

Minnesota Attorney General: Administrative Rules Proceedings

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August 20, 2018

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 Department of Aeronautics
(Agency or Board)

Regulation No. Aero 1 thru 43

Subject: Miscellaneous (amended)

Department of Administration
Publication, Central Services Division
Documents Section
140 Centennial Office Building
St. Paul, Minnesota 55155
Telephone: (612) 296-2874

FILED
RICHARD L. BRUBACHER
Commissioner of Administration

MAY 29 1974 3:35 pm

BY Eda Staudenmaier EJ
AUTH. SIGNATURE

Stamped and filed with the Secretary of State 5-29-74

Rev. 9-72

ADMINISTRATION BLDG.
ST. PAUL DOWNTOWN AIRPORT
(HOLMAN FIELD)
SAINT PAUL 55107
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STATE OF MINNESOTA
DEPARTMENT OF AERONAUTICS

May 13, 1975

TO: Mike Miller
Attorney General's Office

FROM: C. Blaine Harstad CBH

SUBJECT: Rules and Regulations 1974

Some time ago you called this department to get copies of various documents.

Enclosed is a photostat of our letter to you dated May 9, 1974. Also enclosed are:

1. A copy of the regulations as proposed.

2. A copy of the regulations as finally adopted.

3. A copy of the transcript of the hearing.

We also have a voluminous booklet containing all the formal documents. We can make a copy of this booklet if it is required.

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STATE OF MINNESOTA
DEPARTMENT OF AERONAUTICS

May 9, 1974

Mr. J. Patrick Wilcox
Special Assistant Attorney General
Department of Administration
208 Administration Building
St. Paul, Minnesota 55155

Dear Mr. Wilcox:

Subject: Rules and Regulations of the Department of Aeronautics--Proposed

Pursuant to Chapter 3 of the Rules and Regulations of the Attorney General we enclose the following:

1. Three copies of the regulations, as proposed.
2. Five copies of the regulations as adopted.
3. A transcript of the hearing.
4. A booklet containing all formal documents: order for hearing, notice of hearing, Secretary of State's listing, affidavit of mailing, statements of need, findings of fact, and order adopting rules.

Also included in the booklet are letters received, which, together with the transcript, constitutes the "Record."

We request that you approve the rules and file them with the office of the Secretary of State.

We also enclose, for your convenience, a copy of the 1969 edition of the rules.

In accordance with Publication Rule 13, I assume you will file one copy of the new rules with the Secretary of State's office, one copy with the Commissioner of Administration, and one copy with the Documents Section. You may retain the fourth copy and return the fifth copy to us complete with filing information. If you would like this department to take care of any of those details, please let me know.

Pursuant to Publication Rule 13, I enclose two extra copies of the Index and two extra copies of the Table of Contents. Apparently these are for the Commissioner of Administration and the Documents Section.

I am sending a copy of this letter to Eda Staudenmaier of the Documents Section for her information; and by this letter we are informing her that we would like to order one hundred copies of the regulations when printed. The cover of our present 1969 edition is blue; therefore, a different color should be used for this 1974 edition of the regulations.

Please return the formal documents and the transcript to us after you have completed your review.

Sincerely yours,

C. Blaine Harstad

C. Blaine Harstad
Special Assistant Attorney General
for The Department of Aeronautics

CBH:ER

Attach.

CC to Eda Staudenmaier

MINNESOTA ADMINISTRATIVE

RULES AND REGULATIONS

Rules and Regulations of

THE DEPARTMENT OF AERONAUTICS

1974 Edition

State Seal

Cite the rules and regulations as:
(for example)

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RULES AND REGULATIONS

of the

DEPARTMENT OF AERONAUTICS

PROMULGATED BY

COMMISSIONER OF AERONAUTICS

By Order Dated

May 8, 1974

Approved as to form and legality _____ by Attorney General

Filed with Secretary of State and
Commissioner of Administration, _____

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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 publiched 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 systems 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 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 regulations 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, AIRPORT REFERENCE POINTS, 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 areas 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 ans 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 light 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 usable 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 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.

(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 non-precision 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 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 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 on 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 also 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 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 Commissioner. If the base is engaged in night operations, such hazards shall be clearly marked with lights from 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 shore-line 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

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
- Pelican Lake
- Beebe 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

Hennepin County (continued)

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

(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 make 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 perserver 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 so 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.

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, Subd. 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 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 achool, 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 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 the 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 aeronautical 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, and 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.

(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 adquate 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 if 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 stetcher 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 recommendations. 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 operations 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 a 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 "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 owner 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 is 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 jumpting, 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, 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, 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.

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 the 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 sudent 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 rulws; 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 in 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.

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 equipment 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 horizongal 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 a 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 radio equipment only allows 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 underway 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 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 inspection 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 Fl-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. A 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 parachut jump and no pilot in command of an aircraft may allow any person to make a parachute jump from that aircraft it 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 ground.
High: over 20,000 feet above 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) High 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, Suvdivision 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 (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 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 is necessary, but such school or organization, however, must comply with Aero 38 (a) (3) (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 empower 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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NOTE: The numbers given in the Index indicate the regulation numbers found in Administrative Rules and Regulations (Minnesota Department of Aeronautics). Regulation numbers begin with 1 and continue in numerical order. In the Index the items in parentheses ( ) following the regulation numbers represent regulation subitems.

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STATE OF MINNESOTA
DEPARTMENT OF STATE
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MAY 29 1974 - 3:30 pm
Arlen I. Erdahl
Secretary of State

PROPOSED AMENDMENTS TO THE RULES AND REGULATIONS OF THE DEPARTMENT OF AERONAUTICS OF THE STATE OF MINNESOTA, DATED NOVEMBER 13, 1973

In these regulations, the language to be omitted is crossed out and the new language to be added is underscored.

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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 expedition flow of air traffice.

(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 atomospheric conditions.

(f) Balloon. An aircraft, excluding moored ballons, 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 light 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 Americal 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, ~~Secondary~~ 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. ~~Secondary~~ 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 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

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

(a) Except as otherwise provided by statute, the Commissioner or any employee of the Department designated by him, shall conduct hearings in the manner provided herein.

(b) A hearing shall be set by written notice for a time not earlier than ten days after the notice is served by deposit in the United States mail, registered and addressed to each party at his residence or place of business.

(c) The notice shall contain a short statement of the facts or of the charges made and the laws or regulations under which the controversy or violation is alleged to have occurred.

(d) Any person desiring a hearing in accordance with Minn. Stat. 1957, Section 360.019, Subdivision 2, as amended, shall notify the Commissioner in writing.

(e) The hearings shall be public and the Commissioner and parties may be represented by counsel and may produce witnesses and documentary evidence, cross examine witnesses and submit arguments and rebuttal evidence. The Commissioner may subpoena witnesses upon his initiative or upon request of any party.

(f) The Commissioner may require statements to be in writing and may require additional copies of exhibits to prepare a record.

(g) If a transcript is required, the cost of preparation shall be borne by the party requesting or bringing appeal proceeding.

(h) If a party fails to appear at a hearing he requested, he shall be deemed to have waived his right to a hearing.

(i) Examination of evidence by the Commissioner. The Commissioner or any employee of the Department designated by him may act as a hearings examiner to hold hearings. Whenever in a contested case the Commissioner has not heard or read the evidence, the decision if adverse to a party to the proceeding other than the Commissioner himself, shall not be made until a proposal for decision including the statement of reasons therefor has been served on the parties, and an opportunity has been afforded to each party adversely affected, to file exceptions and present argument to the Commissioner who shall personally consider briefs or arguments.

(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, UNLICENCED LANDING AREAS, RESTRICTED LANDING AREAS, AIRPORT REFERENCE POINTS, 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 areas 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, ~~1971~~ 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 ~~25~~ 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 ~~runway~~ end of a hard-surfaced runway (100 feet beyond a ~~landing strip~~ 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 150 to the ~~nearest edge of a landing strip~~ 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 1-9)~~ (a 1-10).

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

(a) Aero 9 and 10 set forth the minimum zoning standards and the criteria for determining obstructions to air navigation.

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

If the Commissioner holds a hearing on zoning regulations for the reasons and in the manner set forth in Minn. Stat. 360.065, Subd. 1, then and in such case the Commissioner may adopt zoning regulations more restrictive than the minimum zoning standards set forth herein or in any other applicable law.

The runway lengths used in Aero 9 are based on an airport elevation above sea level, a temperature of 59° Fahrenheit, and a runway gradient of zero degree. Standard corrections for elevation, temperature, and runway gradient must be applied.

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

(b) Approach Zones to Instrument Landing Runways. Instrument Landing Runways, as used herein, refer to those runways equipped with a precision landing aid, such as instrument landing system (ILS), ground controlled approach (GCA), or precision approach radar (PAR). The approach zone to a runway designated for instrument landing operations (Aero 9 (n)) consists of the area embraced within the following description:

(1) Length. The zone has a length of 50,000 feet beginning 200 feet outward from the end of the runway and extending outward, ending at a point 50,200 feet from the end of the runway on the extended centerline of the runway.

(2) Width. The approach zone is symmetrically located with respect to the extended runway centerline and has a total width of 1,000 feet at the end adjacent to the runway. The area flares uniformly to a total width of 4,000 feet at a point 10,200 feet outward on the extended centerline of the runway and to a total width of 16,000 feet at a point at the end of the additional 40,000 foot section.

(c) Approach Zones to All Other runways. The approach zone to a runway other than those designated in Aero 9 (n) consists of the area embraced within the following description:

(1) Length. Such zone has a length of 10,000 feet beginning at a point 200 feet outward from the end of the runway and extending outward, ending at a point 10,200 feet from the end of the runway on the extended centerline of the runway. On unpaved landing areas the zone has a length of 10,000 feet beginning at a point 100 feet outward from the end of the marked landing area and extending outward, ending at a point 10,100 feet from the end of the area on the extended centerline of the area.

(2) Width.

(aa) If such a runway is more than 3,200 feet in length, then and such case the approach zone is symmetrically located with respect to the extended runway centerline and has a total width at the end adjacent to the runway of 500 feet flaring out gradually to a width of 2,500 feet at the outer edge of the approach zone.

(bb) If such a runway is less than 3,200 feet in length, then and in such case the approach zone is symmetrically located with respect to the extended runway centerline and has a total width at the end adjacent to the runway of 250 feet flaring out gradually to a width of 2,500 feet at the outer edge of the approach zone.

(d) Approach Surface. The approach surface is an inclined plane located directly above the approach zone.

(e) Horizontal Surface. The horizontal surface is a plane, circular in shape, with its height 150 feet above the established airport elevation and having a radius from the airport reference point as follows:

(1) 5,000 feet for an airport with its longest runway not more than 3,200 feet in length.

(2) 7,000 feet for an airport with the longest runway more than 3,200 feet but not more than 6,000 feet in length.

(3) 11,500 feet for an airport with the longest runway more than 6,000 feet but not more than 7,500 feet in length.

(4) 13,000 feet for an airport with the longest runway more than 7,500 feet in length.

(f) Conical Surface. The conical surface extends upward and outward from the periphery of the horizontal surface with a slope of 20:1 measured in a vertical plane passing through the airport reference point. Measuring radially outward from the outer limits of the horizontal surface, the conical surface extends as follows:

(1) For a horizontal distance of 3,000 feet to an elevation of 300 feet above the airport elevation for an airport with its longest runway not more than 3,200 feet in length.

~~(2) For a horizontal distance of 5,000 feet, to an elevation of 400 feet, for an airport with it longest runway more than 3,200 feet, but not more than 6,000 feet in length.~~

~~(3) For a horizontal distance of 7,000 feet, to an elevation of 500 feet, for an airport with it longest runway more than 6,000 feet in length.~~

~~(g) Transition Surfaces. The transitional surfaces are inclined planes with a slope of 7:1 measured upward and outward in a vertical plane at right angles to the centerline of the runway. The transitional surfaces, symmetrically located on either side of the runway, extend upward and outward from a line on either side of the runway which is parallel to and level with the runway centerline. These parallel lines are at a horizontal distance from the runway centerline equal to one-half of the minimum width of the approach area. Transitional surfaces extend from the edges of all approach surfaces upward and outward to the intersection with the horizontal surface, or the conical surface. The approach surfaces for instrument runways projecting through and beyond the limits of the conical surface have a 7:1 transitional surface extending a distance of 5,000 feet measured horizontally from the edge of the approach surfaces and at right angles to the runway centerline.~~

~~(h) Slope and Glide Ratios. Wherever reference is made to a glide or slope ratio, the first number of such ratio refers to the horizontal distance and the second number shall refer to the vertical distance. The slope of the approach surface beginning at a point 200 feet from, and the same elevation as, the end of each runway, not intended for instrument landing, extended, is 20:1 for runways not more than 3,200 feet in length. For all other runways listed in (c) the slope is 40:1. For all runways listed in (b) the slope is 50:1 for the first 10,000 feet and 40:1 for the remaining 40,000 feet.~~

(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 usable 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 a 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 the landing, taking off or taxiing of aircraft.

(7) Instrument Landing Runway. A runway equipped or to be equipped with a precision electronic navigational aid, such as an Instrument Landing System (ILS) or Precision Approach Radar (PAR).

(8) Noninstrument Landing Runway. A runway other than an instrument runway.

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

(10) 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

(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 instrument landing runways.

(dd) 500 feet for noninstrument runways with a specially-prepared hard surface or planned hard surface.

(ee) 250 feet for all other 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 instrument landing runways.

(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) Instrument Approach Surface. An imaginary surface longitudinally centered on the extended centerline at each end of an instrument landing runway. The inner edge of the instrument approach surface is at the same width and elevation as, and coincides with, the end of the primary surface. The 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.

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

(aa) 40:1 for noninstrument runways with specially-prepared hard surfaces or planned hard surfaces; or

(bb) 20:1 for other noninstrument runways.

The noninstrument approach surface expands uniformly to a width of:

(cc) 2,500 feet for runways with specially-prepared hard surfaces or planned hard surfaces; or

(dd) 2,250 feet for other noninstrument runways

at a horizontal distance of 10,000 feet, then continues at the same rate of divergence to the periphery of the conical surface.

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

(e) ~~(j)~~ 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. ~~This subdivision applies only to the approach areas of the runways listed in Aero 9 (n).~~

(f) ~~(k)~~ 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 ~~reference point~~ 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) ~~(l)~~ Objects whose elevation will increase a precision or nonprecision ~~an~~ instrument approach minimum flight altitude will be considered obstructions.

(i) ~~(m)~~ 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.

~~(n) Instrument runways in Minnesota.~~
~~Chisholm-Hibbing Airport--Runway 31 and 13~~
~~Duluth International Airport--Runway 9 and 27~~
~~International Falls (Falls International Airport)--Runway 13 and 31~~
~~Minneapolis/St. Paul International Airport--Runway 29L and 11R~~
~~(Wold-Chamberlain Field)- Runway 4 and 22~~
~~Rochester Airport--Runway 31 and 13~~
~~St. Paul Downtown Airport (Holman Field)--Runway 12 and 30~~

(j) ~~(o)~~ 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 ~~to the minimum en route elevation~~ 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 meausred 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) ~~(p)~~ 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 sequency. ~~Aero 9 (p) shall become effective January 1, 1970.~~

Aero 10 Land Use Zoning Standards

(a) Zone A. Areas restricted to the type of use designated "ZONE A" may be used for agricultural purposes but must not have housing, places of public assembly, churches, hospitals, schools or be used in such a manner as might attract or bring together an assembly of persons thereon. Permitted uses include light recreational areas without stadia or heavy structures, and auto parking areas.

(b) Zone B. Residences in Zone B are restricted to one family residences per five acre lot. Prohibited uses include churches, hospitals, schools, places of public assembly, and activities which might attract or bring together an assembly of persons.

(c) Zone C. The only restriction on the use of Zone C is that residences may not be built except single family dwellings on one acre lots.

Heavy smoke or bright lights which are hazardous to the landing or taking off of aircraft are not permitted in Zones A, B, C, or D.

(d) In the approach zones of all instrument runways and of noninstrument runways 3,800 feet or more in length, Zone A extends 1 1/2 miles from the end of the runway, Zone B extends from Zone A to 2 miles from the airport boundary.

(e) In the approach zones of noninstrument runways less than 3,800 feet in length, Zone A extends one mile from the end of the runway and Zone B extends from Zone A to 2 miles from the end of the runway and Zone C extends from Zone B to 2 miles from the airport boundary.

(f) In other portions of areas surrounding airports, if the airport has a runway 3,800 feet or more in length, then Zone C extends a distance of 1/2 mile from the airport boundary, Zone D extends from Zone C to one mile from the airport boundary.

(g) In other portions of areas surrounding airports, if the airport has a runway less than 3,800 feet in length, Zone D extends from the airport boundary out one mile.

(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 length of the primary surface or planned primary surface.

