Minnesota" advised that statements or briefs may be submitted without appearing at the hearing and will be accepted for a period of twenty (20) calendar days following the close of the hearing. I understand the hearing was held, as noticed, on November 20, 1975, thus the record remains open to receive written testimony thru December 10, 1975. I am sorry that previous commitments prevented our attendance at the public hearing and indeed appreciate this opportunity to provide our written comments which I therefore request be accepted as part of the hearing record.

We are particularly concerned with proposed Aero 10 (f)(2) which states "Zone A shall contain no powerlines, --." It is unclear as to whether the term powerlines applies to underground as well as overhead. The land use safety Zone A designates use of land in the approach zone from a safety standpoint and it would appear the exclusion of underground lines from this area would have no effect on air safety aspects. Preclusion of powerlines without differentiating between overhead and underground powerlines seems excessively restrictive. It appears that this oversight could be easily corrected by definition.

There are many critical demands for electrical energy in the vicinity of airports that require reliable sources of large quantities of energy. Eliminating the possibility of crossing Zone A with a powerline could restrict the serving of these critical loads, which could include the airports requirements. In many instances re-routing of overhead powerlines or undergrounding will result in substantial incremental cost. In fact, in certain instances direct customer cost for new service may be significantly affected and a "contribution in aid of construction" could conceivably be required of an air terminal facility and/or other customers in order to receive electrical power. It is also conceivable that the routing of powerlines could take advantage of topographic features i.e., hills, land depressions, wooded areas etc. The absolute preclusion of powerlines will unnecessarily restrict good planning practices and cause a totally unnecessary expenditure of financial and natural resources and thus represents a hardship. It has been our practice to review proposed projects which are planned in the vicinity of airports with your agency. At the very least I urge that judgment be reserved for "case by case" review and not automatically eliminate all overhead construction thru over-regulation.

It is unclear whether the proposed addition of exclusions in Zone A of powerlines applies to future installations or whether it includes existing facilities as well. There are locations where existing facilities would fall within Zone A. If NSP were asked to relocate those facilities, substantial costs would be involved. If relocation of our facilities is necessary, we require reimbursement of all costs associated with these changes.

As you are aware, obstructions to airspace are generally lighted or marked in accordance with recommended procedures. In certain instances where our facilities have a potential impact on the use of airspace or on air navigational interests,

NSP has gone beyond the basic requirements of existing regulations. For example, certain river crossings which represent a potential hazard, particularly for low flying vertical take-off aircraft, although not required, have been properly marked thru installation of spherical markers. This effort includes a number of transmission lines some of which are referenced in the attached letters from the Minnesota Department of Aeronautics dated October 23, 1973, and the Federal Aviation Administration dated March 17, 1975. Installation of the various NSP Co. facilities and related marking or lighting has been carefully coordinated with the State Department of Aeronautics.

We do not feel it is appropriate for the agency to impose unnecessary regulations which would cause severe and unnecessary economic cost to the utility and its customers and even more important, hamper NSP in serving critical loads in and adjoining the airport area.

We feel that the FAA regulations provide adequate protection to the safety of aircraft and that previous adoption of the FAA regulations by the State of Minnesota offers this protection.

Therefore, we respectfully request that the agency not add the term powerlines to the excluded use in Aero 10 (f)(2).

G V WELK, Manager
Regulatory Activities

alm

Attachment

EXHIBIT L-2

ADMINISTRATION BLDG.
ST. PAUL DOWNTOWN AIRPORT
(HOLMAN FIELD)
SAINT PAUL 55107
TELEPHONE: 222-4741

STATE OF MINNESOTA
DEPARTMENT OF AERONAUTICS

OCT 25 1973

ENGINEERING VICE PRESIDENTIAL STAFF DEPARTMENT #0327

	AVD			BWC	
	FCW			TRC	
	MIA			EAH	
	JUB			RDJ	
	RSM		2	WEJ	
	RWM			JRP	
	AGS		6	ERS	
	FFS		4	LRS	
1	GVW				
PLEASE HANDLE			FILE		
RETURN TO					

October 23, 1973

Mr. G. V. Welk
Regulatory Activities
Northern States Power Company
414 Nicollet Mall
Minneapolis, Minnesota 55401

c.c. - EL Felton 10/25/73

Dear Mr. Welk:

Subject: Marking of Overhead Powerline Crossings

The State of Minnesota Department of Aeronautics, on behalf of the aviation public, would like to thank you and your company for your deep concern for aviation safety.

