ORDER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

7110.114

4/11/97

SUBJ: **LAND AND HOLD SHORT OPERATIONS (LAHSO)**

1. **PURPOSE.** This order prescribes standards for use by Air Traffic, Flight Standards, and Airports in approving and conducting Land and Hold Short Operations (LAHSO). This order also establishes terms of reference, conditions, and limitations for the application of LAHSO.

2. **DISTRIBUTION**. This order is distributed to the branch level in Washington and regional Air Traffic, Flight Standards and Airport Safety and Standards offices, and the Office of System Safety, and to all air traffic field offices and facilities, Flight Standards District Offices, and Airport District Offices.

3. **EFFECTIVE DATE. July 17, 1997**

4. **BACKGROUND.**

a. LAHSO is an acronym for "Land And Hold Short Operations." These operations include landing and holding short of an intersecting runway, an intersecting taxiway, or some other predetermined point on the runway other than a runway or taxiway. Previously, the acronym "SOIR," Simultaneous Operations on Intersecting Runways, was used exclusively to describe simultaneous operations on two intersecting runways - either two aircraft landing simultaneously or one aircraft landing and another one departing. SOIR has been used as a tool by air traffic controllers to increase airport capacity since 1968. SOIR has grown into a procedure now used at almost 850 intersecting runway combinations at more than 220 airports in the United States, including many general aviation airports (non-14 CFR 139). However, the term LAHSO now incorporates SOIR, which is being expanded to include landing operations to hold short of a taxiway and to hold short of predetermined points on the runway. Just as SOIR is a tool for expediting traffic flow, the additional operations outlined under this LAHSO order are for those airports that need additional tools to decrease delays.

b. This order sets the standards for conducting the following LAHSO combinations:

(1) Land and hold short of an intersecting runway

(2) Land and hold short of an intersecting taxiway

(3) Land and hold short of a predetermined point

(4) Land and hold short of an approach/departure flightpath

5. **DEFINITIONS.** For the purposes of this order, the following definitions are provided:

a. Available Landing Distance (ALD). That portion of a runway available for landing and roll-out for aircraft cleared for LAHSO. This distance is measured from the landing threshold to the hold-short point.

b. Contaminated Runway. For the purposes of this order, a runway is considered contaminated whenever standing water, ice, snow, slush, frost in any form, heavy rubber deposits, or other substances are present. A runway is contaminated with respect to rubber deposits or other friction-degrading substances when the average friction value for any 500-foot segment of the runway within the ALD falls below the recommended minimum friction level and the average friction value in the adjacent 500-foot segments falls below the maintenance planning friction level.

c. Friction Measurement. A measurement of the friction characteristics of the runway pavement surface using continuous self-watering friction measurement equipment in accordance with the specifications, procedures and schedules contained in AC 150/5320-12, Measurement, Construction, and Maintenance of Skid-Resistant Airport Pavement Surfaces.

d. Hold-Short Point. A point on the runway beyond which a landing aircraft with a LAHSO clearance is not authorized to proceed. This point may be located prior to an intersecting runway, taxiway, predetermined point, or approach/departure flight path.

e. Hold-Short Position Marking. The painted runway marking located at the hold-short point on all LAHSO runways.

f. Hold-Short Position Lights. Flashing in-pavement white lights located at specified hold-short points.

g. Hold-Short Position Signs. Red and white holding position signs located alongside the hold-short point.

h. LAHSO. An acronym for "Land and Hold Short Operations." These operations include landing and holding short of an intersecting runway, a taxiway, a predetermined point, or an approach/departure flightpath.

i. LAHSO-Dry. Land and hold short operations on runways that are dry.

j. LAHSO-Wet. Land and hold short operations on runways that are wet, but not contaminated.

k. Maintenance Planning Friction Level. The friction level specified in AC 150/5320-12 which represents the friction value below which the runway pavement surface remains acceptable for any category or class of aircraft operations but which is beginning to show signs of deterioration. This value will vary depending on the particular friction measurement equipment used.

l. Minimum Friction Level. The friction level specified in AC 150/5320-12 that represents the minimum recommended wet pavement surface friction value for any turbojet aircraft engaged in LAHSO. This value will vary with the particular friction measurement equipment used.

m. Runway Conditions.