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

(3) Safety Zone C. All that land which is enclosed within the perimeter of the norizontal 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 1st Floor Bldg. Area	1st Floor Bldg. Area (sq. ft.)	Max. Site Population (15 persons)
3	4	12:1	10,900	45
		12:1		
4	6	10:1	17,400	60
		10:1		
6	10	8:1	32,600	90
		8:1		
10	20	6:1	72,500	150
		6:1		
20	and up	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 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 - ~~Airport Reference Points, Airport Classification and Elevation Above Sea Level~~

RESERVED FOR FUTURE USE

COMMENT: The existing Aero 11 identifies all of the public airports in Minnesota, gives their elevation above sea level, lists them as Key, Secondary or Landing-strip airports, and gives their airport reference points. Aero 11 is deleted in its entirety.

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 also 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 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 ~~Conservation~~ 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 Commissioner. If the base is engaged in night operations, such hazards shall be clearly marked with lights from 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-sown 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 as set forth:

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

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
- Pelican Lake
- Beebe 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

Hennepin County (continued)
Lake Minetonka, 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

(c) Restrictions as to White Bear Lake and Lake Minnetonka. All seaplane operations are prohibited from 9:30 a.m. to 5 p.m. on Saturdays, Sundays and national legal holidays between May 15 and October 1 on the following public waters:

(1) Lake Minnetonka and all bays and lakes therein.
(2) White Bear Lake 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 ~~restricted~~ 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 perserver for the pilot and each passenger.

Aero 14 Public Heliport, ~~Vertical Takeoff and Landing (VTOL) Area~~ 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.

~~(b)~~ (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, crosswind 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.

~~(c)~~ (2) Access Paths. A public heliport must have at least two access paths. At least two of the access paths must be so 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.

~~(d)~~ (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.

~~(e)~~ (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 ~~in the vicinity of the fuel pump or on the flight line if fuel is dispensed~~ whether or not fuel is despensed on the site. It must be a minimum of ten pounds of carbon dioxide or equivalent.

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

~~(g)~~- (6) To afford adequate protection to the public, a fence or barricade or other adequate ~~barriers~~ 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.

~~(h)~~- (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.

COMMENT: All of the regulations regarding VTOL's and STOL's are under Aero 14 concerning public heliports. He have no specific regulations for VTOL's and STOL's other than those set forth there.

Aero 16 ~~Restricted Landing Areas~~ Personal-use Landing Areas

~~(a) Personal use Landing Field. A personal use landing field shall mean any area, on land or water, which is used by the aircraft owner for noncommercial purposes, except that spraying and dusting and predator hunting, if permitted, may be conducted from a personal use landing field. A personal use landing field may be granted a license when it is shown that compliance is made with the requirements stated herein. Every personal use landing field must have a license.~~

~~(b) Hazards. A personal use landing field shall not impose undue hazards upon adjoining property or its occupants, or endanger the users or use of existing surface communication or transportation.~~

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

~~(d) Use. A personal use landing field shall not be held out as available for public use or caused or authorized to be displayed on any map available for public distribution.~~

~~(e) A personal use landing field for the exclusive use of helicopters is licensed as a personal use heliport. Personal use heliports must meet the standards in Aero 14 (b) and (d), and shall have at least one access path meeting the standards of Aero 14 (e).~~

~~(f) 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. Where 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.~~

(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 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 set forth in Aero 16.

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 hunting and 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, Subd. 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 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 licencsee.

(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 operation 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 ~~CAB Form 453~~ 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 ~~aircraft~~ operation must be ~~from~~ 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 Taxation, 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 ~~engaged in~~ taking place. ~~which certificate shall be registered with the Department of Aeronautics, as required by the laws of this state.~~

(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.~~101~~ 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) No commercial operations license shall be required of a person who owns his aircraft and leases his aircraft to a party who holds a commercial operations license under Chapter 3.~~

(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 ~~refresher~~ dual flight time, ~~check 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 ~~University of Minnesota~~ 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 sure 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 the 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 ~~University of Minnesota~~ 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 aeronautical 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, and instrument course--40 hours.

(bb) An outline of the subject matter to be included in each course and the approximate sequency 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 sequency 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 operation specifications shall be attached to the application.

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

~~(c)~~ (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.

~~(d)~~ (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 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 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 any aircraft, that the lessee thereof is properly licensed and rated to fly the type of aircraft to be rented, 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 ~~a~~ his commercial operations license must hold insurance contract 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 stetcher 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 Recommendations. 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 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 ~~including bench vise, air compressor, welding torch, spray gun, and bench grinder~~. At least one licensed "A & P" mechanic or one "A" mechanic and "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

COMMENT: The existing Aero 27 has been reorganized and renumbers in the manner set forth below. We hope that this new format will make Aero 27 more easily understood.

(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 clul

(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 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.

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

(6) The rights of each member to the assets of the club, stated by percentage, 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 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 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, reads as follows:

" '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 HUNTING AND FISHING. 'COMMERCIAL OPERATIONS' ALSO MEAN BROKERING OR SELLING OF ANY OF THE AFORESAID SERVICES BUT DO NOT INCLUDE ANY OPERATIONS 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, reads as follows:

" '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 (1967), reads as follows:

" '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, THE UNIVERSITY OF MINNESOTA, OR ANY INSTITUTION OF HIGHER LEARNING ACCREDITED BY THE UNIVERSITY OF MINNESOTA AND APPROVED BY IT FOR CARRYING ON COLLEGIATE WORK."

(4) AERONAUTICS INSTRUCTOR

Minn. Stat. 360.013, Subd. 19 (1967), reads as follows:

" '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 IN ANY INSTITUTION OF HIGHER LEARNING ACCREDITED BY THE UNIVERSITY OF MINNESOTA AND APPROVED FOR CARRYING ON SUCH COLLEGIATE WORK, WHILE ENGAGED IN HIS DUTIES AS SUCH INSTRUCTOR."

(5) PERSON

Minn. Stat. 360.013, Subd. 8 (1967), reads as follows:

" 'PERSON' MEANS ANY INDIVIDUAL, FIRM, PARTNERSHIP, CORPORATION, COMPANY, ASSOCIATION, JOINT STOCK ASSOCIATION, OR

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.

COMMENT: There may be some unhappiness about the definition of the word "assets" or about the use of the term. It has been argued that a club does not have any "assets" if it leases its aircraft from someone else. I do not know how to improve on this definition, however, and I think it is imporrant that assets be defined. True, some clubs do not have assets but a number of clubs in the late 1960's had a great number of assets which were owned or controlled by one or two people.

(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 are not transferable; however, the transfer of such property interest may be subject to such reasonable conditions as the club deems reasonably necessary to ensoure 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, 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 above).

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

Aero 27A Dealers

(a) Definition. Subdivision 8 of Minn. Stat. 360.511 defines a dealer as follows:

> "Subd. 8. 'Dealer' means any person regularly engaged in the business of manufacturing or selling, purchasing, and generally dealing in new and unused aircraft, having an established place of business for the trade, sale and display thereof and having in its, his, or their possession new and unused aircraft for the purpose of sale or trade."

(b) An applicant for an aircraft dealer's endorsement on his commercial operations license and for dealer's plates must meet all the requirements of Aero 17 as well as all of the statutory requirements set forth in Chapter 360 of the Minnesota Statutes.

(c) Faithful Performance Bond Covering Customers. 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 customers 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, 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 dealer's license shall be revoked. The bond form shall be provided by the Commissioner. A copy of the executed bond certificate will be attached to the application.

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 valie 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 ~~or other evidence~~ 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 ~~91~~ 61 of the Federal Aviation ~~Administration~~ 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 instruction 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.

(NOTE: Aero 29 (f) was formerly Aero 31 (e) (3).

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 demonstract 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 (h) below.

~~(g) Instrument Flight Instruction. Instrument flight instruction may be given only by a flight instructor holding an effective instrument flight instructor's rating.~~

~~(h) Simulated Instrument Flight. Aircraft shall not be flown under simulated instrument flight conditions unless:~~

~~(1) Fully functioning dual controls are installed in the aircraft.~~

~~(2) An appropriately rated pilot occupies the other control seat as safety pilot.~~

~~(3) The safety pilot at all times has adequate vision forward and to either side of the aircraft, or a competent observer occupies a position in the aircraft so that his field of vision adequately supplements that of the safety pilot.~~

~~(i)~~ (h) Recent Flight Experience. ~~This section governs recent flight experience requirements.~~

~~(1) General.~~ 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. ~~shall pilot an aircraft carrying passengers unless within the preceding 90 days he has made at least five takeoffs and landings to a full stop in aircraft of the same category, class and type of aircraft to be flown. No person shall pilot a glider carrying passengers in an aero tow flight unless within the preceding 12 months he has made at least six aero tow flights aggregating one hour during which the foregoing takeoff and landing requirements are met.~~

~~(2) Night flight. No person shall pilot an aircraft during the period of sunset to sunrise when a prominent unlighted object cannot be seen from a distance of three statute miles or the sun is more than six degrees below the horizon unless the aircraft has lighted position lights. No person shall pilot an aircraft carrying passengers during this period unless he has made at least five takeoffs and landings to a full stop during such period within the preceding 90 days.~~

~~(3) Instruction flight. A flight instructor shall not exercise the privilege of the instructor rating unless he is the holder of a valid flight instructor certificate, in accordance with FAR.~~

~~(j) Instrument flight. A pilot shall not pilot an aircraft under instrument flight rules unless he has had at least six hours of instrument flight under actual or simulated flight conditions during the preceding six calendar months or until he has had six hours of such flight time under:~~

~~(1) Actual instrument conditions, accompanied by a pilot of at least private rating holding an appropriate aircraft and instrument rating; or~~

~~(2) Simulated instrument conditions in an aircraft accompanied by a pilot of at least private rating holding an appropriate aircraft rating; or~~

~~(3) Simulated instrument conditions in a link trainer, except that at least three hours must have been had in accordance with (j) 1 or (j) 2 above.~~

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 regulstions.)

(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 of 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 proprty 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 ~~an airspace reservation~~ 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 one committed to a landing in certain aircraft, the pilot has little chance to avoid other aircraft which may interfere with that landing, and 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 reasonable 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 aboe 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 proprty on the surface and in accordance with Aero 33 (a) of this section; 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: The 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 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 radio equipment allows only rectpion 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.

~~(5) Light signals used in the control of aircraft shall be as follows, and have the meaning indicated:~~

~~Steady Green~~	~~--on ground--cleared for takeoff~~ ~~--in flight--cleared to land~~
~~Flashing Green~~	~~--on ground--cleared to taxi~~ ~~--in flight--return for landing~~
~~Steady Red~~	~~--on ground--stop~~ ~~--in flight--give way to other aircraft and continue circling~~
~~Flashing Red~~	~~--on ground--taxi clear of landing area in use~~ ~~--in flight--airport unsafe, do not land~~
~~Flashing White~~	~~--on ground--return to starting point on airport~~
~~Alternating Red and Green~~	~~--general warning signal, exercise extreme caution~~

(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 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 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 underway 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.

~~(a) Ceiling and distance from clouds. Aircraft shall comply with the following requirements as to ceiling and distance from clouds.~~

~~(1) No person may operate an aircraft under VFR in the following situations:~~

~~(aa) Within the continental control area at a distance less than 1,000 feet vertically and one statute mile horizontally from any cloud formation.~~

~~(bb) Within any other controlled airspace at a distance less than 500 feet below or 1,000 feet above and 2,000 feet horizontally from any cloud formation.~~

~~(cc) Within a control zone beneath the ceiling when the ceiling is less than 1,000 feet.~~

~~(dd) Outside controlled airspace at an altitude of more than 1200 feet above the surface at a distance of less than 500 feet below or 1000 feet above and 2000 feet horizontally from any cloud formation.~~

~~(ee) Outside controlled airspace at an altitude of 1200 feet or less above the surface unless the aircraft is clear of clouds.~~

~~(b) Visibility.~~

~~(1) No person may operate an aircraft under VFR in the continental control area unless flight visibility is at least five statute miles.~~

~~(2) No person may operate an aircraft under VFR in any other controlled airspace unless flight visibility is at least three statute miles.~~

~~(3) No person may operate an aircraft under VFR outside controlled airspace unless flight visibility is at least one statute mile. This part does not apply to the operation of a helicopter at or below 1200 feet above the surface at a speed that allows the pilot adequate opportunity to see any air traffic or other obstructions in time to avoid a collision.~~

~~(4) Ground visibility. No person may take off or land an aircraft or enter the traffic pattern of an airport under VFR with a control zone unless ground visibility is at least three statute miles.~~

~~(NOTE: When traffic conditions permit, air traffic control will issue an air traffic clearance for flights within, entering, or departing control zones when ground visibility or flight visibility is less than three miles but is at least one statute mile. Helicopters are permitted to fly when the flight visibility is less than one mile because of their special flight characteristics which allow them to proceed at low speed with safety.)~~

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 ~~P. C. A. (Parachute Club of America)~~ U. S. P. A. (United States Parachute Association) or an F. A. I. (Federation of Aeronautique Internationale) ~~Class B, C, or D~~ License.

(d) Parachutist. A person ~~having a Class B, C, or D License, or equivalent experience,~~ 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, ~~or a C or D license holder~~ instructor, jumpmaster or an authorized employee of the Department.

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

(1) Made at least 25 free-fall jumps including:
~~15~~ 12 stable delays of at least 10 seconds
~~9 stable delays of at least 15 seconds~~
6 stable delays of at least 20 seconds
3 stable delays of at least 30 seconds

(2) Landed within 50 meters ~~yards~~ 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 ~~C~~ B License. A parachutist who has completed all of the following:

(1) Met all requirements for a Class ~~B~~ A License.

(2) Made at least ~~75~~ 50 free-fall jumps, including:
~~65 stable delays of at least 10 seconds~~
~~30 stable delays of at least 20 seconds~~
15 stable delays of at least 30 seconds
~~5~~ 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" ~~in free fall in 7 seconds or less~~ followed by a back loop in free fall in 10 seconds or less.

(4) Landed within ~~30 yards~~ 25 meters of target center on ~~15~~ 10 jumps ~~with delays of 20 seconds or longer~~ during which he selected the exit and opening points.

(5) Demonstrated his ability to ~~correctly and safely jumpmaster students on both static line and free fall jumps~~ keep track of other canopies and remain a safe distance from them.

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

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

~~(1)~~ (2) Made at least ~~200~~ 100 free-fall jumps, including:
~~100 stable delays of at least 20 seconds~~
~~50~~ 30 stable delays of at least 30 seconds
~~20~~ 5 stable delays of at least 45 seconds
~~10 stable delays of at least 60 seconds~~

~~(2)~~ (3) Able to properly complete an International Series (Figure 8 ~~to the right~~, back loop, Figure 8 ~~to the left~~, back loop) in free fall in less than 18 seconds.

~~(3)~~ (4) Demonstrated his ability to control his vertical rate of descent and horizontal movement, coordinating the two.

~~(4)~~ (5) Landed within ~~20 yards~~ 15 meters of target center on ~~40 jumps with delays of at least 30 seconds or longer~~ 25 free-fall jumps during which the parachutist selected the exit point.

~~(5)~~ (6) Made one intentional night jump.

~~(6)~~ (7) Made one intentional water jump.

~~(i) Club safety officer. Must hold at least a Class C License or equivalent.~~

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

(j) Area Safety Officer (A.S.O.) must hold at least a Class C License or equivalent.

(k) Club Safety Officer (C.S.O.) must hold at least a Class B License or equivalent.

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

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

~~(l)~~ (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 on the ground.)

~~(m)~~ (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 club approved by the Commissioner of Aeronautics or must be able to produce evidence that he has received instructions from a ~~Class C or higher parachutist, or from one with equivalent experience,~~ an instructor, and that such instructor authorized this person to engage in parachute jumping.

(b) Persons desiring to form a parachute jumping club must submit training standards of student parachutists to the Commissioner for his approval. (NOTE: The training outline as recommended by the United States Parachute Association is recommended.) The minimum parachutist training program should ~~not be less than 8 hours~~ cover the following: parachutes and associated equipment, exit techniques, stability, canopy manipulation, malfunctions, emergency procedures and landings. The ~~hours of~~ 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 Federal Aviation Administration certificates. ~~registered with the Department of Aeronautic, as required by law.~~

(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 ~~within three miles of any public airport or into controlled airspace or congested area~~ 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 congester area, authorization must also be secured in accordance with ~~FAA~~ FAR Part 105 of their regulations.)

(2) If a new area not previously approved is requested, ~~at least five working days' prior notification is required~~ the request must be in ten working days for inspection of the area for approval or disapproval.

(e) All jumps must be recorded in the parachutist's personal logbook and also in the Club Master Logbook. The personal logbook must be signed after each jump by a witnessing licensed parachutist or witnessing pilot.

~~Only logbooks so signed will be accepted as evidence for issuance of a commercial parachuting license.~~ Club Master Logbooks must show all jumps made by that club, including jumps made by guests and visitors. Personal and club logbooks shall be available for inspection 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 Federal Aviation Administration standards or be on military jump status.

(g) Age. Parachutists and student parachutists must ~~be 21 years of age~~ 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 carrying any jumper between the age of 16 and ~~21~~ legal majority to inspect personally the notarized consent document.