You have expressed this concern by your dedicated efforts in regard to the marking or possible relocation of overhead powerlines that could possibly be hazardous to aeronautical operations. Your recent undertaking to inspect and mark existing powerlines crossing the Mississippi and St. Croix Rivers involved a great deal of planning, innovation, and expense on the part of NSP. Such effort is very commendable.

Our staff has always been very happy to work with your cooperative personnel on this program of powerline marking and is looking forward to continuing this very fine relationship in the future. Once again we would like to say thank you for your very outstanding effort.

Sincerely,

Lawrence E. McCabe
Commissioner of Aeronautics

LEM:JB

cc: Elmont C. Ward

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

EXHIBIT L-3

MAR 17 1975

GREAT LAKES REGION
2300 EAST DEVON AVENUE
DES PLAINES, ILLINOIS 60018

MAR 13 1975

Mr. G. V. Welk
Assistant Manager
Northern States Power Company
414 Nicollet Mall
Minneapolis, Minnesota 55401

Dear Mr. Welk:

This letter is to express the sincere appreciation of the Federal Aviation Administration, for your earnest concern for the aviation community through the action taken in obstruction lighting the five supporting structures of your 345 KV transmission line, located immediately east of Flying Cloud Airport in Eden Prairie, Minnesota. Although Northern States Power Company realized extra expense, workload and inconvenience by this action, you may rest assured you have the deepest respect of the aviation interests using the Flying Cloud Airport.

With such cooperation and concern as displayed by Northern States Power Company in this matter, I am certain the FAA's responsibility to ensure the safety of aircraft and efficient utilization of navigable airspace will be a pleasant one.

Sincerely,

Ralph L. Frick

RALPH L. FRICK
Chief, Airspace and Procedures Branch, AGL-530

Copy sent to:

B A Richard
G R Coleman
R O Duncanson
E L Felton
H C Hanson

GVW/lmj 3/18/75

EXHIBIT M

St. Cloud Aviation, Inc.

ST. CLOUD MUNICIPAL AIRPORT

BOX 1211

ST. CLOUD, MINNESOTA 56301

December 2, 1975

Mr. Lawrence McCabe
Commissioner of Aeronautics
Department of Aeronautics
Administration Building
St. Paul Downtown Airport
St. Paul, Minnesota 55107

Dear Mr. McCabe:

I was not able to attend the public hearing that was held to review the rules and regulations of the State of Minnesota, Department of Aeronautics because of the blizzard conditions that existed. It was impossible to fly or drive from St. Cloud on that morning.

I wish with this letter to voice strong opposition to Aero 17. I will not continue to pay the City of St. Cloud sums of money for use of the airport facilities if I can operate my business from an off-aiport location. And, you can assume what this City would say about that kind of situation. They would be very angry. Furthurmore, I could never continue to effectively compete if I have to contend with someone who operates from a downtown location and avoids any investment and expense because of an airport location.

I also recommend an addition or change to Aero 19. The FBO needs some protection from these "Quicky Ground Schools" from outside the State. There is non-resident fees for hunting in this State, it can not be too absurb to demand like treatment of non-resident ground schools.

Aero 22 should retain some language that identifies leasing as a commercial operation. Money will be exchanged. If that is not commercial, I can not guess what ever will be!

I would suggest an aggressive set of state aeronautical regulations that would protect and promote the State's Fixed Base Operators. The State Department of Aeronautics should realize healthy operators produce healthy airports. And, this State needs good healthy airports with some activity.