(1) Dry Runway. No visible moisture.

(2) Wet Runway. Visible moisture on the runway other than those conditions that are defined as contaminants.

n. Tailwind. Any wind more than 90 degrees to the longitudinal axis of the runway. The runway designation shall be used as the basis for determining the longitudinal axis.

6. LAHSO-DRY OPERATIONS.

a. General. The following conditions shall exist at the airport:

(1) Weather conditions must be equal to or greater than a ceiling of 1,000 feet and a visibility of 3 statute miles.

(2) The LAHSO runway ALD must be dry.

(3) The tailwind on the hold short runway shall be calm (less than 3 knots).

(4) When the wind instruments are inoperative, *only* the wind direction may be estimated, e.g., windsock, pilot reports.

b. Runway Equipment and Facilities. Markings and signs shall be installed in accordance with AC 150/5340-1, Standards for Airport Markings, and AC 150/5340-18, Standards for Airport Sign Systems.

(1) Runway hold-short position markings shall be installed and clearly visible at all hold-short points.

(2) Runway hold-short position signs shall be installed at each hold-short point and shall be located on both sides of the runway. During night operations at least one lighted sign at the hold-short point specified in a hold-short clearance shall be functional and lighted.

(3) Runway hold-short position lights shall be installed at hold-short points in accordance with AC 150/5340-29, Land and Hold Short Lighting System, and the following criteria:

(a) Lights are required for all LAHSO associated with a taxiway, a predetermined point or an approach/departure path.

(b) Additionally, lights are required for night LAHSO.

(c) In-pavement Lighting: when two or more lights are out, the entire bar is out-of-service and operations shall be terminated.

c. Air Traffic Requirements and Procedures.

(1) Provide a listing of runways authorized for LAHSO, along with the appropriate "Available Landing Distance" (ALD), for publication in the Airport/Facility Directory (A/FD) and appropriate U.S. Terminal Procedures publications. On a temporary basis, a Notice to Airmen may be issued in lieu of the above.

(2) When there is more than one set of hold-short lights installed on a runway, only one set of hold-short lights shall be illuminated. The hold-short lights that are illuminated shall correspond to the hold-short point in use. Note: If the hold-short point in use does not have hold-short lights, then no hold-short lights on that runway shall be illuminated.

(3) If lights are installed at a runway/runway intersection (e.g., for night LAHSO) and are operational, they shall be used for day LAHSO.

(4) A LAHSO clearance shall not be issued to any aircraft that is not listed in Appendix 1, LAHSO Aircraft Data, of this order or whose landing distance requirement for the runway condition (Wet or Dry) exceeds the ALD as determined by LAHSO Information Management System (LIMS). LAHSO operations involving

helicopters and experimental aircraft can be authorized upon operator request. A LIMS generated list for each LAHSO configuration shall be placed at all affected positions.

(5) If an arriving pilot identifies himself/herself as a "SOLO" student pilot, that pilot shall only be offered a LAHSO clearance for Dry-Day runway/runway.

(6) When LAHSO operations are expected to be utilized, an announcement shall be made on the Automatic Terminal Information System (ATIS), e.g., "Land and hold short operations in effect" or "Expect landing on Runway 22 to hold short of Runway 27."

(7) When LAHSO is conducted at locations not served by an ATIS, or the ATIS is out-of-service, pilots shall be advised on initial contact or as soon as practicable thereafter, to expect a LAHSO clearance.

(8) Aircraft conducting closed traffic operations need only be advised once that "land and hold short operations are in effect." Acknowledgment of current ATIS meets this requirement.

(9) Traffic information shall be exchanged and a readback shall be obtained from the landing aircraft with a LAHSO clearance. An acknowledgment shall be received from the crossing aircraft/vehicle.

(10) Landing or departing aircraft on the same runway beyond the hold-short point is not authorized; aircraft/vehicles shall only be allowed to cross the portion of the runway surface beyond the hold-short point.

(11) LAHSO shall be terminated for any situation or weather condition which, in the judgment of the tower supervisor/controller-in-charge, would adversely affect land and hold short operations.