(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 ~~at least a 28 foot~~ a main canopy and a chest pack with at least ~~a 24 foot~~ an approved TSO'd canopy, or tandem assembly. The chest pack (emergency chute) must be repacked ~~every 60 days~~ according to FAA regulations by an FAA licensed parachute rigger. If a pilot chute is used in the chest pack, it ~~must be the vane type~~ shall be the spiral/vane type. ~~There are two exceptions to these requirements.~~

~~a. A person under 35 years of age and weighing over 200 pounds must use a 32 foot diameter, or larger, parachute, or a 28 foot 1.6 Rip Stop Nylon canopy or a 25.9 foot diameter Para Commander, or equivalent. Only persons holding a B License or equivalent are authorized to use a Para Commander or equivalent, and then only after they have received instruction from a club safety officer or C License holder or equivalent. Such instruction must have a minimum of 50 jumps using a para Commander or equivalent, before he is authorized to give this instruction. Such approval must be entered in the parachutist's logbook and signed by the instructor.~~

~~b. A person over 35 years of age and weighing over 180 pounds must use a 32 foot diameter or larger parachute or any mentioned above.~~

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 Federal Aviation Administration.

~~1.~~ (i) Instruments. For delayed falls of ~~15~~ more than 20 seconds ~~or more~~, 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. ~~have made 15 stable delays of at least 10 seconds.~~ (NOTE: Examples of these automatic-release devices are Sentinel, ~~CAP~~ KAP-3, ~~and~~ Military F1-B, and Hi-Tec.)

~~2.~~ (j) Clothing. Boots, helmet, goggles, and adequate protective clothing must be worn ~~for all land jumps~~ by student jumpers. Gloves are mandatory if the temperature is below 40° F. at jump altitude.

~~3.~~ (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 live-saving techniques, including resuscitation, must be in each rescue craft. ~~Each parachutist making water jumps shall be equipped with a harness having ejector-type hardware on at least one leg strap and on at least one side of the reserve tiedown.~~ If such water jump area is approved as a water drop zone and the parachutists are ~~approved by name~~ qualified, no further notification will be required. Any new area will require approval by the Commissioner. All exhibition water jumps will require ~~individual~~ approval by the Commissioner.

~~4.~~ (l) Pilots and all other occupants must wear emergency parachutes while flying and dropping sport parachutists. Approved safety belts must be worn by chute jumpers until aircraft reaches an altitude of at least 1,000 feet above ground.

~~5.~~ (m) No wings, cloth extensions, or other forms of control surfaces may be used in jumping.

~~(i) Student parachutists must initially make at least 5 static line jumps. In addition, they must successfully pull a dummy rip cord within three seconds on three successive static line jumps without loss of stability or control. All static line jumps must be made under the supervision of a Class C, or higher, license holder or equivalent. Dummy rip cord pulls will not be taught on first jump. Static line of student sitting in position next to open door must be hooked up prior to takeoff. Student parachutists must make at least 10 jumps in a four-place, or larger, aircraft with licensed parachutists aboard who hold at least Class C or equivalent licenses.~~

~~(j) After complying with Aero. 36 (i) above, student parachutists may not jump from two-place aircraft until capable of dropping their own wind drift indicator and of judging their exit point accurately. Permission to jump from two-place aircraft will be entered in the student's logbook by the Club Safety officer, a Class C or higher parachutist, or a parachutist with equivalent experience.~~

~~(k) Student rip cord may be mounted on the left side or right side of harness. After 10 free fall jumps, rip cord may be changed to right or left side if instructor so recommends in writing. For these first 10 jumps the rip cord must stay on the side selected.~~

~~(l) - Canopy modifications for students with fewer than 10 free-fall jumps shall not exceed the removal of two gores plus two panels, which shall not exceed 50 square feet of total area, with the high pressure area left intact. Permission to use bigger modifications may be given by the Club Safety Officer so long as Aero. 36 (h) is not violated.~~

~~(m)~~ (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 drop zone area, or other emergency conditions. During actual jumps a ~~large cross or "X"~~ target may be displayed on the field. ~~This marker may be used as the target. Distortion of the "X" to a "T" is a signal to stop jumps but keep aircraft aloft. Distortion of the "X" to an "I" is a signal to exit experienced jumpers only.~~ 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. ~~Any one of these prearranged signals is approved.~~

~~(n)~~ (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.

~~(o)~~ (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.

~~(p)~~ (q) Parachute jumps from within or through clouds are prohibited. ~~Clearance from clouds requirements.~~ No pilot in command of an aircraft may allow any person to make a parachute jump from that aircraft unless clound 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.

~~(q)~~ (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.

~~(r)~~- (s) Minimum opening altiudes (above ground). Student parachutists, 2,500 feet; parachutists, 2,200 feet; ~~expert or~~ Class C licenseee, or equivalent, 2,000 feet. Intentional water jumps: ~~3,000~~ 2,000 feet.

~~1.~~ (t) Maximum ground wind for student parachutist.

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.

~~(s)~~- (u) Before a jump, ~~at least one accurate wind drift indicator must be dropped and timed by each planeload of parachutists~~ wind direction and ground wind speed shall be determined by qualified personnel. ~~The wind drift indicator shall be made of crepe paper 10" wide, 21" long, with a 1 1/2 oz weight on the end. This may be waived by the Club Safety Officer providing wind conditions remain constant after the first indicator has been dropped. Wind drift indicator shall also be dropped when there is an hour or more delay between jumps or when the wind changes significantly. If necessary, a jump may be made with a standard canopy, or a 175 pound dummy with a standard canopy may be dropped over the drop zone.~~

~~(t)~~- (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.

~~(u)~~- (w) Whenever parachute jumps are in progress, the drop area 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 ~~yards~~ meters; ~~PGA~~ U.S.P.A. Class A and B license, or equivalent, 200 ~~yards~~ meters; ~~PGA~~ U.S.P.A. Class C license, or equivalent, ~~150 yards~~ 100 meters; U.S.P.A. ~~PGA~~ Class D license, or equivalent, 75 ~~yards~~ 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 ~~applicant~~ organization must show that ~~he~~ it has the approval of the drop zone.

~~(v)~~- (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 have been by an FAA certificated aircraft mechanic and an appropriate entry must have been made in the aircraft log.

~~(w)~~ (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 ~~14,500~~ 12,000 feet, including the exact time of exit from 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) High 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.

~~(x)~~ (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 club 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 must hold at least a ~~PGA~~ U.S.P.A. Class ~~B~~-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, Subidivision 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 ~~PGA~~ 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 ~~offering instruction~~ engaging in parachuting ~~for which a fee is charged or compensation is received~~ 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 phases of ~~commercial~~ operations that the licensee is authorized to perform.

(1) The ~~operator~~ 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 ~~applicant~~ organization must show to the satisfaction of the Commissioner a curriculum so organized as to insure that the student completing the course will receive a ~~PGA~~ U.S.P.A. Class ~~B~~ A rating, or equivalent. ~~The minimum parachutist training program outline shall not be less than 8 hours.~~ The ~~hours of~~ 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 ~~his~~ its application. (NOTE: The training outline as recommended by the United States Parachute Association is recommended.)

(3) Rules and regulations. The ~~school operator~~ organization shall establish and enforce the rules and regulations which shall govern ~~his~~ its parachuting operation. These rules and regulations shall be prominently posted at its ~~his~~ 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 spcifically approved by the Commissioner. The size must meet the minimum required for student parachutists (Aero 36 ~~(u)~~-(v) of these regulations). The ~~applicant~~ organization shall show by written documentation that ~~he~~ it has a right of access to the land to be used as a drop zone as owner, co-owner, otenant or by any other right of entry.

(5) Instructors. The ~~applicant~~ organization must show ~~he~~ it has instructors who hold ~~PGA Glass C or D licenses or equivalent~~ U.S.P.A. instructor certificates.

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

(7) Insurance. The applicant for a parachuting school 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 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 submit the name of the Club Safety Officer and his qualifications with its application. 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 ot 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 club 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 received, within Subd. 11 of Minn. Stat. 360.013, then, and in such event, such a school or club 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 club, however, must comply with Aero 38 (a) (3) (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, then they will be deemed to be a commercial operation under said Subd. 11 and a commercial operations license will be required.

Aero 39 ~~PARACHUTE JUMPING CLUB~~

COMMENT: The existing Aero 39 sets forth the rules and regulations for a Parachute Jumping Club. Aero 39 has been combined with Aero 38 which is entitled Parachuting Schools and Clubs; therefore, Aero 39 has been deleted in its entirely and is RESERVED FOR FUTURE USE.

Aero 40 Violations

Minnesota Statutes ~~1957~~ 1973, Section 360.022: ~~"Any person violating any of the provisions of Section 360.018, or any of the rules and regulations, or orders issued pursuant to the provisions of Section 360.015, shall be guilty of a misdemeanor, punishable by a fine of not more than $100 or by imprisonment of not more than 90 days, or both, and each such violation, or in the case of continuing offenses each day's violation, shall constitute a separate offense."~~ "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 ~~1957~~ 1973, Section 360.018, Subdivision 1 (6): "The Commissioner is authorized to suspend or revoke any license or certificate of registration of an aircraft, airman, licensee of commercial operations, or aeronautics instructor, 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 airman, licensee of commercial operations, or aeronautics instructor 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 ~~1957~~ 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."

(NOTE: There is presently a bill before the Minnesota Legislature recommending the elimination of state registration for airmen.)

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.

ERRATA SHEET

Page 11, Aero 8, Public Airport (5) Buildings. . . . shall not be closer than 150. . . Should read: . . . . shall not be closer than 250' . . .

Pages 16 and 17 deleted in full. See new pages 16, 17 and 17A attached.

Page 18, Aero 9, (dd). Delete as it now appears on page 17A.

Page 18, Aero 9, (d) . . . from said object with be . . . Should read: from said object will be considered . . .

Page 21, Aero 10, (1) Safety Zone A . . . . equal to two-thirds the length of the primary surface or planned primary surface. Should read: . . . . equal to two-thirds the runway length or planned runway length.

Page 21, Aero 10, (2) Safety Zone B. In the approach of a runway . . . . . Should read: In the approach zones of a runway . . . .

Page 21, Aero 10, (2) Safety Zone B. . . . . a distance equal to one-third the length of the primary surface or planned primary surface. Should read: . . . . a distance equal to one-third the runway length or planned runway length.

Page 21, Aero 10, (3) Safety Zone C. All that land . . . within the perimeter of the norizontal zone . . . Should read: within the perimeter of the horizontal zone . . .

Page 55, Aero 27, (c) . . . set forth his duties in their operating or bylaws. Should read: . . . set forth his duties in their operating rules or bylaws.

Page 55, Aero 27, (d) (3) Should be underlined as it is new material.

Page 58, Aero 27, (h) (3) . . . necessary to ensoure discipline . . . . Should be: . . . necessary to ensure discipline. . . . .

Page 66, Aero 32, (NOTE: . . . interpretations of the regulstions . . . Should be: . . . interpretations of the regulations.)

Page 69, Aero 33, (e) (5) (NOTE: . . . must recognize that one committed to a landing . . Should read: . . . must recognize that once committed to a landing . . .)

Page 71, Aero 33, (i) (2) . . . allows only rectpion . . Should read: . . only reception . . .

Page 78, Aero 36, (Note: . . . congester area . . . Should read: congested area . . .)

Page 81, Aero 36, (q) unless clound conditions meet . . . Should read: unless cloud conditions meet . . .

Page 82, Aero 36, (s) . . . Class C licenseee . . . Should read: . . . Class C licensee . . .

Page 82, Aero 36, (w) The ~~applicant~~ organization must show that ~~he~~ it has the approval of the drop zone . . . Should read: . . . has the approval to use the drop zone.

Page 82, Aero 36, (w) . . . power lines, Poles, towers . . . Should be: . . poles, . . .

Page 85, Aero 38, (4) Drop Zone . . . right of access to the land to be used as owner, co-owner, otenant . . . Should be: . . co-owner, tenant . . . .

Page 86, Aero 38, (10) . . . names and addresses ot its members . . . Should read: names and addresses of its members . . .

(b) Definitions

(1) Airport Elevation. The established elevation of the highest point on the usable 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 a 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 the landing, taking off or taxiing of aircraft.

(7) Runway. Any paved surface or any grass or turf covered area of 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 system 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 longitudinally 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 non-precision 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 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) 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 a specially-prepared hard surface or planned hard surface; or

(ff) 2,250 feet for other visual runways

at a horizontal distance of 10,000 feet, then continues at the same rate of devergence to the periphery of the conical surface.

(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, 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.

ORIGINAL COPY

STATE OF MINNESOTA

DEPARTMENT OF AERONAUTICS

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In the matter of:

PROPOSED AMENDMENTS TO THE RULES AND REGULATIONS OF THE DEPARTMENT OF AERONAUTICS OF THE STATE OF MINNESOTA, DATED NOVEMBER 13, 1973.

- - - - - - - - - - - - - - - - - -

Transcript of proceedings had in the above captioned matter, before The Honorable Lawrence E. McCabe, Commissioner of Aeronautics, on Tuesday, the 18th day of December, 1973, commencing at approximately 9:00 o'clock in the morning, in Room 224 of the National Guard Armory, located at 600 Cedar Street, in the City of St. Paul, Minnesota.

APPEARANCES:

Lawrence E. McCabe, Esquire, Commissioner of Aeronautics.

George Holey, Esquire, Deputy Commissioner of Aeronautics.

Kenneth Patz, Esquire, Department of Aeronautics.

C. Blaine Harstad, Esquire, Special Assistant Attorney General for the Department of Aeronautics.

* * *

WHEREUPON, the following proceedings were duly had: --

* * *

Mr. Harstad: This hearing is being held in Room 224 of the St. Paul National Guard Armory, St. Paul, near the downtown St.

Paul Capitol. All of the statements and testimony are being taken by the court reporter on my left, and the transcript, that is a typed up copy of the testimony and statements, will be prepared by the court reporter. That is a part of the rules of the Attorney General's office and of the Aeronautics Department concerning procedures with which these hearings are conducted. The court reporter is from the office of Christopher Columbus & Associates in case any of you are interested in obtaining a copy of the transcript. Christopher Columbus & Associates are located at 720 Commerce Building, St. Paul, Minnesota. And if you wanted to purchase a copy of the testimony or statements made at the hearing today, you could contact their office and acquire a copy of the testimony. The hearing is held pursuant to Chapter 15, of the Minnesota Statutes, and certain other rules and regulations of the Attorney General's Department. A number of documents will be made a part of the record, and I should identify those now. The basic document, of course, and the first one which becomes a part of the record are the rules and regulations that were proposed by the Department of Aeronautics, dated November 13, 1973. You should have received a copy of those proposed rules at the door. Attached to those rules was an errata sheet, listing certain typographical and other types of errors, to which was attached copies of Pages 16, 17, and 17A. Those three pages have been redrafted subsequent to November 13th, 1973. So those are the proposed rules that are being discussed. The basic rules of the Aeronautics

Department, of course, were passed a number of years ago, and the hearing today is on the changes in those rules, as you look at the sheet in front of you, the underlined material, the new material, that is representing a change, and the crossed over material, the deleted material, is a deletion, and also representing a change. Subject matter of the hearing is on the changes to be made. In other words, not on the entire regulations, although I am sure the Commissioner would be interested in hearing any comments you may have on the entire regulations, and the comments you make are not limited to just the underscored or the deleted material. Now, the Aeronautics Department mailed a copy of these proposed regulations to all of the persons who registered their names with the Secretary of State's Office, pursuant to Minnesota Statutory Rules. I would also, now, like to make a part of the record, a list of the names and addresses of the persons who received copies of these rules. I think approximately 500 to 700 copies were sent out to various senators, representatives, and persons who listed their names with the Aeronautics Department, and various other individuals who asked for copies of the regulations. So this document, the list of names of persons who received copies, is also made a part of the record, as well as the affidavit, a sworn statement that copies of these regulations were mailed to the names of these persons attached to the affidavit. That is the second document, that we should make a part of the record. The third document, is an Order of Lawrence McCabe,

Commissioner of Aeronautics, dated November 14th, 1973, requesting this hearing be held today, Tuesday, December 18th, at 9:00 A.M. The fourth document is a Notice of Hearing, signed by Commissioner Lawrence McCabe, on November 15th, 1973, and it was this Notice of Hearing that was mailed to the 500 to 700 people. It wasn't the actual regulations. The one-page Notice was mailed to those persons stating that a hearing would be held today, and it is this Notice now, that I would also like to make a part of the record. Subsequent to the time that we mailed the Notice of Hearing, we received some written communication, which are also made a part of the record, and which therefore, you can examine if you would like. We received three written communications, which we will make a part of the record. The first which has been marked by the court reporter, Exhibit 1, is a letter from Frank Mixa, M-i-x-a, Executive Director of the Lake Minnetonka Conservation District, in which he expresses an interest on seaplane operations in the Lake Minnetonka area. The second communication which we received in response to the Notice was a letter from the Anoka Electrical Cooperative Company, Anoka, Minnesota, dated December 6th, 1973. Whereupon, comment is made about parachute jumpers affecting the power lines near Leaders Airport near Clear Lake, Minnesota. Attached to that letter is a letter from Mr. and Mrs. Kenneth Fiereck, Rural Route 2, Clear Lake, Minnesota, in which they also comment on operations and the parachute jumping situation near Leaders Airport, at Clear Lake. I make that as Exhibit No. 2.