Sincerely yours,

Thomas Horn J. - President

EXHIBIT N

MINN. DEPT. OF
DEC 5 1975

MESABA AVIATION "By Land or By Sea"
2002 AIRPORT ROAD • GRAND RAPIDS, MINNESOTA • PHONE 326-6657
A DIVISION OF HALVORSON OF DULUTH, INCORPORATED

December 3, 1975

Department of Aeronautics
Commissioner
St. Paul Downtown Airport
St. Paul, Minn. 55107

Commissioner:

Regarding the proposed changes in the state aeronautic regulations, I have a few comments to make. I notice the copy of the regulations is apparently a corrected copy of the old regulations. I also notice that alot of the wording has been excluded which is, I think, a good accomplishment. I see that it is proposed that Aero 13 be deleted in its entirety. I think this is a good idea, but I am wondering what brought it about. Generally the regulations seem to be realistic. I have itemized the few things on which I have questions below.

(1) The first item on the regulations is a definition of Aerobatic Flight. One comment I will make on this is that every time somebody practices stalls, they are going to violate the definition of aerobatic because there is no way that anyone is going to avoid getting the nose up or down attitude of 45° relative to the horizon at some time or another during stall practice. I don't know what the intent of the regulation is in this case, but I am certain that the rule will be violated continually.

(2) I am not in complete agreement with the licensing of a public seaplane base. For one thing, I do not believe that seaplanes generally require so much more take-off area than land planes, which can operate from 2500 feet according to the regulations. Under "f" size it states the minimum effective length should be atleast one mile, and I wonder what the interpretation of minimum effective length is. I am sure that when you read my comments you are going to feel that I am prejudiced, which I probably am. Anyway, I think seaplane licensing could stand a little more discussion and not from only arm-chair pilots or land plane pilots.

CESSNA DEALER
Flight Instruction • Charter Service • Aerial Spraying • Land and Seaplanes • Complete Maintenance • Air Ambulance • Radio Sales - Service • Distributors

(3) In regards to ground schools I noted that the intention is to delete completely Aero 17 from the proposed amendment, and my comment on this is that this will only encourage outside ground school operations in the state of Minnesota. I realize that somehow a more aggressive ground school should operate, similar to the AOPA schools, promoted by the Minnesota Flight Operations and MATA. I certainly don't want to encourage further AOPA activity or any other ground schools that are located around the country. They are just taking dollars away from Minnesota operators. I think we should keep our regulations tight and keep them tighter in this regard.

(4) In regard to commercial operations it seems like the regulations are beating around the bush about prohibiting flight instructors from free-lance operations. I think that any school would be willing to put a flight instructor to work on a part-time basis training students, provided he can keep up his proficiency and is doing a proper job of instructing. It seems that each instructor who is irresponsible and wants a quick buck heads for the tendency toward moonlighting operations. I think a good many of these instructors are not capable of doing the right job and are a thorn in the side of operators wherever they work.

I think these facts have to be faced squarely, and we should protect the rights of the local operators. These are the only comments I have.

Yours very truly,

Gordon K. Newstrom
Airport Manager

EXHIBIT O

Minnesota Aviation Trades Association, Inc.

December 9, 1975

Mr. Larry McCabe
Commissioner of Aeronautics
Administration Building
St. Paul Downtown Airport
St. Paul, MN 55107

Dear Commissioner McCabe:

I am writing in regard to the proposed adoption of amendments to the rules and regulations of the Department of Aeronautics of the State of Minnesota.

The officers and Board of Directors of the Minnesota Aviation Trades Association met and discussed the proposed changes and are opposed to the following items:

Aero 17

Aero 17(i) relaxes the regulations to allow a commercial activity (which includes the operation of aircraft) to operate without having a base of operations on an airport. We strongly feel that this change would foster some of the illegal activities that the State Department of Aeronautics, the MAC and the legitimate FBO's have been attempting to curtail.