(12) No more than one hold-short operation shall be conducted on the same runway at any one time.

7. **LAHSO-WET OPERATIONS**. Conducting LAHSO on runways that are wet requires special criteria. The following criteria, rules, and procedures shall be used for LAHSO-Wet **in addition to** those criteria set forth in paragraph 6.

a. Air Traffic Requirements and Procedures.

(1) LAHSO-Wet shall not be conducted when pilots report braking action as less than "good." Pilot Report (PIREP) collection and prompt dissemination shall be encouraged during all LAHSO-Wet.

(2) LAHSO-Wet shall not be conducted if the ALD is reported by the airport operator to be contaminated, or when the airport traffic control tower has been informed that the periodic runway surface friction measurements have not been performed at the required intervals. Any pilot report of suspected contamination *shall* be reported to the airport operator for appropriate action.

(3) LAHSO-Wet shall be resumed only after the airport operator has reported that the condition causing the runway contamination has been corrected. In the event of rubber contamination, operations shall only be resumed after the airport operator has reported that friction measurements have been conducted, and the results indicate that the pavement surface is no longer contaminated.

(4) LAHSO-Wet shall be conducted only when hold-short position lights are operational and "ON."

b. Runway Equipment and Facilities.

(1) To be approved for LAHSO-Wet, runways must be grooved in accordance with AC 150/5320-12, or have porous friction course and have no continuous 1,000-foot length of runway within the ALD with an average friction measurement less than the maintenance planning friction level. (Note: Wire combing and wire tining techniques do not meet the requirement for grooving the runway.) Runways must have pavement surface transverse slopes as specified in AC 150/5300-13. If the runway is subsequently resurfaced, overlaid, or reconstructed, it must be approved again for LAHSO-Wet.

(2) ALD must not be contaminated.

(3) Runway hold-short position lights shall be installed at all hold-short points used for LAHSO-Wet.

8. **ENACTMENT OF WRITTEN AGREEMENTS.** The conduct of LAHSO in accordance with the provisions of this order requires that airport operators agree to undertake specific actions, including the installation and maintenance of required markings, signs, in-pavement lighting, and conducting friction measurement. This not only involves a considerable capital investment, but imposes specific responsibilities and obligations on the airport operator. In order to ensure that LAHSO is conducted safely and in strict accordance with the provisions of this order, and to ensure that airport operators agree and are fully aware of their responsibilities, formal signed Letters of Agreement (LOA) between the airport operator and the air traffic control facility manager are required for the approval and implementation of LAHSO. A sample LOA is attached as Appendix 2 of this order. LOA's shall address, as a minimum, the following:

a. The number and location of approved hold-short positions.

b. Installation and maintenance of required markings, signs, and lighting.

c. Determination of the measured length of the ALD.

d. Coordination procedures for prompt exchange of required information *(e.g., periodic friction measurements, inoperative lights, pilot reports, braking action reports, etc.)*.

e. Procedures for establishing and conducting LAHSO-Wet, including periodic friction measurements.

9. **DEFERRED IMPLEMENTATION DATES.** The following periods have been established to permit airport operators, technical standards specialists, lighting equipment manufacturers, and other affected parties reasonable time to complete and install required marking, lights, and signs, and LOA's as a result of this order. The deferred implementation dates do not apply to land and hold short of an intersecting taxiway, predetermined point and approach/departure flight path that is not currently under a waiver or demonstration.

a. LAHSO-Dry-Day may be conducted at runway/runway intersections on certificated airports without required markings and signs until 1 year after the effective date of this order.

b. LAHSO-Dry-Day may be conducted at runway/runway intersections on non-certificated airports without required markings until 1 year after the effective date of this order and without required signs until 18 months after the effective date of this order.

c. LAHSO-Dry-Night may be conducted at runway/runway intersections without required hold-short position lights until 3 years after the effective date of this order.

d. Land and hold short of an intersecting taxiway at DFW and ORD may be conducted in accordance with existing waivers without required hold-short position lights until 18 months after the effective date of this order.

e. LAHSO-Wet may be conducted at BOS, PIT, ORD, and MIA, in accordance with existing waivers without required hold-short position lights until 18 months after the effective date of this order.

f. Land and hold short of a predetermined point at IAD may be conducted in accordance with existing waivers without required hold-short position lights until 18 months after the effective date of this order.