Exhibit No. 3 is a letter from H. R. Stuhr. He's President of the Maple Lakers Association at Maple Lake, Minnesota. His letter is dated December 10th, 1973, addressed to the Commissioner of Aeronautics. In his letter is concerning seaplane operations in the area of Clear Lake, or rather Maple Lake, at Maple Lake, Minnesota. Now those three communication exhibits, 1, 2, 3, are made a part of the record, and I leave them on the table here, because they should be reviewed by you if you are interested.

Mr. Harry Clement: May I get one now?

Mr. Harstad: Yes.

Mr. Clement: The one on parachuting.

Mr. Harstad: The Commissioner of Aeronautics has the power and authority to issue these rules and regulations pursuant to Chapter 360, of the Minnesota Statutes. One of the purposes of this hearing is to give all individual parties an opportunity to be heard on questions concerning the wisdom of these proposed rules, and concerning the reasonableness of these proposed rules. After listening to the reasons given for objections to certain rules and after the Commissioner has considered objections, or the comments, which you might wish to make, the Commissioner then after deliberations, will prepare an Order setting forth the final rules in full form. Keep in mind that these are not final rules that you have before you here, they are the proposed rules. The Commissioner wants to hear your comments on those rules. After the Commissioner has finally determined what the final rules shall

be, then they are filed with the Attorney General's Office, with the Office of the Secretary of State and with the Office of the Commissioner of Administration. Now it's possible that some of you may wish after the close of today's hearing, to send certain written comments to the Commissioner of the types that I just described. You may want to make a specific proposal that a certain chapter or section should be changed to read as follows, and then set forth the language which you prefer. You may wish to submit to him arguments or a brief as to why the regulations which he is proposing are wise or why they are not wise, why they are fair or why they are not fair, and you have a period of time which we will tell you how long at the end of this hearing, to submit those oral arguments, those briefs, those statements and those letters. Those can be very informal documents. You should try to be helpful in your communication. That is stating facts and stating proposals so that you can assist him in determining what fair rules and regulations will be. Now, I just might say a word or two about the procedures to be used after the Commissioner finally determines what the rules and regulations will be. He then mails them to the Office of the Attorney General, the Attorney General then reviews them to determine whether or not in the opinion of the Attorney General's Office they are reasonable or whether they exceed the Commissioner's statutory authority. Now, that review is not made by me, that is made by the Attorney General's Office, and the Assistant Attorney General. If you feel

at any time that these rules are illegal, that is above and beyond the authority of the Commissioners, then you should write to Warren Spannaus, the Attorney General, at the State Capitol, and send a copy to the Commissioner, Lawrence McCabe. Set forth the reason which you have why you think they are illegal or beyond the Commissioner's power. The Commissioner here decides aeronautical matters. He is the expert in aeronautical matters. The Attorney General is the person you should contact if you think legal authority is exceeded, and you must do that within ten days after the Attorney General receives these rules. So if you have an interest in making that contact with the Attorney General's Office you should contact me or Mr. McCabe so that we can notify you when we mail it to the Attorney General's Office. We don't know when that will be yet. But we have to know the identity of the individual party, so that we can advise you when that takes place. Now, when each of you entered the room, you were asked to sign a sheet of paper setting forth your name and address and particular rules that you may be interested in. I think at the present time it would be helpful to the Commissioner if we would try to find out what rules the persons here are interested in. Let me just ask you a few questions, if you can respond by raising your hand. How many persons here are interested in the part of the regulations dealing with seaplanes? Ten. How many of those here are interested in those parts of the regulations dealing with skydiving? Four. How many of those here are interested in the

parts of the rules dealing with the regulation of flying clubs? Three. Now, I think those are the main categories that may be discussed or may turn out to be the most controversial, so as we get into the actual hearing on the regulations it may be the Commissioner's desire, but it's however he wishes to hear it. Seaplane regulation matter first and skydiving matter second and the flying clubs regulations third. But keep in mind that it is our intention today to go through all the regulations. That you should comment on any regulation you desire and I just want to have some indication here in the order of which we should hear these regulations.

Donald Huseth: Could I examine the seaplane item? The one from Minnetonka?

Mr. Harstad: Yes, and your name?

Mr. Huseth: Don Huseth, H-u-s-e-t-h.

Mr. Harstad: Okay, that's Exhibit No. 1. Now, I would like to say a word about the procedures that the Aeronautics Department will use. The Aeronautics Department has prepared the document called a Statement of Need, as to the various changes which are being proposed. Mr. Patz will read the Statement of Need in regard to that particular regulation, when we come to the regulation. In other words, it's a statement by the Department as to why we think the change should be made. Mr. Patz will read that Statement as each rule is called, the Statement of Need. As far as the other procedures are concerned, all of you interested in

commenting on these rules will have an opportunity to do so. The Commissioner, Lawrence McCabe, at the far right of the table, is the presiding officer at the hearing. He will determine the order in which the testimony is given or the statements received. Now, it's possible that some of you may desire to submit today written statements to the Commissioner of Aeronautics, and you may do so if you desire. In other words, you do not have to read your statements. You may if you wish, but if you have it written out and merely want to make it a part of the record, then I will put it in this pile of documents here and make it part of the record, and it may be examined by the other persons here. If you want to read it at the microphone on my right so that everyone can listen and comment upon it, you are welcome to do so. Written statements may be sworn statements. In other words, if the witness does not care to be sworn he does not have to be sworn. He can merely state his name and address, and say that he would like to make a statement. He can make it orally over the microphone or he can submit it in writing or he can do both, if he so desires. Now, the fact that the statements are not sworn, may be considered by the Commissioner in considering what weight to be given to those statements. When you request to be heard, you should give your name and your address, and identify the group that you are representing, if you are representing a group. You may be just speaking for yourself individually, and that's fine. Or you may be representing the flying club or seaplane club or skydiving club,

and you should indicate the group that you are speaking for. As I have indicated, if you want to be sworn you may be sworn by the court reporter, and then you can testify pursuant to the oath that you have taken. I should say a word about the procedure to be used regarding cross-examination. If a witness is not sworn and prefers not to be sworn, then he cannot be examined or cross-examined. I can ask him questions and he can answer if he desires, but he doesn't have to answer if he doesn't desire to, and the same is true even if he is sworn. So if you desire to make a statement and then someone asks you some questions, you can answer him if you choose to, or you can refuse to answer him if you choose to. You are under oath, so more weight may be given to your testimony and the statements which you make, but you are not required to answer any questions if you do not desire to answer any questions. Any other preliminaries?

Commissioner Lawrence McCabe: I don't believe so. I think that in essense of the participant's time we'll take the chapters which seem to interest the majority of the people present, and being that we have more people interested in the seaplane regulations, maybe we'll take Chapter 2 first. Go through that which will include seaplanes, then we'll take Chapter 7, which concerns itself with parachuting, skydiving and so on. Then Chapter 3 deals with among other things, flying clubs. Then we will pick up and start with Chapter 1 on through with those we have not yet

covered. Do you want to start with Chapter 2, to begin with, and that will include public seaplane bases, public seaplanes on public waters.

Mr. Harstad: Mr. Patz, if you could read the Statement of Need as to Aero 6 through 16, taking them one at a time, and seeing if there are any comments on them as you go along.

Mr. Kenneth Patz: Okay. The first change on the Statement of Need is Aero 8, Public Airport, Item 1. The titles are underlined in the proposed changes in the Statement of Need and Item 1 states that the date changed to give additional time to comply with minimal requirements. Item 3 under Aero 8.

Mr. Harstad: You might tell them what page you are on, it might help them find out where you are.

Mr. Patz: We are on Page 11 of the proposed changes, under Aero 8. And Item 3 was changed for clarification. Item 5 on Page 11, also changed -- was stated changed 250 feet in center line of the runway to be consistent with the F.A.A. Item 9 on Page 12, was changed to let the Commissioner make safety regulations on obstructional marking and lighting. Aero 9, revisions to Aero 9, entitled Criteria For Determining Obstructions To Air Navigation, Minimum Zoning Standards, and Marking and Lighting of Structures, were made for the following reasons; Item 1 to define the terms used on Aero 9 and 10. Item 2 to outline the air space criteria in a more orderly and understandable fashion that parallels the outlined format used by the F.A.A. In F.A.R., Part 77

Objections Affecting Navigable Air Space and also the technical portions of those airport zoning ordinances, which have been adopted thus far by nine counties.

Mr. Harstad: This is Aero 9 and 10?

Mr. Patz: Yes.

Mr. Harstad: Are any persons here interested in Aeros 9 and 10 concerning zoning in areas surrounding airports? The Statement of Need is somewhat lengthy, and if anyone is here that is interested, we will read it. If you are not interested, we will just make it a part of the record.

Commissioner Lawrence McCabe: No, there's nobody interested.

Mr. Harstad: So we will insert this Statement of Need prepared by the Department regarding Aeros 9 and 10, zoning in the areas surrounding airports, as part of the record. Maybe then Mr. Patz, you can proceed to Aero 11.

Mr. Patz: Aero 11 is found on Page 23, and the rules and regulations of Aero 11 Statement of Need. The rules and regulations presently in use contain Aero 11, Airport Reference Points, Airport Classifications and Elevation, that is above sea level. Aero 11 accomplishes four objectives as follows: One gives the name of each airport. Two; states whether it is a key secondary landing strip airport. Three; states the elevation of the airport. Four; states the airport reference point.

Mr. Harstad: Maybe I can interrupt, Mr. Patz,there as well. Aero 11, as you will note, completely deletes reference to airport

reference point and we have prepared a Statement of Need setting forth the reason for that deletion. Are any of you that are here interested in commenting on Aero 11? If you are, we can proceed to read the Statement of Need. If you are not, we will make it a part of the record. Okay, since no one is interested, we will make the Statement of Need as to Aero 11 a part of the record. Mr. Patz can proceed to Aero 12.

Mr. Patz: Aero 12, Public Seaplane Base, Page 24 for these regulations. Aero 12, Seaplane Operations on Public Waters. The change in Item B of Aero 12, Page 24, states this is self-explanatory. Part E under Aero 12, Statement of Need, the name, Minnesota Department of Conservation, has been changed to Department of Natural Resources. K under Aero 12 (2) we have added the term operable motors because the boat wouldn't be very valuable for rescue purposes without an operable motor. K (5) Aero 12, Page 25, in consulting with a major fuel company and filter manufacturer, they have advised me that it is as important to have the water filtered from the fuel as it is to have solid matter filtered from the fuel, and in the case of jet fuel, it is even more important.

Commissioner Lawrence McCabe: Any comments on Aero 12? Move to 12A.

Mr. Patz: Okay. 12A on Page 27, a tragic accident involving a seaplane and a swimmer has prompted several municipalities to enact ordinances banning the landing of seaplanes on public waters within their jurisdiction. This unfortunate accident has high-

lighted the need for some planning for the compatible use of seaplanes with other uses of public waters in the state. We feel that the greatest conflict between seaplanes and other uses of the lakes occurs in the highest populated seven county area, surrounding the Twin Cities. We presently have regulations governing the licensing of seaplanes bases where seaplanes are stored or regularly based. However, we have not previously attempted to prohibit the occasional landing of seaplanes within the state. On May 11, 1972, the Attorney General issued a detailed opinion, stating that the Commissioner of Aeronautics, has the authority to adopt regulations prohibiting or regulating the occasional landing of seaplanes upon waters of the state. Based on this authority and on our opinion that the greatest problems exist in the seven county Twin City area. We have surveyed the seven county area for the purpose of determining which lakes should be restricted and in what manner. We have been in contact with the White Bear Lake Conservation District, the Lake Minnetonka Conservation District, the Department of Natural Resources, and government subdivisions concerning the control of seaplanes. Based on our survey of the lakes and discussions with interested groups, we have developed these regulations for the operation of seaplanes on public waters within the seven county area. In surveying the lakes we first went to the restrictive quadrangle map for each county. We ruled out lakes which were within the city limits of Minneapolis and St. Paul, for the obvious reasons that those lakes

have the highest concentration of other recreational uses that are not compatible with the operation of seaplanes. These lakes are frequently too small and are situated in the most densely populated areas. We also ruled out lakes that were less than approximately one mile in length. We then made a list of the remaining lakes of approximately one mile in length and larger and overflew the location to evaluate them. We did this on weekends during mid-afternoon, so that we could also evaluate the amount of other traffic on the lakes. In considering the size of the lake we took into consideration the terrain surrounding the lake, such as trees, banks, power lines, houses, tall buildings, towers, or any other item that might reduce the effective size of the lake.

Mr. Harstad: Any comments on Aero 12A? Will you take the podium?

Mr. Deane Anklan: I am Deane Anklan, Ramsey County Engineer, representing the County Board of Commissioners, Ramsey County Board of Commissioners.

Mr. Harstad: Will you spell that last name again?

Mr. Anklan: A-n-k-l-a-n. The Ramsey County Board did not have time following its meeting late yesterday afternoon to prepare a statement for the Commissioner. Therefore, they asked that Mr. Bernard Edmund and myself --

Mr. Harstad: Mr. who?

Mr. Anklan: Bernard Edmund, the Director of Parks and Recreation, and myself, put their thinking into letter form and sub-

mit it at this time for your consideration. Basically that letter states that the County Board is in agreement with the restrictions placed on all of the lakes in Ramsey County, except for Bald Eagle, Turtle Lake, Lake Owasso and the Mississippi River.

Mr. Harstad: Wait a minute now, could you go a little slower there. Except for what?

Mr. Anklan: Except for the lakes as stated in the amended rules and the Mississippi River. That is, Bald Eagle, White Bear Lake, Turtle Lake, Lake Owasso and the Mississippi River. The County Board also suggests that the prohibition of all seaplane operations from 9:30 a.m. to 5 p.m. on the weekends and legal holidays between May 15th and October 1st be extended to those lakes also.

Mr. Harstad: Let's see if I understand your statement there. Do you agree with the proposed rules?

Mr. Anklan: Yes, the County Board of Commissioners has stated that they agree with the rules as proposed, with the one suggestion that the prohibition of seaplane operations be extended to the lakes that are excepted from the prohibition. That is; Bald Eagle, White Bear Lake, Turtle Lake, Lake Owasso and the Mississippi River. That that time period also be extended to those lakes for the limitation.

Mr. Harstad: So you would suggest that the Saturday, Sunday and holiday restrictions between May 15th, and October 1st, between the hours of 9:30 a.m. and 5 p.m. be extended to cover all

the lakes listed in Ramsey County; Bald Eagle, etc.

Mr. Anklan: That is correct. That is the action of the County Board.

Mr. Harstad: Anyone have any questions to ask of this gentleman?

Mr. Donald Huseth: I'm Don Huseth from Thunderbird Aviation, Flying Cloud. I'm just wondering, by extending this wouldn't you, to all these lakes and rivers --

Mr. Harstad: Maybe you could stand up so we could all hear.

Mr. Huseth: How about the seaplane owners. We went through this last year with seaplane training and we decided we would have no training on holidays and weekends on these lakes. But I'm thinking of the guy who lives on the lake and has his plane. How is he going to get out when he wants to go fishing? How is he going to get back in when you restrict everyone?

Mr. Anklan: I can only respond for myself in this particular case and state that I feel that the County Board is looking at the heavy use periods on the lake and considering that as the primary use rather than the aviation use. I believe it's their feeling that they're not undly restricting the seaplane operator if this time is known to him, and he can work around it.

Mr. Huseth: Well, I guess we could, except of course we do have weather.

Mr. Harstad: You may ask the witness questions but if you want to make a statement, I'm sorry then. You should take the

stand later on and make a statement. I'm sure he's willing to answer questions, but you can probably make your statement later.

Commissioner Lawrence McCabe: Any other questions of the witness?

Mr. Harry Clement: I was wondering --

Mr. Harstad: Would you identify yourself?

Mr. Clement: Harry Clement, I'm with the Minnesota Skydiving Club and the United States Parachute Association. But, I was wondering what criteria they are using or you are using, for determining this when the Department went through their investigation as they so stated. What is the criteria that you have come up with to off-balance this?

Mr. Anklan: I'll have to speak again second hand for the County Board of Commissioners. I believe, as I stated earlier, they see the heavy use periods as primarily water based recreation rather than aviation based recreation. They are making that determination on the volume of parties using the lake at that particular time.

Mr. Clement: Was this not part of the Commissioner's study also?

Mr. Anklan: I can't respond to that, sir.

Mr. Clement: Was that not so stated?

Mr. Harstad: Your question is argumentative. Do you want to ask him a question that brings a fact answer? I don't think you are listing any information.

Mr. Clement: It was stated by the Board that one of the things that was considered was the amount of traffic on the lake.

Mr. Harstad: But you're making that a statement. What facts do you want to elicit from this fellow? What do you want to ask him?

Mr. Clement: I don't know what facts he is using. That's what I want to know.

Mr. Harstad: Well, go ahead then. Ask again.