Those of us who operate on the airports in the State have been required to have a base of operations--and to allow a flight school to go into business by only tieing his airplane down at the airport is going to be creating unfair competition. As you know, the members of our association are not attempting to oppose competition--all we say is, let's have a set of minimum standards for a commercial operation and if a new operator wishes to engage in business, let him meet those standards along with everyone else.

To allow a flight school to operate on an airport without a briefing area and a dispatching office is contrary to Federal Air Regulation 141, in addition to being a poor operating practice.

Box 23144, Minneapolis, Minnesota 55423 Phone 869-7026

Leasing of Aircraft

Aero 17(r),(1) and (2) deletes all reference to leasing of aircraft as a definition of what constitutes a commercial operation. Aero 22 has also been modified in that all references to "lease or leasing" have been deleted from the regulations.

Our association strongly opposes this change, we feel that the leasing of aircraft most certainly is a commercial operation and as such should be required to be licensed and meet all the requirements of a commercial operation. This change again is contrary to the past efforts of the Department of Aeronautics, the MAC and the FBO's who have worked to curb illegal rental of aircraft.

Aero 19--Ground Schools

Our association has long opposed the present requirements for ground schools. All it takes is a $10 fee for any ground school in the country to travel into our state and be issued a commercial operation certificate.

The regulations should be amended to require any commercial operation in the State of Minnesota to maintain a permanent place of business in Minnesota. Justification for this change again lies with equal standards that have to be met by all who wish to engage in business.

We feel that it is in the best interests of the State of Minnesota to have a group of fixed-base operators who are sound financially in order to provide service to the flying public. With that in mind it seems only right that our state regulations should be written with certain standards that have to be met by all who wish to engage in a commercial activity related to flying.

We respectfully request that the above proposed changes to Aero 17 and 22 be dropped and that Aero 19 be modified as requested.

Yours very truly,

Curtis O. Erickson

Curtis O. Erickson
Chairman of the Board
Minnesota Aviation Trades Association

COE/sdb

STATE OF MINNESOTA

COUNTY OF RAMSEY

BEFORE LAWRENCE E. McCABE
COMMISSIONER OF AERONAUTICS

In the matter of the proposed adoption
of Amendments to the Rules and Regulations
of the Department of Aeronautics of the
State of Minnesota.

ORDER ADOPTING
RULES

The above-entitled matter came on for hearing before the Aeronautics Commissioner of the State of Minnesota on the 20th day of November, 1975, at 8:30 a.m. in the Veterans' Service Building, 20 West 12th Street and Columbus Avenue, St. Paul, Minnesota, after proper notice required by M.S. 1975, Section 15.0412, was served upon all persons, associations and other interested groups registered with the Secretary of State for that purpose.

After affording interested persons an opportunity to present written and oral data, statements and arguments, having heard all of the testimony, having considered all of the evidence adduced and upon the records, files and proceedings herein, and applicable statutory standards or criteria, and having confirmed the need for the above-captioned rules.

NOW, THEREFORE, IT IS ORDERED that these rules attached hereto and made a part hereof are adopted this 11th day of December, 1975, pursuant to authority invested in me by M.S. 360.

STATE OF MINNESOTA
DEPARTMENT OF AERONAUTICS

Lawrence E. McCabe, Commissioner

STATE OF MINNESOTA

COUNTY OF RAMSEY

BEFORE LAWRENCE E. McCABE
COMMISSIONER OF AERONAUTICS

In the matter of the proposed adoption of Amendments to the Rules and Regulations of the Department of Aeronautics of the State of Minnesota.

FINDINGS OF FACT

The above-entitled matter came on for hearing before the Commissioner of the Department of Aeronautics of the State of Minnesota on the 20th day of November, 1975, at 8:30 a.m. in Room D of the Veterans' Service Building, 20 West 12th Street and Columbus Avenue, St. Paul, Minnesota, after proper notice required by M.S. 15.0412, and other applicable law, was served upon all persons, associations and other interested groups registered with the Secretary of State for that purpose, and all persons who were then members of the Minnesota Legislature.