10. **WAIVER PROCESS.** Any waiver to the provisions of this order must be approved by the Program Director for Air Traffic Operations, ATO-1, with concurrence from the Director, Flight Standards Service, AFS-1. Waivers of more than a 2-year duration may not be issued. Any waiver to the markings, lights and signs require coordination and approval through the Director, Office of Airport Safety and Standards, AAS-1.

11. RESPONSIBILITIES.

a. The Air Traffic Service is responsible for:

(1) Incorporating the applicable standards, procedures, criteria, and requirements contained in this order into appropriate Air Traffic documents.

(2) Publishing appropriate pilot information for LAHSO in the AIM.

(3) Publishing ALD data in both the Airport Facility Directory (A/FD) and in appropriate flight information publications.

b. The Flight Standards Service is responsible for:

(1) Incorporating applicable standards, procedures, criteria, and requirements into appropriate Flight Standards documents.

(2) Initiating international coordination efforts to update International Civil Aviation Organization (ICAO) Annex 6, Operation of Aircraft, to include LAHSO procedures.

(3) Developing appropriate information on flight procedures for incorporation into the AIM.

(4) Providing guidance materials needed to reach and educate both the pilot community and FAA inspectors concerning proper LAHSO procedures.

(5) Approving all air carrier LAHSO training procedures, including any special or unique go-around procedures resulting from a balked or rejected landing.

(6) Requiring the Aviation Safety Program to develop educational programs and other initiatives to reach the general aviation pilot population concerning proper procedures and safety concerns when conducting LAHSO.

(7) Recommending what LAHSO subject matter should be included in appropriate flight training curriculums under Part 141, and in the curriculums for Certificated Flight Instructor (CFI) Revalidation Clinics.

(8) Assure the accuracy of the aircraft data base provided in Appendix 1 and LAHSO Information Management System (LIMS) aircraft database. Provide periodic updates to the aircraft data base as changes occur via electronic means assuring an expeditious exchange of information to preclude any degradation to the safety of this operation.

c. The Office of Airport Safety and Standards is responsible for:

(1) Incorporating applicable standards, procedures, criteria, and requirements contained in this order into the appropriate documents.

(2) Initiating international coordination efforts to update ICAO Annex 14, Visual Aids, and Annex 2, Rules of the Air.

(3) Publishing technical standards, siting specifications, and guidance for the design and installation of all hold-short position markings, signs, and in-pavement lighting as required by this order.

(4) Publishing standards and guidance for maintaining skid-resistant pavements and for publishing standards and guidance for evaluating these pavements with friction measuring equipment.

(5) Developing appropriate information on visual aids for incorporation into the AIM.

(6) Providing instructions to airport certification inspectors for reviewing and inspecting hold-short position markings, signs and lights required for LAHSO at certificated airports.

d. The Office of System Safety is responsible for:

(1) Maintaining/updating development of a risk assessment for LAHSO which considers safety of operations.

(2) Providing analytical support essential to continuing trend analysis of site specific incidents/accidents involving LAHSO.

(3) Coordinating with Air Traffic the publication of supplemental guidance and criteria to define and systematically collect LAHSO operational error reports.

(4) Coordinating with Flight Standards the publication of supplemental guidance and criteria to define and systematically collect LAHSO pilot deviation reports.

Ronald E. Morgan
Director of Air Traffic

Criteria for Air Traffic Controllers to Issue Land and Hold Short Clearances

In order for air traffic to issue a Land and Hold Short Operation (LAHSO) clearance, controllers will need to know the Available Landing Distance (ALD) for each runway, and whether a specific make/model aircraft can land and hold short within that distance. An Air Traffic Controller may not issue a LAHSO clearance to an aircraft if it is not listed in this Appendix, nor when an aircraft's required landing distance is greater than the ALD.