Mr. Anklan: Well, Commissioner, I can only respond to the gentleman's question in stating that the County Board of Commissioners of course is concerned with those recreational areas and all people that they see entering through those recreational areas to the lake. While I myself may see it differently, this is their response to it, not necessarily my own.

Mr. Jarle Leirfallom: My name is Jarle Leirfallom, J-a-r-l-e L-e-i-r-f-a-l-l-o-m. I live at Lake Owasso. And I don't want to embarrass the gentleman, but I would like to ask him if he would be willing to state that his opinion as a pilot and lake owner may be different from that of the Board?

Mr. Harstad: Oh, I think that's unfair.

Mr. Leirfallom: Well, he had made testimony.

Mr. Harstad: I think that's unfair. He comes here as a representative of the County Board and he did not come here as an individual.

Mr. Leirfallom: I see.

Mr. John Lindberg: John Lindberg, from Wings, Inc. I was wondering if you were intentionally putting in the Mississippi River along with the lakes as far as restricting seaplane operations?

Mr. Anklan: Commissioner and Mr. Lindberg I --

Mr. Harstad: What was your name, sir?

Mr. Lindberg: Lindberg. L-i-n-d-b-e-r-g.

Mr. Anklan: Again, I think the County Board of Commissioners, and I am speaking again as my viewing them in their position, feel that the water use, the adult recreation use of the Mississippi River during this period of time would be in conflict with the general aviation use of the river at the same time. I'm not sure they have made any kind of study on it at all, as a matter of their decision. I believe it was just one of the things that they came up with, along with the other lakes.

Mr. Dick Johnson: Dick Johnson, with Northern Airmotive, St. Paul. Do you know, did they consider that we have a public use seaplane base on the Mississippi River adjacent from the airport, when they made that? That would mean closing that seaplane base on those weekends and holidays.

Mr. Anklan: Commissioner and Mr. Johnson, yes, it was brought to their attention that both the St. Paul area and Bald Eagle Lake both had commercial seaplane operations going on then.

Commissioner Lawrence McCabe: Any other questions?

Mr. Al Schauss: I'm Al Schauss, from Lake Minnetonka, and

I've been operating a seaplane from my base there on St. Alban's Bay --

Commissioner Lawrence McCabe: We are talking about Ramsey County, now.

Mr. Schauss: Oh, I'm sorry.

Commissioner Lawrence McCabe: This gentleman is a Ramsey County Engineer. He's answering questions concerning this particular policy that the Ramsey County Board has taken. Anybody have any questions? Thank you Mr. Anklan.

Mr. Anklan: Thank you.

Commissioner Lawrence McCabe: Anybody else who would like -- Mr. Leirfallom,

Mr. Harstad: Excuse me, Commissioner, a letter has been submitted by Mr. Anklan of the Ramsey County Engineer's Office. Would you like me to read it?

Commissioner Lawrence McCabe: I think he did in essence read it.

Mr. Harstad: Oh, did you in essence read it?

Mr. Anklan: If you care to read it, I didn't read it verbatim, sir.

Mr. Harstad: Do you want me to read it, Commissioner?

Commissioner Lawrence McCabe: I think it's kind of repetitious, if you want to read it again, fine.

Mr. Harstad: I'll make the letter a part of the record.

Commissioner Lawrence McCabe: Anybody can come up and take

a look at the letter if they would like to. I'll make it Exhibit No. 4. This is a letter from the Ramsey County Engineer's Office and the Director of Parks and Recreation, Ramsey County, dated December 17, 1973.

Commissioner Lawrence McCabe: Mr. Leirfallom, did you have a question? State your name and address.

Mr. Leirfallom: My first name is Jarle, J-a-r-l-e, Leirfallom, L-e-i-r-f-a-l-l-o-m. I've been a sea pilot based, as a personal seaplane based, on Lake Owasso for approximately ten years. I have observed the operation of seaplanes during those ten years and I would like to take the opportunity to commend the Commissioner of Aeronautics and his staff and other people for moving into this area of protective concern. Because only if we have proper protection and scheduling and programing can we continue to, can we expect to continue seaplane operations. So I would commend you very highly for what you have done here. I think generally the 12A Seaplane Operation Rules and Regulations are very good. They seem to discriminate, I believe, quite -- as outlined in your Statement of Need I heartily subscribe to that Statement of Need because it isn't apparent that this type of action is needed. I believe the rules and regulations carry this out very well and in my opinion could be adopted almost as written. I say almost, only because I don't want to comment on Lake Minnetonka and White Bear Lake problems, not being affected by them at Lake Owasso and any other lake. Now, however, if the Ramsey County resolution were

to be adopted then this would be applied to other lakes then, I would comment that I think this is not needed at this stage of the game. Some of these other lakes, such as Lake Owasso, I know intimately. When these matters were up before the local jurisdiction, the City of Roseville, and I attended a meeting at Minnetonka and other meetings, local meetings, it was very clear to me that the public believed that these lakes were congested with recreational traffic during all of the summer season, and that they begin about the first or middle of March or thereabouts with the opening of fishing and well into the fall. It was their opinion apparently, that the lake was constantly congested. This was not the case and at these hearings I pointed that out and put into print before the Ramsey County Board and it was never disputed to my knowledge and never contradicted to my knowledge. If you took all of the daylight time during which the lake was open, that is no ice on the lake, and figured out how much of the time these lakes were congested from the opening in the spring to the freezing in the fall, my arithmetic came out consistently with the lake water not congested 95% of the time. Therefore, even with respect to Minnetonka and White Bear Lake and certainly now, if it's to be exported to the other lakes excluded, I would say that this requirement is unnecessarily restrictive. I imagine when you get to the Minnetonka and White Bear Lake situation that will have a separate discussion. So if I may exclude that portion of it from any further comment and confine myself to the four other

lakes. I would like to say that on May 15th, with the opening season of flurry of activity during the month of May, you could have some heavy traffic on those days if it happens to be particularly warm, but swimming doesn't start until later in the year. The real boating and sailing traffic does not start until later in the year and any exclusion of this type should certainly not start before June 1st. It should not continue to September because usually in September the lakes are unoccupied so that exclusion of this type, if they are to be expelled, should at the very most be June, July and August with respect to the 9:30 A.M. exclusion. This is a little bit too early for practical reasons. First of all in the surveys that I did at Lake Owasso the traffic never begins to appear in significance until 11:00 o'clock in the morning, and most of it starts right after noon. From the seaplane operator's point of view, in the summer months, the thing that determines whether or not the seaplane is cranked up and taken off from the lake, that's on cross-country trips, is the weather that's coming in from the southwesterly direction usually. Personally I use the flight service station to find out what the weather is going to be, and I start calling them if I anticipate flight. It takes until the 10:00 o'clock report, which is available in whole by telephone or by shortwave radio. It takes until 10:15 or thereabouts to get a real good fix on the weather. The 9:30 or the 9:00 weather, got around 9:15 or thereabouts, is not conclusive, because weather comes generally from an easterly

direction. Therefore, your having a later time, later development if there are to be thunderstorms that may turn out to be dangerous and significant, you don't get a fix on these until you start monitoring that later weather in the morning. Therefore, I would say that any exclusion or any restriction of this type should be at 10:30 rather than 9:30. On the other side, on the warm days where there is heavy traffic, 5 o'clock is a little bit early for assuming that traffic has subsided. The heaviest traffic on Lake Owasso, which I know very well, starts around 1:30 on the warm days or 2:00 and runs through until 6:00 or 7:00. So the hours here I don't believe are accurate enough to be applicable. However, as one gentleman implied in the questioning here previously, I think it would be a good idea to keep as many lakes open on this score as can be kept open if there are distances between the lakes. In other words, if some lakes are more dangerous or more congested than others, then I would think that you would want to keep as many lakes open as possible so that the people that do need to come and go can come and go someplace without aborting or without trying to stretch things, weatherwise, taking chances, etc. So I would urge you to consider the rules as you have it. Leave the four, leave the five Ramsey County lakes without additional restrictions. Consider, of course, as your commentators will no doubt, any changes, the changes in the Minnetonka area and White Bear restrictions, and I wouldn't comment any further on that, other than I believe these are excellent rules and regulations in

12A.

Commissioner Lawrence McCabe: Mr. Leirfallom, do you care to submit to any questions here?

Mr. Leirfallom: I would be gald to.

Commissioner Lawrence McCabe: Anybody have any questions? Mr. Harstad, do you have any questions?

Mr. Harstad: No I don't, thank you.

Commissioner Lawrence McCabe: Thank you, Mr. Leirfallom.

Mr. Art Noteboom: Art Noteboom, I'm representing Flight Training Center. Is not Rice Lake and Bald Eagle --

Commissioner Lawrence McCabe: Is that a question of Mr. Leirfallom?

Mr. Noteboom: This is a question, yes. Is Rice Lake, Bald Eagle and Mississippi River [illegible], is that not the only three lakes we have for seaplane operation?

Mr. Leirfallom: In Ramsey County?

Mr. Noteboom: I am speaking of all the lakes, seven county area here.

Mr. Leirfallom: Bald Eagle, White Bear Lake, Turtle Lake, Lake Owasso and the Mississippi River have all been used and my impression is that Turtle Lake has not been used to the extent that the others have. There are some other lakes that have been used. Snail Lake and Long Lake and others that are excluded from this.

Mr. Noteboom: As a seaplane operation?

Mr. Leirfallom: Right.

Mr. Noteboom: Rice Lake is a little used?

Mr. Leirfallom: Rice Lake is in Anoka County, I believe.

Mr. Noteboom: So in other words, all of your seaplane bases are closed at that time too? Which would cover sixty miles across Minneapolis.

Mr. Leirfallom: Well, perhaps I'm not clear on what the question is.

Mr. Noteboom: I'm asking that Rice Lake and Bald Eagle and the Mississippi River are the only three seaplane operations which we have in the Twin Cities area, is that correct?

Mr. Leirfallom: I don't believe so. I think in Ramsey County, I think Rice Lake is in Anoka County. Bald Eagle Lake is operative and has had seaplane operations. White Bear Lake and Turtle Lake have had some of it. Lake Owasso has had seaplanes there for many years. Long Lake near New Brighton and there is some small lakes that have been landed in, and Snail Lake has had seaplane operations in it.

Mr. Noteboom: In other words, all of the commercial operations will be closed down during those hours. Is that right?

Mr. Leirfallom: These are not commercial operations, I understand, there. None of these are commercial. Rice Lake is a commercial operation.

Mr. Noteboom: Rice Lake is a commercial operation?

Mr. Leirfallom: Yes, and that's in another county.

Mr. Harstad: I think you misunderstood, you are asking what

lakes now have commercial seaplane operations. You want to know what lakes now have commercial seaplane bases.

Mr. Leirfallom: None in Ramsey County, except there is a semi-operation at Bald Eagle Lake attached to Benson's Airport, as I understand it. Gassing up is it and dry-docking.

Unidentified Voice: What about on the Mississippi?

Mr. Harstad: Wait a minute now, you have got to do this in order. The court reporter is taking down the questions and answers so you have to ask the Commissioner to recognize you and identify yourself.

Mr. Noteboom: Well, perhaps the Commissioner can tell me what we have on these lakes and these areas.

Mr. Harstad: Well, perhaps he could, if we had the records somewhere. But the purpose of this hearing is not for us to answer your questions. The purpose of this hearing is for us to listen to your comments so --

Mr. Noteboom: My comment is that, in the commercial operation in the seven county area will be closed down during those hours, is that right?

Commissioner Lawrence McCabe: Do you wish to make a comment? Are you asking a question of Mr. Leirfallom? Mr. Leirfallom does not work for the State of Minnesota. He's just a witness here that's making a statement.

Mr. Noteboom: Yes, I understand.

Commissioner Lawrence McCabe: So to the best of his knowledge

he has just said that the only one he knows of is at Rice Lake, with a semi one at Bald Eagle, and the one in the Mississippi, and that is his answer I believe. Anybody have any other questions of Mr. Leirfallom? Thank you, Mr. Leirfallom.

Mr. Leirfallom: Thank you very much. And my apologies to my friend Deane Anklan for putting him on the spot.

Commissioner Lawrence McCabe: The gentleman in the green sweater, you wanted to make a statement?

Mr. Schauss: Yes.

Commissioner Lawrence McCabe: Do you want to come up here, it's a little easier for the court reporter.

Mr. Schauss: I'm Al Schauss from Lake Minnetonka and I have a seaplane there. I have been operating out of Minnetonka for seven years now. I would think they wouldn't have a complaint on my operation there. Now there are, I think, eight or nine seaplane operators on Minnetonka and I don't think that any of the operators have been obnoxious to the people around there. I heard no complaints about those that are based on the lake. Now, I agree pretty well with Mr. Leirfallom and his suggestions. One thing that occurred to me is that I go out in the morning and clement weather comes in and I have had to get back. Now what can be done in a case like that if it happens to fall within the hours of the restrictions. I mean can there be some provisions in that you would be allowed to go out, well you could go out without restrictions but in getting back in. It's pretty important to come in

and have a place to tie down when a storm is brewing. I would like to see some provisions that you could go out and come back in once during the day. It's necessary in the my bay --

Mr. Harstad: What bay are you one?

Mr. Schauss: I'm on St. Alban's Bay. Now, on Saturdays there's nothing, well, as any day, there is nothing up until noon and also after Labor Day in the fall there's hardly any boats on that bay, and very few before June 1st. There would be weekend after weekend that there are no boats on that bay. So, I would like to see those restrictions cut down a little bit. Say to June 1st and September 1st. As far as congestion is concerned, I feel that it's somewhat unfair to cut us off completely on those days. People can come and go from all over the state and pile their boats in there with no restrictions. I don't feel that that lake was made for just boats. I mean, it's made for myself as well as you or the next fellow. Our operations are so small that I can't see how it can interfere. Sundays in the afternoon, if it's busy, I don't fly. I control my operation by the traffic. I think you may find that everyone that is based on that lake does the same thing.

Mr. Lawrence McCabe: Do you have an association of pilots on your lake?

Mr. Schauss: No, we do not have. I have tried to contact some of them. Well, I didn't know about this meeting until 12 o'clock last night, so I didn't have any time to prepare, but I know some of the fellows are very interested in it, and they are

interested in seeing that the operation is carried on safely. I think most of you fellows, I know you know the situation, that I can see more of that lake coming into land than you can from a speedboat. So that if there are any obstructions, you can see a body floating out in the middle of the lake there, from almost any height. Another thing I think, we are trained in the operation. I carry, I think it's three or four licenses and permits on operating that seaplane. People who go down and buy a high powered speedboat and they can just come out and dump it in the lake and tear around almost anywhere they desire. So I think the seaplane operation is a very safe one from the standpoint of the training that each pilot has had, before he is even allowed to fly that by himself.

Commissioner Lawrence McCabe: Mr. Schauss, how many hours a year do you fly your seaplane?

Mr. Schauss: Oh, probably fifty normally. The last two years I didn't, because I had a very sick wife and I just had to stay home and take care of these things. But normally it would be about fifty hours a year.

Commissioner Lawrence McCabe: During this, the fifty hours of flying, how many landings and takeoffs would you say you do at Minnetonka?

Mr. Schauss: Not very many. Not very many. Probably a couple a week. That would be about it. Sometimes I would do more in a week, but then there would be a week or two of inclement

weather that I didn't fly.

Commissioner Lawrence McCabe: When you fly, do you fly locally or do you go up to northern Minnesota?

Mr. Schauss: That varies, quite often locally for an hour or two at a time. I don't make a practice of coming and going, at least when there's any boat traffic at all.

Mr. Harstad: Do you take off from St. Alban's Bay?

Mr. Schauss: Yes, I do.

Mr. Harstad: Is St. Alban's Bay, right, the first lake off Highway 7 as you come into Excelsior?

Mr. Schauss: That's right. It goes from Excelsior itself down to the automobile junkyard. It's about a mile from the long lake.

Mr. Harstad: Well, is Excelsior Bay, I mean St. Alban's Bay, right near the Amusement Park, so I can orient myself a little bit.

Mr. Schauss: Yes, it's north of it or east of it.

Mr. Harstad: Okay, and you cannot get from St. Alban's Bay into Excelsior Bay can you? Isn't there --

Mr. Schauss: You mean to taxi?

Mr. Harstad: Yes.

Mr. Schauss: No, there's a bridge. I could push it sideways through.

Mr. Harstad: There is a bridge over it?

Mr. Schauss: Yes, that's right.

Mr. Harstad: The regulations prohibit your taking off from

St. Alban's Bay.

Mr. Schauss: Well, I suppose they do. That's what I'm up here for.

Mr. Harstad: I just wanted to make sure that you weren't being misled or haven't misunderstood. If these were passed how would you get your aircraft into Excelsior Bay? Would it be impossible or impractical?

Mr. Schauss: Well, it would be impractical, yes. Definitely impractical. I could taxi over the bridge and push it through sideways, but that's the only way I could get out of there.

Mr. Harstad: How do you do that?

Mr. Schauss: I don't. I fly out of there.

Mr. Harstad: I know, but how would you fly out of there?

Mr. Schauss: I wouldn't do it in the first place.

Mr. Harstad: It's impossible and impractical?