After affording interested persons an opportunity to present written and oral data, statements and arguments, having heard all of the testimony, having considered all of the evidence adduced and upon the records, files and proceedings herein, I find the following:

Aero 1--Definitions

The written statement of need is adopted to support the amended definitions. These amendments are needed solely for "housekeeping" reasons.

Aero 6--Airport Licensing, Airport Zoning, Obstructions to Air Navigation

The statement of need is adopted to support the amendments enacted. The changes are necessary primarily for housekeeping reasons. Former Aero 7 was incorporated into Aero 6 for convenience. Proposed Aero 6 (b) (1) concerning a three-year license for personal-use airports has not been adopted at this time, and will be the subject of future hearings. At the present time it was believed that such an amendment would result in a significant loss of agency supervision over personal-use airports.

Aero 7--Reserved for Future Use

Aero 7 has been incorporated into Aero 6 where it more properly belongs. Such an amendment was made purely for housekeeping reasons.

Aero 8--Licensing of a Public Airport

The statement of need is adopted in support of the reason for the changes in Aero 8. Changes were made primarily for housekeeping reasons and for greater clarity. In addition, certain changes were made to promote airport safety and to provide necessary facilities for airport users. Provisions concerning privately owned commercial airports were placed in a separate Aero (Aero 8A) for greater clarity.

Aero 8A--Licensing of a Privately Owned Commercial Airport

The statement of need is adopted to support the reason for promulgating Aero 8A. This is now a separate Aero which will promote clarity and easy cross-reference to other pertinent regulations.

Aero 9--Criteria for Determining Obstructions to Air Navigation

The statement of need is adopted to support the reasons behind amendments to Aero 9. Changes were necessitated to conform to FAA regulations, requirements and definitions.

Aero 10--Airport Zoning Standards

The statement of need is adopted to support the reasons behind amendments to Aero 10. Parts of Aero 9 are made part of Aero 10 since such parts are more applicable to zoning standards rather than licensing standards. Aero 9 (f) (2) restricts "exposed transmission lines" and is more precise than originally proposed because of inquiry from Northern States Power (Exhibit L-1) as to whether underground cables are prohibited.

Aero 12--Licensing of a Public Seaplane Base

The statement of need is adopted in support of this Aero. Changes were made primarily for housekeeping reasons. Certain facilities and equipment are required to promote safe and efficient seaplane and seaplane base operations.

Aero 12A--Licensing of a Privately Owned Commercial Seaplane Base

This separate Aero was promulgated to promote clarity as a distinct Aero in itself.

Aero 13--Seaplane Operations within the Seven-county Metropolitan Area

The statement of need is adopted to support the reasons behind Aero 13 (formerly Aero 12A). Certain housekeeping measures were taken to promote clarity and easy reference. Seaplane operations are authorized on Lake Alimagnet, Long Lake, Schmidt Lake and St. Alban's Bay in Lake Minnetonka because a re-examination of these lake situations and

their past safety record indicated such operations could be conducted safely (see Exhibit I).

Personal-use seaplane base permit holders are authorized, under safe conditions, to make one takeoff and one landing from such a base during restricted hours. Exhibit I also sets forth a need and a factual basis for such a policy.

Subparagraph (f) was included to note expressly that seaplane operations on certain frozen lakes are permitted. This is primarily a housekeeping matter.

Aero 13A--Unlicensed Landing Areas

Aero 13A (formerly Aero 13) was originally proposed to be deleted as a separate Aero and its provisions were proposed to be placed in various other Aeros. Closer examination leads to the conclusion that the provisions concerning unlicensed landing areas would be most clearly understood and referenced as a separate Aero.

Aero 14--Licensing of a Public Heliport

The statement of need is adopted. Changes were made primarily for housekeeping reasons and to conform with FAA regulations and definitions.