1. The following methodology and information sources were used to develop the civil aircraft landing criteria used in this Appendix:

To determine the basic aircraft landing distance, the "worst case" requirement for a particular aircraft make/model series was used, based upon an analysis of certification data contained in either the FAA Approved Flight Manual (AFM), the Pilot's Operating Handbook (POH), or, if neither references were available, in the aircraft Owner's Manual (OM) or in 14 CFR 121, Appendix C, as appropriate, under the following conditions:

a. Landing at **maximum** certified gross landing weight,

b. Landing with **maximum** landing flaps at the maximum certified gross landing weight (full flaps or no flaps for the maximum certified gross landing weight if only that data is published),

c. At zero wind conditions,

d. A level, paved runway with no runway contamination,

e. International Standard Atmosphere (ISA = 15 degrees C) at sea level.

Note: All approaches are considered to be flown at V-ref, with a 50 feet TCH. Anti-skid is credited if installed. No credit given for trust reverse use. However, "disking" is credited on those turboprops that are approved for use of disking to reduce runway landing roll-out.

f. The above basic aircraft landing distance is multiplied by 1.87 to obtain the necessary available landing distance required for LAHSO under dry conditions.

g. For wet runway operations, the basic landing distance is multiplied by 2.37 to obtain the necessary available landing distance required for LAHSO under wet conditions. (Note: wet runway operations are not permitted when the runway is considered contaminated.)

2. The ALD was determined as follows:

The runway ALD for all LAHSO to intersecting runways, taxiways and other LAHSO points is measured from the effective runway threshold to the hold short point.

Note # 1: For the purposes of this calculation, the effective runway threshold is defined as the point below a 50 feet glide path TCH. (No reduction in ALD, however, would be given for ALD's with actual TCH's less than 50 feet.)

Note # 2: ALD's would be further adjusted for the increase in Runway Safety Area as a function of increases in field elevation.

3. LAHSO will be offered at airports which meet the requirements listed in the FAA Marking and Signage Advisory Circular and the LAHSO Order.

This appendix was compiled and is maintained by:

Flight Standards Service
Technical Programs Division, AFS-400
Federal Aviation Administration
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Washington, DC 20591