Mr. Schauss: It's impractical, not impossible, but it's impractical. I have had no trouble operating there. I can go out either direction with two-three-four hundred feet of altitude to spare. So I'm not crowding the houses. I can go out over 98% of the time. I go out over the bridge.

Mr. Harstad: Do you now own a home on St. Alban's Bay?

Mr. Schauss: Yes, I do. I have for twenty years.

Mr. Harstad: Are there any other aircraft permanently based on St. Alban's Bay?

Mr. Schauss: No, there aren't.

Mr. Harstad: Has there ever been any other aircraft on St. Alban's Bay?

Mr. Schauss: Yes, there was a few years ago. There was a J-3, I guess.

Commissioner Lawrence McCabe: What type of aircraft do you fly now?

Mr. Schauss: I fly an amphibian.

Mr. Harstad: Who owned that aircraft and what type was it?

Mr. Schauss: The J-3? Well, it was a regular J-3 cub.

Mr. Harstad: Who owned it?

Mr. Schauss: I don't know what his name was. He's been gone many years. It's been many years ago that that has left.

Mr. Harstad: Is there a public beach on St. Alban's Bay?

Mr. Schauss: No.

Mr. Harstad: How many commercial boat yards are there on St. Alban's Bay?

Mr. Schauss: There are two of them right by the bridge. That's -- I forget their name. Used to be All Sports. All Sports, that was right by the bridge there. But their operations -- seldom do the boats come out into the bay. They go out into the main lake. So they aren't conflicting with the operation.

Mr. Harstad: If these regulations were passed, and you couldn't take off from St. Alban's Bay, what would you do with your aircraft?

Mr. Schauss: I don't know. I would have to consider it.

But I could keep it at the airport, but that's a long way off from where I live. It would be a hardship to try to operate under those circumstances.

Mr. Harstad: How many members in your family fly?

Mr. Schauss: Myself.

Mr. Harstad: You're the only person that is using that aircraft on that bay?

Mr. Schauss: That is right. My son flies, but he doesn't live there. I'm the only one that has ever flown the airplane outside of the test pilot, and this gentleman here.

Mr. Harstad: Is there a recommended direction in which to go in and out of St. Alban's Bay?

Mr. Schauss: Only my own recommendation.

Mr. Harstad: What is your recommendation?

Mr. Schauss: Well, my recommendation is to go out the long way of the lake. I go out over the bridge, either out over the bridge or out over the south or northeast corner, which is over the automobile junkyard there, and there are no houses in that area until we get out away from the lake. So it's -- I have no desire to bother the residents around there and I -- that's the reason I do that. I take off 90% of the time over the bridge if the wind is enough to be a factor, I can take off to the north. Because if there is enough wind that I can't take off in the other direction, why there's plenty of wind that I can get, plenty of altitude in getting out of there.

Mr. Harstad: Have you ever had any accidents or have you ever had any complaints from the neighbors, or can you give us a little feel of that?

Mr. Schauss: I never have. The L.M.C.D. did have a hearing on St. Alban's Bay there one night and the whole group there, the hall was full, and every one of them got up and clapped in my favor. So there was absolutely no complaints that I have ever heard. And I have tried to keep in tune with it to see if there were, if there was something I was doing that was going to annoy them.

Commissioner Lawrence McCabe: Any questions? Thank you very much.

Mr. Herbert R. Galloway: Could I put in a few words in behalf of the White Bear --

Commissioner Lawrence McCabe: Please identify yourself, your name and address.

Mr. Herbert Galloway: Herbert Galloway, Dellwood, White Bear Lake. I'm president of Wings.

Commissioner Lawrence McCabe: Would you spell your last name, please?

Mr. Galloway: G-a-l-l-o-w-a-y. I have flown off of White Bear with a seaplane for the better part of twenty years, and I agree completely with Mr. Leirfallom's comments from the standpoint of White Bear. Flying traffic hours of other uses are about the same but you can always find that the bays that are existing there, you can always find an open spot of water where there isn't any

traffic. If it's water skiing, they're in the calm somewhere, the fishing is only good in certain spots, there's always a place to land and take off. The lake is big enough so that you have plenty of clearance by the time you reach shore. Over many houses I don't think there is any problem. There are only two seaplanes based on White Bear at the present time. There have been more. Both of us pilots are careful not to annoy the people with the airplane. We don't do numerous takeoffs and landings. I do do a fair amount of weekend flying, but usually to Canada, and these hours would bother some, but not much. So the total period would be 9 o'clock until sunset, whenever that it is. I don't think we have a seaplane problem on White Bear.

Commissioner Lawrence McCabe: How many hours a year do you fly?

Mr. Galloway: Not too many right now. I have about 2,500 hours of seaplane time. It would vary between 500 to 1,500 hours.

Commissioner Lawrence McCabe: On your seaplane?

Mr. Galloway: Yes. I fly a twin, that's what gives me most of the time.

Commissioner Lawrence McCabe: Anything else to add to your statement?

Mr. Galloway: No, not unless somebody has some questions.

Commissioner Lawrence McCabe: Anybody have any questions of Mr. Galloway? Mr. Harstad?

Mr. Harstad: No, I have no questions.

Mr. Galloway: Thank you.

Mr. John Lindberg: My name is John Lindberg, Manager of Wings, Inc. We have a commercial seaplane operation operating in the Mississippi River, St. Paul Airport. We have had this operation for eight or nine years and we put restrictions somewhat beyond what the rules cover on our own operations. As far as operating on various lakes and on weekends, I would agree with Herb and with Mr. Lierfallom as far as the restrictions. I don't think they're necessary from the dates given in the proposed regulations. We pretty much will cut out the weekend flying, except possibly at the first session in the morning, 8 o'clock session, on all these areas excluding the -- well, except for the Mississippi River. After Labor Day there is very little weekend traffic, as far as hampering our seaplane operations on weekends. I would say after the 1st of September or Labor Day, at least we are pretty free to operate when we need to. As far as the Mississippi River goes, there are very little pleasure traffic. The main problem is the barge traffic on the river, commercial barge traffic. So there is occasional pleasure boating, but there is usually just the barges, and they cause very little restrictions on our operations.

Mr. Harstad: Did I understand some restrictions --

Mr. Lindberg: We placed this on our own instructors, as far as not instructing on Sunday afternoons. We operate primarily for training purposes on the St. Croix Lake, St. Croix area, and with a few operations at Bald Eagle, Rice Lake and Lake Elmo. But in

running a commercial operation we do have to be aware of our public operations also. Not only for the safety, but the noise complaints. We try to avoid any congested areas.

Commissioner Lawrence McCabe: How many airplanes do you operate?

Mr. Lindberg: One, and that is operated with an instructor at all times. There is no run or solo flying by the students.

Mr. Harstad: And where do you say you conduct your training flights from?

Mr. Lindberg: The seaplane is based on the Mississippi River at the downtown airport.

Mr. Harstad: But where do you conduct your training from?

Mr. Lindberg: The primary training is done on the lake, St. Croix. The St. Croix River, between Hudson and Prescott, would be the extent of the St. Croix we use.

Mr. Harstad: So the only restriction you have is Sunday training?

Mr. Lindberg: Saturday and Sunday.

Mr. Harstad: Saturday and Sunday.

Mr. Lindberg: And this would apply mostly to the months of June, July and August.

Commissioner Lawrence McCabe: Does anybody have any questions? Thank you very much. Mr. Notebloom, would you like to make a statement?

Mr. Art Notebloom: Well, my question is, as I said before I

tried to find out how many operations we have that are commercial in this area.

Commissioner Lawrence McCabe: We have given you that information.

Mr. Notebloom: As I understand it, it's three, is that right?

Commissioner Lawrence McCabe: I don't think it's that many. Three, counting the Mississippi.

Mr. Notebloom: Yes.

Commissioner Lawrence McCabe: In the metropolitan area.

Mr. Schauss: Mr. Chairman, may I ask you a question? It's a simple question. We now have a record of what has been said, is there any practical need of supplementing it with written material?

Commissioner Lawrence McCabe: Only if you wish to.

Mr. Schauss: I would do it if it was of some value.

Commissioner Lawrence McCabe: If you feel that you want to emphasize what you said by putting it in writing or maybe you have some additional information or a document that you want to submit, we would be very happy to receive it.

Mr. Schauss: Thank you.

Commissioner Lawrence McCabe: Does anybody have any other questions, not necessarily questions, added information or facts they would like to make pertaining to Aero 12?

Mr. Huseth: I would like to just make one.

Mr. Harstad: Rise, please.

Mr. Huseth: I'm Don Huseth, Flying Cloud Field. I would just like to make one statement. The letter from the gentleman from Minnetonka, I would wholeheartedly enforce the same thought as he conveyed in his letter.

Commissioner Lawrence McCabe: Which letter was that?

Mr. Harstad: That is the letter from Frank Mixa, Executive Director of the Lake Minnetonka District.

Mr. Huseth: Right.

Commissioner Lawrence McCabe: Do you support his feelings or their feelings?

Mr. Huseth: Right. There's a point back here that we went through last year, as far as Minnetonka, which we pretty much adopted, which we do at our -- which we do out of our operation.

Mr. Harstad: Now, who are you speaking for?

Mr. Huseth: I would just like to comment on this. I'm speaking for Thunderbird Aviation and the King Film Club which is a seaplane club based at Lake Riley, just west of Flying Cloud. What we did last year as far as the area out there, which is written here, no training on weekends and holidays, and then they came up with what would consist of a training flight as a series of more than one landing and taking off in the same designated area of the lake. So, we would pretty much stay away from training on the heavy weekends. I feel I think as everyone else here, that until June and after Memorial Day, you hardly see much activity on any of the lakes in the area. I believe that King Film,

members of this club, would use this aircraft flying out on weekends, coming back in, and this would somewhat be restrictive as the hours and for the same reasons that have been set forth here before. I have a feeling that if you continually are training in one area, you go into any bay on Minnetonka or any one of these lakes and you continually are working that lake for two hours, it's going to raise some tempers around there. So we in our operation try to move to an area. Not work to death one area, and of course stay out of the areas when there's a lot of traffic out there. I think any pilot who would land on Lake Minnetonka on a Saturday or Sunday only does it once when there's congestion on the lake, because of -- well, I guess just rough water. I think that's about all I have to say.

Mr. Harstad: Mr. Huseth, that's called King Film Flying Club?

Mr. Huseth: Yes.

Mr. Harstad: And it's on Lake Riley?

Mr. Huseth: They base their aircraft on Lake Riley.

Mr. Harstad: How many aircraft are based there and how many active members are in that club?

Mr. Huseth: Ten, I believe.

Mr. Harstad: That is exclusively a seaplane club?

Mr. Huseth: Right.

Mr. Harstad: Are you an officer of that club?

Mr. Huseth: No, I am affiliated with the club, but I'm not an officer.

Mr. Harstad: Affiliated through Thunderbird Aviation?

Mr. Huseth: No. This is separate. Thunderbird Aviation also has seaplane training, which we do.

Commissioner Lawrence McCabe: Any other statements on Aero 12A?

Mr. Jon H. Roadfeldt: Yes. John Roadfeldt.

Commissioner Lawrence McCabe: Will you come up here please, it makes it easier for the court reporter. State your name and address.

Mr. Roadfeldt: Jon Roadfeldt, address is 1528 West Sextant, Roseville. I'm a little bit late, for which I apologize, but from what I can gather from this Section 12A, is what I've read here and what I have heard, I would go along with it. I would like to comment that the restrictions, while they don't -- I have an airplane on Lake Owasso I should add, I have one that's been based there on the southwest corner for the last three years. The restrictions don't apply to Lake Owasso as I can see and I would like to comment that I would be in sympathy with what Jarle said, as far as the restrictions. If they were to go into effect, I think these particular ones may be broader than what they would have to be, and more restrictive than what they have to be. Personally, Saturday noon to just about sunset, and Sunday noon to just about sunset, I've never even attempted to. Primarily from Memorial Day or whenever, about when school lets out, to about the 4th of July, then the newness has worn off the boats and traffic

goes down. During the week there is absolutely no problems and in the morning I've never had any problems. I think 9:30 to 5:00 may be a little bit broad and the dates a little bit broad. I would kind of go along with 11:30 or 12:00 would be ample. I think again daylight saving time usually 6:00 it's cut out. But otherwise, that's about the only comment. I think the restrictions could maybe be a little bit closer to the actual congestion time.

Commissioner Lawrence McCabe: Thank you. Please give your name and your address.

Mr. Charles Trapp: My name is Charles Trapp, T-r-a-p-p, 1709 - 10th Avenue West, Shakopee. I own a land plane, fly approximately 200 hours a year. I have flown seaplanes and landed various lakes around the state of Minnesota. I own high speed motor boats and a fishing boat, I own a snowmobile and I have seen abuses in every aspect of recreation that there is, by a very small percentage of the people. I am sure that there is, with the seaplanes, no exception to this. However, those few should be brought to justice. I feel that the recreation industry -- I'm not saying seaplane flying is a recreation, because I know that's not true, there's a business there. But the ones that are careless in the operation of -- regardless of the type of recreation, whether it be flying, snowmobiling, motor boating, surfboards, they are going to raise the ire of the residents in the area. I personally feel that the F.A.N. in general is very lax in their enforcement of the air regulations, not only in land based planes, but also in every

aspect of it. Now, I don't mean to get out here with a big stick and crucify everybody because they make an error. Careless operation is one thing and the difference between careless operation on an airplane and careless operation on a snowmobile and a motor boat, you only get one chance in the airplane. It was very unfortunate the accident where that young girl was involved in, that seaplane accident, and I don't know the details of that accident, so I'm not to comment on it, except that it was very unfortunate. But I feel if the restrictions are going to be imposed upon any given area, 100%, that it's an injustice of those people that are trying to be considerate of their fellow man, residents, their neighbors and their fellow collegues, and as well their fellow recreationers. I agree that the restrictions are needed and I congratulate you for taking steps on these regulations and applying them. I hope that if these restrictions are put into effect that they be enforced. They are no laws on the books worth two cents if they are not enforced. Again I want to say that as for you people taking these steps, but if you didn't take steps to enforce them, they don't mean much. Thank you.

Commissioner Lawrence McCabe: Thank you, Mr. Trapp. Anybody else have any statements on Aero 12A? If not, we'll move on in time and finish up this chapter.

Mr. Harstad: Next is Aero 13, on unlicensed landing areas. Is there anyone interested in Aero 13 Statement of Need, herein known as Statement of Need which will be made a part of the record?

Next is Aero 14 on public heliport and privately owned commercial heliports. Is anyone interested in commenting upon that rule, herein known as Statement of Need regarding personal use landing area? It will be made a part of the record. Aero 15, any comments on Aero 15? Our Statements will be made a part of the record, as well as Aero 16, personal use landing areas. Does this party has indicated a comment there, so perhaps Mr. Patz could read the Statement of Need as to Aero 16.

Mr. Patz: Aero 16 on Page 33, Rules and Regulations for Personal Use Landing Areas. We haven't handled any of the requirements for any of the various personal use landing area licenses.

Mr. Harstad: Any comments on Aero 16?

Mr. Harry Clement: Harry Clement, C-l-e-m-e-n-t. We go to No. 4, non-commercial use. A personal use landing area shall not be used for any commercial purpose except for aerial spraying and dusting. At that point I would like to include and parachuting, which activities may be conducted from a personal use landing area. Use that one or two words entered in there right after that. That's on Page 34, No. 4. The reason being is that parachuting is discouraged on most commercial airports and if we could get it on non-commercial airports, I think that this would be one of the remedies to this problem.

Commissioner Lawrence McCabe: Mr. Clement, are you talking about a club or parachute school?

Mr. Clement: Well, basically in the new regulations there is

no difference stated between clubs and schools. The Department has seen fit to combine these two. So, because of this, I guess I would have to be speaking of both.

Commissioner Lawrence McCabe: You feel that they should be allowed to use a personal use landing area then?

Mr. Clement: With its limitations. In other words, the landing area would have to meet the proper regulations and the rest. But yes, I think that would be a fair recommendation.

Commissioner Lawrence McCabe: Do you mean that when you say that proper situation, do you mean that the person using the landing area should be at least the minimum number required for public airports, such as 2,500 feet or 50 feet wide?

Mr. Clement: Definitely.

Commissioner Lawrence McCabe: Okay. Thank you.

Mr. Harstad: May I have your address, Mr. Clement?

Mr. Clement: 8054 Grafton, Cottage Grove, 55016.

Mr. Harstad: Well, I think that covers all of Chapter 2. Do you have a question?

Mr. Eugene Kasper: Me, I have. I'm sorry.

Commissioner Lawrence McCabe: This is on Aero 16.

Mr. Kasper: My name is Eugene Kasper, my address is 6713 McGuire Road, Minneapolis. I represent Twin City Cloud 7, Inc., which is a flying club, which is based at Flying Cloud.

Mr. Harstad: Give me your name again?

Mr. Kasper: Eugene Kasper, K-a-s-p-e-r. I have a question

on the personal use of seaplane bases. Does that restrict the club use of a private area? For example, Lake Riley?

Mr. Harstad: Are you talking about Page 34 (e)?