Aero 14A--Licensing of a Privately Owned Commercial Heliport

A separate Aero was established for clarity. Changes made primarily for housekeeping reasons.

Aero 16--Licensing of a Personal-use Landing Area

The statement of need is adopted to support Aero 16 as amended. Changes made primarily for greater clarity.

Aero 17--General Commercial Operations Regulations

The statement of need is adopted to support those sections adopted as proposed. Certain housekeeping changes were required for clarity.

The sections concerning aircraft accident investigations and reports was kept to comply with statutory requirements.

Proposed changes concerning "place of business" and leasing were not adopted at this time in light of the criticism set forth in the comments to the proposed regulations. Such changes will be further considered by the agency and will be the topic of future hearings.

Aero 18--Flight School

The statement of need is adopted to support amended Aero 18. Changes were made for housekeeping reasons, for greater clarity, and to conform to FAA requirements.

"Aeronautics instructors," as defined by statute, are exempt from such regulation and such an exemption is now properly noticed.

Insurance requirements are increased to reflect more realistic minimums and to protect more adequately those persons using flight school facilities.

Aero 19--Ground School and Aeronautical Correspondence School

The amendment to Aero 19 is required to more clearly specify which instructors are "qualified."

Aero 20--Reserved for Future Use

Former Aero 20 concerning approved schools is no longer enforced or necessary. Deletion of such standards and requirements is therefore required.

Aero 21--Aircraft Charter

The statement of need is adopted to support amended Aero 21. Changes were made primarily for housekeeping reasons and to update terminology. Insurance minimums were increased to more adequately protect persons involved with aircraft charter operations.

Aero 22--Aircraft Rental or Leasing

The statement of need is adopted to support the proposed changes to Aero 22 which were adopted. The proposed changes concerning "leasing" were not adopted at this time due to the comments submitted, and will be further considered. Insurance minimums were increased to more adequately protect those persons concerned with aircraft rental or leasing.

Aero 23--Air Ambulance Service

The statement of need is adopted in support of Aero 23 as amended. Changes were made primarily for housekeeping purposes and to conform to CAB requirements and FAA terminology. Department of Health approval prior to licensing is required in the interest of promoting safe and healthful ambulance service.

Aero 24--Aerial Spraying or Dusting

The statement of need is adopted to support amended Aero 24. More practical and realistic experience standards are adopted. Safety equipment as specified will promote more safe operations. Insurance requirements are increased to more adequately protect persons and property concerned with aerial spraying.

Aero 25--Aircraft Servicing, Maintaining and Repairing

The statement of need is adopted in support of this amended regulation. Definitions are updated to conform to the FAA regulations. Changes were made for housekeeping reasons. Insurance requirements were increased to more adequately protect those persons and property concerned with aircraft maintenance.

Aero 26--Commuter Air Carriers

Some proposed changes were not adopted because of conflict with statutory wording, and may be the subject of future proposed legislative amendments. Terminology is changed to reflect modern usage and FAA and CAB requirements.

Aero 33--General Flight Rules

The statement of need is adopted to support amended Aero 33. When parachutists wish to form a star of six to ten people, they often need to use more than one aircraft. They must jump out of the aircraft at approximately the same time, and as close to each other as possible--hence, the required amendment to Aero 33 (f). Aero 33 (k) (5) is taken from former Aero 12 (f) for housekeeping purposes.

Aero 36--Safety Regulations for Parachuting

The amendment to Aero 36 (d) (1) is required for clarity and to eliminate ambiguity as to the extent and nature of the permission granted by the Commissioner. Amended 36 (f) provides for a more equitable physical test for parachutists.

Aero 38--Parachuting Schools and Clubs

Insurance minimums are increased to more adequately protect the persons and property involved in the operations of parachuting schools and clubs.

STATE OF MINNESOTA
DEPARTMENT OF AERONAUTICS

Lawrence E. McCabe

Lawrence E. McCabe, Commissioner