Land and Hold Short (LAHSO) Aircraft Data and Required Landing Distances

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
AA1		Yankee A-1B/C	Dry Ops	1,870	1,910	1,940	1,970	2,020	2,080	2,140	2,200	2,270	2,270
			Wet Ops	2,370	2,420	2,460	2,500	2,550	2,630	2,710	2,790	2,880	2,880
AA2		American R/TS-2	Dry Ops	2,060	2,100	2,140	2,170	2,220	2,280	2,350	2,430	2,500	2,500
			Wet Ops	2,610	2,670	2,700	2,750	2,810	2,890	2,980	3,070	3,170	3,170
AA5		Cheetah AA-5/A/B	Dry Ops	920	940	950	970	990	1,020	1,050	1,080	1,120	1,120
			Wet Ops	1,170	1,190	1,210	1,230	1,250	1,290	1,330	1,370	1,410	1,410
AC10		Aero Com. Darter 100/150	Dry Ops	1,110	1,130	1,150	1,160	1,190	1,230	1,260	1,300	1,340	1,340
			Wet Ops	1,400	1,430	1,450	1,480	1,510	1,550	1,600	1,650	1,700	1,700
AC12		Aero Commander 112	Dry Ops	2,380	2,430	2,460	2,500	2,560	2,640	2,720	2,800	2,880	2,880
			Wet Ops	3,010	3,080	3,120	3,170	3,240	3,340	3,440	3,550	3,660	3,660
AC14		Commander 114	Dry Ops	2,250	2,300	2,330	2,360	2,420	2,490	2,570	2,650	2,730	2,730
			Wet Ops	2,850	2,910	2,950	3,000	3,060	3,160	3,250	3,350	3,450	3,450
AC20		Commander 200	Dry Ops	2,150	2,200	2,230	2,270	2,320	2,390	2,460	2,540	2,610	2,610
			Wet Ops	2,730	2,790	2,830	2,870	2,940	3,020	3,120	3,210	3,310	3,310
AC21		Jet Commander 1121-B	Dry Ops	8,050	8,210	8,330	8,460	8,660	8,910	9,190	9,470	9,760	9,760
			Wet Ops	10,190	10,410	10,560	10,720	10,970	11,300	11,640	12,000	12,370	12,370
AC2A		Commander 112/112-A	Dry Ops	2,380	2,430	2,460	2,500	2,560	2,640	2,720	2,800	2,880	2,880
			Wet Ops	3,010	3,080	3,120	3,170	3,240	3,340	3,440	3,550	3,660	3,660
AC2T		Commander 112-C	Dry Ops	2,320	2,370	2,410	2,440	2,500	2,570	2,650	2,730	2,820	2,820
			Wet Ops	2,940	3,000	3,050	3,100	3,170	3,260	3,360	3,460	3,570	3,570
AC50		Commander 500	Dry Ops	3,280	3,350	3,390	3,450	3,530	3,630	3,740	3,860	3,970	3,970
			Wet Ops	4,150	4,240	4,300	4,370	4,470	4,600	4,740	4,890	5,030	5,030
AC52		Commander 520	Dry Ops	1,610	1,650	1,670	1,700	1,730	1,790	1,840	1,900	1,950	1,950
			Wet Ops	2,040	2,090	2,120	2,150	2,200	2,260	2,330	2,400	2,480	2,480
AC56		Commander 560	Dry Ops	2,620	2,680	2,720	2,760	2,820	2,900	2,990	3,090	3,180	3,180
			Wet Ops	3,320	3,390	3,440	3,490	3,570	3,680	3,790	3,910	4,030	4,030
AC60		Grand Commander 680	Dry Ops	3,300	3,360	3,410	3,470	3,550	3,650	3,760	3,880	4,000	4,000
			Wet Ops	4,180	4,260	4,330	4,390	4,490	4,630	4,770	4,910	5,060	5,060
AC68	U4	Super Commander 680-S	Dry Ops	3,930	4,010	4,070	4,140	4,230	4,360	4,490	4,630	4,770	4,770
			Wet Ops	4,980	5,090	5,160	5,240	5,360	5,520	5,690	5,860	6,040	6,040
AC69		Jet Prop Commander	Dry Ops	4,310	4,400	4,460	4,530	4,630	4,770	4,920	5,070	5,220	5,220
			Wet Ops	5,450	5,570	5,650	5,740	5,870	6,040	6,230	6,420	6,620	6,620