Mr. Kasper: 34 (e), yes. It says personal use landing area, I believe it is described as a non-commercial use, and a flying club normally would be based on the same type of system. What do you say to its members? I wonder if you'd --

Mr. Harstad: Just give me a little help here. We are talking about (e) on Page 34?

Mr. Kasper: We are talking about (e). A personal use seaplane base license shall apply to a landing area from which operations are conducted, and to the water area designated for its operation. Two or more bases located on the same body of water under different ownership or control, each base shall obtain a separate personal use seaplane base license. The site must also meet the above requirements set forth in Aero 16. Okay. Now, what my question is in this case -- it might not be just (e). It might be the whole personal use landing area requirements. My question is, okay, No. (b) (4).

Mr. Harstad: As a personal use landing area shall not be used for any commercial purposes. And if it's a club using this, it will be considered commercial.

Mr. Kasper: But, if it were a commercial flying club?

Mr. Harstad: Under the rule, yes. If it is not a commercial flying club under the rule, then okay. If it's not a commercial

flying club under the rule, could you agree with that Commissioner?

Commissioner Lawrence McCabe: Yes. If you do not have a personal operator's license, then yes. Yes, you truly are a flying club, and under the definition of flying club then we would agree that you could use a personal use landing area.

Mr. Kasper: Okay, thank you for clarification.

Mr. Harstad: Then let's take up the second chapter that I missed.

Mr. Clement: I would like to waive Chapter 2 to the flying club, let them go ahead.

Commissioner Lawrence McCabe: Take Chapter 3, then. We'll just continue on with Chapter 3.

Mr. Patz: Aero 17 through 27.

Mr. Harstad: Okay, Aero 17, on General Commercial Operations Regulations, starting on Page 35. Anybody have any comments on Aero 17? If not, we'll make our Statement of Need there a part of the record. Aero 18 on Page 39 concerns flight schools. Does anyone have any comments on Aero 18? If not, we will make Statement of Need as to Aero 18 a part of the record. Aero 19 on Page 41 concerns ground school and aeronautical correspondence school. Any comments on Aero 19? If not, we'll make our Statement of Need as to Aero 19 a part of the record. Aero 20 on approved schools, on Page 43. I think there are no changes or no significant changes on Aero 20. Aero 21 is on aircraft charter, Page 45. Anyone have any comments on Aero 21? We'll make that Statement of Need a part

of the record. Aero 22 is on aircraft rental or leasing, on Page 46. Any comments on Aero 22? Aero 22 we'll make that Statement of Need a part of the record. Aero 23, air ambulance service, on Page 48. Any comments on Aero 23? We will Aero 23 Statement a part of the record. Aero 24, aerial spraying or dusting, on page 50. Any comments on Aero 24? We will make Aero 24 Statement of Need a part of the record. Aero 25 is on aircraft servicing, maintenance and repairing, Page 52. Any comments on Aero 25? We will make that a part of the record. Aero 26, on commuter air carriers, on Page 53. Any comments on that? We will make Aero 26 Statement of Need a part of the record. Aero 27, flying clubs, Page 54. How many here have comments on Aero 27? Two gentlemen. Okay. Will you read the Statement on Aero 27?

Mr. Patz: Okay. Aero 27, Page 54, flying clubs, was re-organized and renumbered to the new format to make Aero 27 more easily understood.

Mr. Harstad: Okay. No substantive changes were intended in our reorganizing of Aero 27. But if you have any comments we would hear them and would then -- yes?

Mr. Ron Wiirre: My name is Ron Wiirre, with the Metropolitan Airport. W-i-i-r-r-e. One question for clarification purposes only. I don't happen to have my copy of the regulations, and I was just curious as to what the reorganization on Aero 27 is. You mentioned that it was for clarification purposes, and I want to know specifically what the reorganization was.

Mr. Harstad: Well, Aero 27, as formerly written began with a series definitions, most of which came out of the statutes. So as you read Aero 27, you started reading a group of definitions and didn't know why you were reading the definitions. As it has been rewritten, we started with one definition, that is the definition of a flying club and then we state some of the basic rules before we start defining the terms. The terms being aeronautic instructor, air instructions, etc. So, there are no doubt some other statements I could make as to why we are reorganizing it, but it would be hard to read, hard to follow, and we restructure it by putting the definitions in the proper places rather than at the beginning.

Mr. Wiirre: Okay. My statement then, Commissioner and Mr. Harstad, would be that the Metropolitan Airport's Commissioners Staff will wholeheartedly endorse any clarifications that will state that a flying club is in fact a flying club. We have experienced some distortions and prostitutions of the flying club concept to our airport.

Commissioner Lawrence McCabe: Do you want to submit to any questions?

Mr. Wiirre: Certainly.

Commissioner Lawrence McCabe: Anybody have any questions of Mr. Wiirre? Thank you very much.

Mr. Harstad: Thank you, Mr. Wiirre.

Mr. Harstad: Mr. Kasper, you wanted to make a statement?

Commissioner Lawrence McCabe: Identify yourself.

Mr. Kasper: Eugene Kasper, 5713 McGuire Road, Minneapolis. I represent Twin City Cloud 7, Inc., a non-private flying club at Flying Cloud.

Commissioner Lawrence McCabe: You are making a statement on Aero 27?

Mr. Kasper: And I have a question. Can I ask a question?

Commissioner Lawrence McCabe: Let's hear your statement first.

Mr. Kasper: Okay. I agree that the definitions should be cleared up regarding flying clubs. I know there have been misunderstandings of the term flying club and that the intent under the law is that a flying club should mean non-profit only. Since you are changing the regulations, there are some areas that give us some problems and they are not major. After No. 4, under (d), it's on Page 55.

Mr. Harstad: What page is that?

Mr. Kasper: I would specify that the share in the club's assets be stated by percentage or dollars. The club goes up and down in members at any time. It's difficult to keep the percentage consistent, so you might always have a good idea of what the dollar share is, in the case of a corporation or a partnership.

Mr. Harstad: You are saying you would like to see it stated by percentage or dollars?

Mr. Kasper: Or dollars, right. This would help, and the same

with the voting rights.

Mr. Harstad: Where is that?

Mr. Kasper: It's No. 5 (d).

Mr. Harstad: And some of you would like to have the voting rights stated by percentage or dollars?

Mr. Kasper: That is correct. And in (d) (8), it will be very difficult for us to prepare a P&L statement. The way we account for our club, is P&L. This would mean an approvement of accounting and a lot of other things that we do, the way we arrive at our aircraft also would be open for question.

Mr. Harstad: What we would appreciate is that you acquire a balance sheet or a statement of all of the disbursements, and I have an example if you wish, rather than a P&L statement.

Commissioner Lawrence McCabe: Okay.

Mr. Kasper: Okay. That is okay. The one other question I have is; is it the intent of all this to restrict airplanes and flying clubs, either private or commercial, from instruction, air instructions?

Mr. Harstad: The intent of the rules is to prohibit clubs, as clubs, from promoting and engaging in air instruction.

Commissioner Lawrence McCabe: Commercial operations.

Mr. Harstad: For hire. Let me just clarify this a bit. If you are a member of a flying club and you know an instructor that you want to have teach you, or if you have him come out and teach you and you pay him some dollars, that is not a commercial opera-

tion as we have interpreted the rule. But if the club starts advertising for members, saying that the club will train you and then the member of the club pays the club and the club pays the instructor, that is a commercial operation and is prohibited by the rule.

Mr. Kasper: Well, it was promoted by the old rules. Does the flight instructor now have to become a flying school employee?

Mr. Harstad: No.

Mr. Kasper: And the club can pass restrictions as to what class of aircraft, and restrictions on the type of instruction in the aircraft? Can it not?

Mr. Harstad: Yes.

Mr. Kasper: Okay. Thank you very much.

Commissioner Lawrence McCabe: Do you want to submit to any questions by anybody if anybody in the audience has any questions?

Mr. Kasper: Okay.

Commissioner Lawrence McCabe: Does anybody have any questions of Mr. Kasper?

Mr. Harstad: None. Thank you, Mr. Kasper, for your statements.

Mr. Patz: That ends up Chapter 27A.

Commissioner Lawrence McCabe: 27A would be finishing up Chapter Three.

Mr. Harstad: Any comments on 27A, which concerns Dealers on Page 60?

Commissioner Lawrence McCabe: Mr. Erickson has a statement.

Mr. Harstad: Probably we should read the Statement of Need, which we haven't done on Aero 27A. Aero 27A is a new statute or is a new rule, and subsection (a) defines a dealer, using the statutory definition. Subsection (b) states that the applicant must meet all of the requirements of Aero 17. And Subsection (c) requires the faithful performance bond covering customers. 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. Did you have a comment on Aero 27A?

Mr. Curtis Erickson: I just have a question. My name is Curtis Erickson, I represent the Minnesota Aviation Trades Association, and I am wondering here if the bond that's required to be posted already, $5,000, would this be in addition to the $5,000 bond he would also have to have if he is in flight school? Because most of the smaller airport dealers already have a flight school and they sell airplanes or they have a dealer's permit. So would they be required to, would this one $5,000 bond cover both items?

Mr. Harstad: I don't know. I haven't thought of it before. You have a dealer now, that has one bond?

Mr. Erickson: Well, flight school, that's the only one.

Mr. Harstad: Well now, if he is now a dealer, which most of these people are, selling airplanes, it appears that he would have

to get another bond.

Mr. Erickson: I guess the other question is, what is the price of getting the bond?

Mr. Harstad: I'm not exactly sure in my own mind.

Mr. Erickson: The cost would be based on the amount of airplanes he is selling?

Mr. Harstad: I can't answer what the cost of the bond might be. I have some guesses but I'm reluctant to guess about it.

Mr. Erickson: I have no quarrel, I think, with the $5,000 bond if he is a dealer. However, if the person already has one bond, I would think that would cover him, if he already had a bond for being in flying school.

Commissioner Lawrence McCabe: Mr. Erickson, if there were to be one bond, and it would be $10,000, would you object to it if there was just one bond? With the cost of everything going up, and one bond of $10,000 would satisfy all of it, both needs?

Mr. Erickson: For any type of flight operation? I'm not exactly sure of this, I think it's somewhat on the order of $5,000 for each operated. I wonder if it would be the same price for two dealers. Would it be twice that much or three times that much. I would like to find out.

Mr. Harstad: I don't know the answer to that. I think you'd better call a bondsman or your insurance broker and see what the cost is, and then we will check into it.

Commissioner Lawrence McCabe: Maybe you should submit your

information to us in writing, so we can include it in part of the ruling.

Mr. Harstad: If you can write a letter within ten days and let us know your association's attitude on whether there should be one bond of $10,000 or two bonds of $5,000. Now, you can contact your insurance broker, and let us know what your views are.

Mr. Erickson: What is the deadline for these comments? The reason I ask is because we have our association membership meeting coming up in January, and this would be one of the items on the agenda. I would like to put this to our membership for comment.

Mr. Harstad: When is that?

Mr. Erickson: It's on January 18th.

Mr. Harstad: I don't have any personal views on it.

Commissioner Lawrence McCabe: I think, if we had the comments in our office by letter, say around the 21st of January.

Mr. Erickson: Okay. Sure, we could at least have that done. Thank you.

Commissioner Lawrence McCabe: Anybody have any other comments on Aero 27A?

Mr. Sherm Booen: May I ask a question if it doesn't refer to what's written?

Commissioner Lawrence McCabe: Sure. You have a statement to make here on 27A?

Mr. Booen: My name is Sherman Booen, I'm the attorney for the Minnesota Aviation Trades Association, at 6711 Nicollet Avenue,

Minneapolis. My statement would be, exactly the same as Mr. Erickson's. I think that is a good requirement, but I believe we should look into the question of flight school operators who are already holding bonds. Whether it's one $10,000 or two $5,000, the cost is going to be the same, I assume. We can't know that but it's generally $10,000 or two $5,000. So the only work would be just to double it and if it could be made so that one bond would cover all of it, it certainly would be more than satisfactory to the operators. I have had several telephone calls recently and that's why I bring up this again. I cannot refer back now to subsection (8), but I would like to, or to the entire statute, but I would like to comment on the dealers. Any person regularly engaged in the business of manufacturing or selling, etc. and so on, having established a place of business for the trade, sale and display thereof and having in his possession new and unused aircraft. Does the statute also cover the fact that he must have this on an airport or can he establish this business at any place. Does anyone know that, and would that be included in the statute?

Mr. Harstad: Mr. Holey, what is your -- do you have a recollection about that? I thought that in order to conduct a commercial operation you had to have a base on an airport.

Mr. George Holey: That is right.

Mr. Harstad: And if you were selling aircraft, I thought you had to have a base on an airport, but I'm not able to make a definite statement now, until I review it, but I could do that for you.

That's my general understanding, if you are selling airplanes you have got to be on an airport.

Mr. Booen: Well, frankly it was mine also. Now, that brings up the second question in reference to the man who does not have airplanes, he never has any in his possession, as such, because he is selling the aircraft for person A to person B, but he never does have any in his possession. In other words, he is never the owner of the aircraft, he is the broker, I guess. Would the same requirements apply to him? I'm bringing this question up for a specific reason. I would like to clarify my own thinking on it.

Mr. Harstad: I think we have had some discussion about that kind of a rule. It comes under Aero 17 in its interpretation of Aero 17A, which deals with the commercial activity dealer which includes the operation of aircraft, then you have a place of business on an airport, and the question was, does this dealer with an operation of aircraft -- that's see if we redrafted Aero 17J, changed that in any particular period. The change on Aero 17J, on Page 36, now reads: 1; each applicant for a commercial operator's license must have a place of business. 2; says that 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. And subsection (bb) under there, it says that 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

is excluded. Now, I don't know the answer to your question. What you're asking is whether or not brokering in aircraft is an operation of an aircraft under J (2) on Page 36. I think it comes down to that. I don't know the answer concerning --

Mr. Booen: Basically I want to know, is a broker a dealer, and would he be required to have a commercial license?

Mr. Harstad: I have never read an opinion on that, but I would think that a broker is a dealer, but I'm willing to listen to some arguments that he is not.

Mr. Booen: Well, frankly, I don't know either. I wanted to get some information on this, because I have had some questions coming to my office regarding this and I really have had no answer. That was the reason I brought up the question, because I really don't know.

Commissioner Lawrence McCabe: I think it's a good question, Mr. Booen, and I think it's a legal one. I think that the legal people should review it and come up with the answer.

Mr. Harstad: What does the broker do?

Mr. Booen: The dealer will buy the airplane from a distributor and put it in his possession. He buys it for a cost, less his percent, and it remains in his possession then. It's in his possession and he may even use it for a period of time until it's sold. Which of course is a very straightforward way of doing business with a broker. Any kind of operation and particularly in aircraft, an airplane, never belongs to the man who is making the

transaction, the broker. I might sell my airplane to Mr. Pearson, and I would ask Mr. Holey to sell it for me, because he has the knowledge and contacts throughout the state. He will actually find a buyer for me, but he never owns my airplane. So he is, as far as I know, referred to as a broker. And then, of course, the question comes up, is a broker a dealer, and if he is, must he be. Because we obviously have both kinds at that point, there are people on the airports who are dealers, but who also do some brokering, and we have some people who are not on airports who are brokers. Is that the case in automobile --

Mr. Harstad: Does the automobile business? Maybe there's a distinction between a dealer and a broker.

Mr. Booen: I really don't know.

Mr. Harstad: I'll give you the definition of a dealer. It says that a dealer means any person regularly engaged in the business of manufacturing or selling, purchasing, and generally dealing in new and used aircraft. I think that a broker is a dealer.

Mr. Booen: Well, under the way you read it there, I would have to say it could be the other way too, because he is not dealing in them, he is in some respects actually just acting as a go-between.

Mr. Harstad: Would you favor a broker being unlicensed?

Mr. Booen: No, I have no opinion on this. I'm just trying to clarify the situation for some of the members of my association. As I have said, we have some members who are licensed dealers by

the State Department of Aeronautics. They may do a little brokering, but on the other hand we have someone who is brokering aircraft who is not on an airport and has no established place of business, except the fact that he holds himself out to be. At that point now, my question is, and it's not mine, it has come to me, is this man legal in his operation?

Commissioner Lawrence McCabe: It's a good question. I think it's going to take some legal research and opinions, and we will come forth with something in answer to your questions. Do you have any other statements to make to that particular part of the regulation?

Mr. Booen: No, I don't think so. I think that's everything. I think I will discuss it with Mr. Erickson to see if we could find one that would double, it would be great.

Commissioner Lawrence McCabe: Thank you. I think we'll take a break for ten minutes, and we will adjourn back here at 11:20.

(The meeting was adjourned for ten minutes.)

Commissioner Lawrence McCabe: Chapter Seven, Aero 35 to 39.

Mr. Harstad: Chapter Seven, Basic Safety Regulations Governing Parachuting and Skydiving. We have a Statement of Need prepared regarding Aero 35 through 39, which we will make part of the record, and which we will read if anyone requests. Ken, you can read the Statement of Need as to Aero 35 through 39. I think it's best to read the entire Statement, then we can talk about all of the rules at the same time.