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
AC6T		Turbo Commander 690-C	Dry Ops	4,370	4,460	4,530	4,600	4,700	4,840	4,990	5,140	5,300	5,300
			Wet Ops	5,540	5,650	5,740	5,830	5,960	6,140	6,320	6,520	6,720	6,720
AC72		Air-Cruiser	Dry Ops	3,320	3,390	3,440	3,500	3,580	3,680	3,790	3,910	4,030	4,030
			Wet Ops	4,210	4,300	4,360	4,430	4,530	4,670	4,810	4,960	5,110	5,110
AC84		Jet Com. 840/980/1000	Dry Ops	5,000	5,100	5,180	5,260	5,380	5,540	5,710	5,880	6,060	6,060
			Wet Ops	6,330	6,460	6,560	6,660	6,810	7,020	7,230	7,450	7,680	7,680
AC85		Aero Commander 685	Dry Ops	4,400	4,490	4,560	4,630	4,730	4,870	5,020	5,180	5,330	5,330
			Wet Ops	5,570	5,690	5,770	5,860	6,000	6,180	6,360	6,560	6,760	6,760
AC95		Aero Commander 695	Dry Ops	5,050	5,160	5,230	5,320	5,440	5,600	5,770	5,950	6,130	6,130
			Wet Ops	6,400	6,540	6,630	6,740	6,890	7,090	7,310	7,540	7,770	7,770
AJ25		Astra 1125-IW	Dry Ops	5,150	5,250	5,330	5,410	5,540	5,700	5,880	6,060	6,240	6,240
			Wet Ops	6,520	6,660	6,760	6,860	7,020	7,230	7,450	7,680	7,910	7,910
AP1P		Pregnant Guppy	Dry Ops	10,290	10,500	10,660	10,820	11,070	11,400	11,750	12,110	12,480	12,480
			Wet Ops	13,040	13,310	13,510	13,720	14,030	14,450	14,890	15,350	15,820	15,820
AP25		Super Guppy	Dry Ops	10,290	10,500	10,660	10,820	11,070	11,400	11,750	12,110	12,480	12,480
			Wet Ops	13,040	13,310	13,510	13,720	14,030	14,450	14,890	15,350	15,820	15,820
AP3M		Mini Guppy	Dry Ops	8,330	8,500	8,630	8,760	8,960	9,220	9,510	9,800	10,100	10,100
			Wet Ops	10,550	10,770	10,930	11,100	11,350	11,690	12,050	12,420	12,800	12,800
AP45		Super Urbine Guppy	Dry Ops	8,330	8,500	8,630	8,760	8,960	9,220	9,510	9,800	10,100	10,100
			Wet Ops	10,550	10,770	10,930	11,100	11,350	11,690	12,050	12,420	12,800	12,800
AP52		Guppy	Dry Ops	8,330	8,500	8,630	8,760	8,960	9,220	9,510	9,800	10,100	10,100
			Wet Ops	10,550	10,770	10,930	11,100	11,350	11,690	12,050	12,420	12,800	12,800
AR11		11-CC Chief/Super Chief	Dry Ops	1,030	1,050	1,070	1,090	1,110	1,140	1,180	1,210	1,250	1,250
			Wet Ops	1,310	1,330	1,350	1,380	1,410	1,450	1,490	1,540	1,590	1,590
AR15		Aeronca Sedan	Dry Ops	1,130	1,150	1,170	1,180	1,210	1,250	1,290	1,320	1,360	1,360
			Wet Ops	1,430	1,460	1,480	1,500	1,530	1,580	1,630	1,680	1,730	1,730
AR58		Aeronca Champion	Dry Ops	1,030	1,050	1,070	1,090	1,110	1,140	1,180	1,210	1,250	1,250
			Wet Ops	1,310	1,330	1,350	1,380	1,410	1,450	1,490	1,540	1,590	1,590
AT40		Air Tractor 301	Dry Ops	940	960	970	990	1,010	1,040	1,070	1,100	1,140	1,140
			Wet Ops	1,190	1,210	1,230	1,250	1,280	1,320	1,360	1,400	1,440	1,440
AT41		Air Tractor 401	Dry Ops	2,810	2,870	2,910	2,950	3,020	3,110	3,210	3,310	3,410	3,410
			Wet Ops	3,560	3,630	3,690	3,740	3,830	3,940	4,060	4,190	4,320	4,320
AT42		ATR 42-300	Dry Ops	3,810	3,890	3,950	4,010	4,100	4,220	4,350	4,480	4,620	4,620
			Wet Ops	4,830	4,930	5,000	5,080	5,190	5,350	5,510	5,680	5,850	5,850