Mr. Patz: Take Chapter Seven, Aero 35 through 39 starting on Page 75, Proposed Regulations. The Minnesota Department of Aeronautics is proposing changes in the rules and regulations that cover Aero 35 through 39, which covers the basic safety regulations concerning parachuting and skydiving. Some of the proposed changes were suggested by parchutists and Department of Personnel. Some of the changes made parallel the rules set forth by the U.S.P.A. Parachute Association. And this will make the parachuting rules and regulations as proposed by the Department easier for its parachuters to understand and comply with. Aero 35, Definitions of Student Parachutist: (a); no changes. (b);no changes. (c); P.C.A., the Parachute Club of America, is now changed to read U.S.P.A., United States Parachute Association. (d); Parachutist, a parachutist may now hold a Class A license. That was not in the old regulations. (e); Equivalent of a License, minor change to show that the parachutist has had an entry in his log book by qualified personnel, such as an Area Safety Officer, Club Safety Officer, instructor or a jumpmaster. F.G.H.I. equivalent of a Class A, B, C, or D license. The changes here in the regulations are minor, such as changing yards to meters, and the number of times a parachutist must make a certain stable delay jump. Before a Class A license is given,the student must have in training, must have had training for unintentional water landing. Aero 36, Safety Regulations for Parachutists. That is on Page 78, Proposed Regulations. (a); a person wishing to engage in parachuting will

have been given instructions from an instructor. (b); This covers a minimum training program for a parachute jumping club, that must be approved by the Commissioner. (c) and (d); Minor word changes except that if a new jump area, not previously approved, request must be in ten working days instead of five. This is changed due to the increased work load on the inspector. (e); Deleted. Only logbooks so signed will be accepted as evidence for a commercial parachuting license. This sentence is not necessary. (f); No change. (g); Change wording from age 21 to age of legal majority. (h); Minor word changes, a and b. This is deleted due to changes in equipment. (i); Minor change from fifteen seconds to twenty seconds and the type of automatic release for the main or reserve parachute. (j) and (k); Minor changes, but it does not change the intent. (1) and (m); No changes. The old paragraphs of F, I, J, K, and L because it would all be in an improved program submitted to the Commissioner. (n); Minor word changes, does not change the intent. (o); No change. (p); No change. (q); Minor word change that does not change the intent. (r); No change. (s); No change. (t); Maximum ground wind is changed to maximum ground wind for student parachutist. (u); Was changed to read, before a jump, wind direction and ground wind speed shall be determined by qualified personnel. The rest has been deleted. (v); No change. (w); We changed yards to meters. (x); No change. (y); The only change is in (2), change 14,500 feet to 12,000 feet. (z); No change. Aero 37, Page 84, Commercial Parachute Jumping - Exhibits.

The only change in Aero 37 was the change PGA to U.S.P.A. Aero 38, Page 85, Proposed Regulations. Parachuting Schools and Clubs. Aero 38 and 39 were combined and rewritten, because we feel there is no distinction made in these rules, between the parachuting school and the parachuting club. Aero 39, Page 88, Proposed Regulations. Comment; The existing Aero 39 sets forth the rules and regulations for a Parachute Jumping Club. Aero 39 has been combined with Aero 38 which is entitled Parachuting Schools and Clubs; therefore, Aero 39 has been deleted in its entirely and is RESERVED FOR FUTURE USE.

Mr. Harstad: Any comments on Aero 35 to 39?

Mr. Clement: Harry Clement, 8054 Grafton, Cottage Grove. I represent the United States Parachute Association and the jumpers in the State of Minnesota, excluding the drop zones at Clear Lake, Minnesota. I claim no reference to this organization at all. They have not seen fit to show themselves today to defend either their operation, nor the letter of complaint, filed specifically against their operation, not against jumping in general in the State of Minnesota. The jumpers in the State of Minnesota had a meeting, and we would agree with the intent of the regulations. There are a few things that we do disagree with and these will be presented to the Commissioner in writing so there should be no question. One of the things that I would like to point out, is what Mr. McCabe said at the opening of the meeting. We are looking for education rather than regulation. Second one is again

going to another person's comment, Mr. Trapp. There are a small number of violators and we need enforcement on those individuals. If you let the people operate who operate properly and put the people out of business who don't know how to operate, it will be a much safer state for aviation in general and parachuting. Thank you.

Commissioner Lawrence McCabe: Thank you, Mr. Clement. Any questions?

Mr. Harstad: Can you have your comments done by -- when will we be receiving your comments?

Mr. Clement: You will have them this week, you will most likely have them this afternoon.

Commissioner Lawrence McCabe: Mr. Wiirre, you have a statement?

Mr. Ron Wiirre: Ron Wiirre, M.A.C. Operations. On Page 78, Aero 36, (d) (1), this is a section that refers to permission for jumping granted by the airport owner if the jumper is within three miles, I believe.

Mr. Harstad: Yes.

Mr. Wiirre: Within three miles of a public airport. I do have a question of somewhat legal nature, and I would like to address this directly to Mr. Harstad. If such a jump is consented to by the airport owner and is conducted -- if there are any repercussions, such as property damage, personal injury, etc., is the airport owner held partially liable if any litigation should

arise.

Mr. Harstad: Those kinds of questions are impossible to answer as a general matter. You have to, and a lawyer would tell you the same thing, to have specific facts about what was asked of him and what he provided and what didn't he provide and were the agreements oral or written. The best way to find out what legal obligations are would be to find some recent cases where the facts are set forth and a legal conclusion was reached. That's not very helpful to you but I just --

Mr. Wiirre: Okay. The reason I asked, Blaine, is that the airport owner in this specific instance would want to be assured that they would not be a party to any damages, if there were any.

Commissioner Lawrence McCabe: I think that is an agreement you would have to work out with the jumper. You may make some agreement with him, a contract with him, that is spelled out in writing.

Mr. Wiirre: That is what we have done, Commissioner, that is exactly the procedure we have been through. But by the time the jumper is scheduled to go we have a four page legal document, specifically in the case of Lake Elmo Airport, which ends up being signed by something like six to ten skydivers, Boy Scouts of America, Washington County Fairgrounds and a whole lot of parties. What it amounts to, is the A.M.C. gave conditional consent for the jump, that we not be held liable. If that's the procedure, then that's as what we did. But it was a heck of a lot of red tape.

Mr. Harstad: I don't think there is any way in which these rules could help eliminate that problem. Whenever anyone owns land or controls land and allows someone else to use his land, there is a large body of law about the responsibilities by the owner of that land to the people they let use the land.

Mr. Wiirre: But here you see, we are talking about a distance of three miles away from the airport.

Mr. Harstad: Oh, I see.

Mr. Wiirre: I'm not addressing myself specifically to a jump on an airport, as a jump within three miles of the airport.

Mr. Harstad: You are wondering whether you, as the owner of the airport, have any liability to persons whose property was damaged, that may be within the three mile area owned by Mr. X.

Mr. Wiirre: Precisely.

Mr. Harstad: That's a tough legal question, and I'm sure the Over Hymer Office can answer it.

Mr. Wiirre: They did, with a four page document, that was signed by dozens of people.

Mr. Harstad: I guess you'd better go with the Over Hymer Office. It is a tough question, I'll keep it in mind to see what I can do to make it a little easier. Does anyone else have any comments?

Mr. Jim Madsen: My name is Jim Madsen, and I am representing the University of Minnesota Skydivers, and the United States Parachuting Association. I would just, by and large, post my

comments on the regulations that are being submitted, with the letter that Harry is submitting. But I would like to make my feelings known on a couple of areas. Parachuting at the stage when regulations first came out in the state, were more or less in a state of infancy, and we had a lot of things going on that we didn't understand. In a period of time since then, we have grown up quite a bit, and we have established in parachuting, and I am referring to the United States Parachute Association, a great amount of knowledge concerning parachuting and concerning the safe operation both for the jumper, pilot involved and for the general public. I would like to emphasize that the United States Parachute Association will be referred to as an expert body. Several of its pointed members, and I refer specifically within the state to the U.S.P.A. area safety officers be recognized as experts within the area of parachuting. With this in mind, I would like the State Department to give, or to fall back on the opinion of these so-called experts in making decisions regarding the safety of parachuting, both for the parachuting student and in the area concerning exhibitions such as that. And refer to these well qualified people in making any of the judgments that the State has to make during the normal course of parachuting. In specific, I am referring to many of the exhibitions that are jumped throughout the year, which require permission from the State. I know the Commissioner has appointed people beneath him, who are probably well qualified in general aviation and in the legal as-

pect of aviation, but I don't really know of anybody on your staff who could really be called an expert in parachuting from first hand knowledge. When we come to problems with whether or not a particular jump is safe, whether we have a hazard, I would like to recommend that the staff take into consideration the opinions of the area safety officers, if not in fact require their approval in submission for an application for exhibits or any other type of parachuting activity.

Mr. Kasper: Are you in essense asking the State to hire a policeman?

Mr. Madsen: In my opinion, area safety officers don't necessarily have to be a policeman, but I would like to see the State refer to them as experts in the area for judging much of their decisions on what is and is not safe, in regard to parachuting. I can refer to a number of specific instances, and I don't want to bring all of them up now, but in my opinion we have got well qualified people in the area who have the same objective, to conduct a safe parachuting operation, not cause any hazards on the general public, and who have first hand knowledge of the requirements and skills needed in this sport. And the specifics, I guess they will be mentioned in the letter that Harry is submitting.

Commissioner Lawrence McCabe: Is that the end of your statement?

Mr. Madsen: Yes.

Commissioner Lawrence McCabe: Thank you, Mr. Madsen.

Mr. Clement: I have a question that I would like to have clarified. It's regarding the insurance. Under the old regulations, when clubs were separate from commercial operations, we were not required to carry any insurance. Under the new regulations now -- it must be Aero 38, No. 7, gives us insurance under requirements of that insurance. Now, is this specifically on aircraft, since this insurance here does follow on right down as to what any other commercial operation will have, a flying club or dusting up anything. It's the same insurance. So, is this aircraft insurance or is this personal insurance by the individual?

Commissioner Lawrence McCabe: If it's a club, isn't it the insurance of the club to protect the club and its members for the liability and for the property damage, etc.?

Mr. Clement: So we would have in addition to our aircraft insurance another policy of the same figures?

Commissioner Lawrence McCabe: It's like any other fixed base operator, commercial operator, he has an insurance policy to protect himself and his business and the air traveling public. Not his own particular person. This is the way I see it and understand it. Am I correct in this?

Mr. Harstad: Yes. I think that's right. I think the idea is that the parachuting school has to be a named insured, so if they are sued, they will be defended and be able to pay damages.

Mr. Kasper: This could probably be done with a rider to the --

Mr. Harstad: A rider to whose?

Mr. Kasper: To the insurance policy that's covering it, flying these people?

Commissioner Lawrence McCabe: It may not be the aircraft, it may be the individual. Like I saw one parachute jumper land on top of a fabric airplane, put his legs right through the wing. Now, who paid for the damages there, if this was a club?

Mr. Clement: Our club each member is personally insured, but the organization as a whole does not carry insurance, just each member is required by membership.

Commissioner Lawrence McCabe: When the public comes and pays out money, they assume that they are being protected in some shape or manner.

Mr. Kasper: I'm not talking specifically about exhibitions now, this would be going back to a club operation.

Commissioner Lawrence McCabe: But you're accepting money from the students, he may not have that insurance policy you speak of.

Mr. Kasper: Then he wouldn't jump with our organization.

Commissioner Lawrence McCabe: Well, you have to look at the broad picture, you're accepting a student and today you sign him up and this afternoon he makes his first jump later on this afternoon. Well, this is a possibility and these policies would cover any of the individualities that might happen.

Mr. Harstad: You see, the injured, the person whose property

is damaged, isn't probably going to know the name of the person who damaged it. He may know the name of the club.

Commissioner Lawrence McCabe: I'll give you another example. If you brought a studen in this afternoon and he rented your equipment and you took him up and you gave him some instructions and you had an accident, and the student could prove negligence on your part, on the club's part, he would not have any protection nor would the club, until you have a policy like this.

Mr. Kasper: Okay. That's what I wanted was an explanation of that one.

Commissioner Lawrence McCabe: Anybody else have any comments? If not, let's go to the very beginning and start with Chapter One and continue through those Chapters that have not been covered so far in this area.

Mr. Harstad: In Aero 1 - 5, some changes are made in Aero 1 (cc), and on Aero 3. Any comments on either of the changes made in Aero 1 or Aero 3? If there is none, then we'll introduce our Statement of Need as to Aero 1 and as to Aero 3 as part of the record. There were no changes made in Aero 2. There were no changes made in Aero 4. There were no changes made in Aero 5. That brings us down to Chapter Five, Aero 29.

Commissioner Lawrence McCabe: Chapter Four.

Mr. Harstad: Yes, that's right. Chapter Four, Aero 28, General Operation Rules. Anyone have any comments on Aero 28 found on Page 61? We will introduce the Statement of Need to Aero

28 as part of the record. Chapter Five, Aero 29 -31. Any comments on Aero 29 - 31. If there are none, we will make the Statement of Need as to Aero 29 through Aero 31 as part of the record. Next is Chapter Six, Aero 32 - 34, dealing with Traffic Rules and Flight Rules. Any comments on Aero 32 - 34? Which Aero number are you interested in?

Mr. Kasper: 33.

Mr. Harstad: Okay. Aero 32, any comments on Aero 32? Okay. That Statement of Need will be made a part of the record. Aero 33, General Flight Rules, what comment do you have, Mr. Patz?

Mr. Patz: Aero 33, contained on what page here?

Mr. Harstad: 67 is Aero 33.

Mr. Patz: 67 of the Rules and Regulations and Statement of Need on Aero 33 is Section (1) (5), is delete this. The regulation is covered in the Federal Aviation Regulations.

Mr. Kasper: It's delete the regulation?

Mr. Patz: No, it's delete the one section of it.

Mr. Harstad: Okay. Do you have any comments on any part of Aero 33?

Mr. Kasper: On (f), Proximity of aircraft.

Mr. Harstad: On Page 68?

Mr. Kasper: 69. 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 forma-

tion flight except by prearrangement between the pilots in command of such aircraft. Okay, we have no argument with any of that, except that we would like to add on to the end of here, no person shall operate an aircraft in formation flight when passengers are carried for hire unless all passengers are wearing parachutes and the aircraft is above 3,000 feet. And this again will be submitted to you in writing. The reason for this being that in national competition and world competition, flight formation is used for the building of stars. And if we are going to be restricted from practicing this, we'll never be able to compete on the national or world level, with people from our state. That is the reason for that. And if for some reason 3,000 is felt to be too low yet, we'll be willing to listen to a different altitude.

Commissioner Lawrence McCabe: You will submit this in writing?

Mr. Kasper: Yes, we will be submitting it in writing.

Commissioner Lawrence McCabe: We will be very happy to consider it.

Mr. Harstad: Okay, Aero 34 deals with Visual Flight Rules and Instrument Flight Rules. Any comments on Aero 34. Herein known as Statement of Need as to 34 will be made a part of the record. The remaining rules are Aero 40, 41, 42 and 43. Any comments on those rules? If there are none, the Statements of Need as to them will be made a part of the record. So, Mr. Commissioner, we have gone through all of the rules, and at least on

the basis of what has been presented so far, I do not know if you want to set another hearing date or not. A new hearing date would have to be set if you make any substantial changes from the proposed rules and regulations. If the changes are not substantial you would not have to have an additional hearing in which to consider them. And if you desire, you can conclude the hearing at this time and then wait until January 22nd, perhaps for arguments, briefs and comments, at which time you can then consider the additional written material you receive and make your final Order about the rules.

Commissioner Lawrence McCabe: I think that sounds a proper way for us to know where we accept, up until the 22nd of January.

Mr. Harstad: Any written comments received by the Department, arguments, written briefs, up until January 22nd, will be considered by the Commissioner and made a part of the record. If any parties are interested at any time in reviewing what additional documents we have received, you are welcome to do so, because they are part of the record and will be considered by the Commissioner. Let me see, are there any other comments that should be made. I previously stated that they will be submitted to the Attorney General's Office and if anyone has any further questions about the procedure, there, they should contact me or the Commissioner. I think that concludes the legal requirements.

Commissioner Lawrence McCabe: I would like to thank everybody present for the help that they have given us in drafting

these regulations and in participating in this hearing. Everyone that's been at this hearing will be notified if there will be another hearing called because of some significant change that might be considered in these proposed regulations. Therefore, I think that we'll adjourn this hearing at 12 noon. Thank you for your help and your attention and all of your comments, we'll look forward to receiving your written statements.

* * *

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

REPORTER'S CERTIFICATE

I, Jean Amyotte, do hereby certify that I recorded in stenotypy the hearing of the matter herein, taken before Mr. Lawrence E. McCabe, Esquire, Commissioner of Aeronautics, on the 18th day of December, 1973, at St. Paul, Minnesota;

I further certify that thereafter and on this date the foregoing transcript of said hearing was transcribed into typewriting under my direction, which transcript consists of the preceding seventy-seven pages.

I further certify that said transcript of said hearing is true and correct to the best of my ability.

Dated this

/s/ Jean Amyotte
Jean Amyotte