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
AT72		ATR 72-201	Dry Ops	4,450	4,540	4,610	4,680	4,780	4,920	5,080	5,230	5,390	5,390
			Wet Ops	5,630	5,750	5,840	5,930	6,060	6,240	6,430	6,630	6,830	6,830
B07H		707-300 Series	Dry Ops	7,020	7,160	7,270	7,380	7,550	7,770	8,010	8,260	8,510	8,510
			Wet Ops	8,890	9,080	9,210	9,350	9,570	9,850	10,150	10,460	10,780	10,780
B707	V137	707-100	Dry Ops	7,580	7,740	7,850	7,970	8,150	8,400	8,650	8,920	9,190	9,190
			Wet Ops	9,600	9,800	9,950	10,100	10,330	10,640	10,970	11,300	11,650	11,650
B720		720-B	Dry Ops	6,960	7,110	7,210	7,320	7,490	7,710	7,950	8,190	8,440	8,440
			Wet Ops	8,820	9,010	9,140	9,280	9,490	9,770	10,070	10,380	10,700	10,700
B727		727-100	Dry Ops	5,280	5,390	5,470	5,550	5,680	5,850	6,030	6,210	6,400	6,400
			Wet Ops	6,690	6,830	6,930	7,030	7,200	7,410	7,640	7,870	8,110	8,110
B737	T43	737-200 Series	Dry Ops	5,170	5,270	5,350	5,430	5,560	5,720	5,900	6,080	6,260	6,260
			Wet Ops	6,550	6,680	6,780	6,890	7,040	7,250	7,470	7,700	7,940	7,940
B73F		737-400 Series	Dry Ops	5,670	5,790	5,870	5,960	6,100	6,280	6,470	6,670	6,880	6,880
			Wet Ops	7,190	7,340	7,440	7,560	7,730	7,960	8,200	8,460	8,710	8,710
B73S		737-300 Series	Dry Ops	5,170	5,270	5,350	5,430	5,560	5,720	5,900	6,080	6,260	6,260
			Wet Ops	6,550	6,680	6,780	6,890	7,040	7,250	7,470	7,700	7,940	7,940
B747	E4	747-200 Series	Dry Ops	8,140	8,310	8,430	8,560	8,760	9,020	9,290	9,580	9,870	9,870
			Wet Ops	10,310	10,530	10,680	10,850	11,100	11,430	11,780	12,140	12,510	12,510
B74F		747-400 Series	Dry Ops	8,190	8,370	8,490	8,620	8,820	9,080	9,360	9,640	9,940	9,940
			Wet Ops	10,380	10,600	10,760	10,920	11,170	11,510	11,860	12,220	12,600	12,600
B74S		747-SUD (747-100)	Dry Ops	8,140	8,310	8,430	8,560	8,760	9,020	9,290	9,580	9,870	9,870
			Wet Ops	10,310	10,530	10,680	10,850	11,100	11,430	11,780	12,140	12,510	12,510
B75		Stearman	Dry Ops	850	860	880	890	910	940	960	990	1,020	1,020
			Wet Ops	1,070	1,090	1,110	1,130	1,150	1,190	1,220	1,260	1,300	1,300
B757		757-200	Dry Ops	5,450	5,560	5,640	5,730	5,860	6,030	6,220	6,410	6,600	6,600
			Wet Ops	6,900	7,050	7,150	7,260	7,420	7,650	7,880	8,120	8,370	8,370
B767		767-300-ER	Dry Ops	5,840	5,960	6,050	6,140	6,280	6,470	6,670	6,870	7,080	7,080
			Wet Ops	7,400	7,550	7,660	7,780	7,960	8,200	8,450	8,710	8,970	8,970
B777		Boeing 777-100	Dry Ops	5,700	5,820	5,900	5,990	6,130	6,310	6,510	6,710	6,910	6,910
			Wet Ops	7,220	7,370	7,480	7,600	7,770	8,000	8,250	8,500	8,760	8,760
BA11		BAC-111 - 400, -414	Dry Ops	6,810	6,950	7,060	7,160	7,330	7,550	7,780	8,020	8,260	8,260
			Wet Ops	8,630	8,810	8,940	9,080	9,290	9,560	9,860	10,160	10,470	10,470
BA31		BAe Jetstream 31	Dry Ops	4,490	4,590	4,650	4,730	4,830	4,980	5,130	5,290	5,450	5,450
			Wet Ops	5,690	5,810	5,900	5,990	6,120	6,310	6,500	6,700	6,900	6,900

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
BA41		BAe Jetstream 41	Dry Ops	7,020	7,160	7,270	7,380	7,550	7,770	8,010	8,260	8,510	8,510
			Wet Ops	8,890	9,080	9,210	9,350	9,570	9,850	10,150	10,460	10,780	10,780
BA46		BAe 146-300	Dry Ops	4,440	4,530	4,600	4,670	4,770	4,910	5,070	5,220	5,380	5,380
			Wet Ops	5,620	5,740	5,820	5,910	6,050	6,230	6,420	6,620	6,820	6,820
BAE		BAe 125-1000A	Dry Ops	5,330	5,450	5,530	5,610	5,740	5,910	6,090	6,280	6,470	6,470
			Wet Ops	6,760	6,900	7,000	7,110	7,270	7,490	7,720	7,950	8,200	8,200
BATP		Advanced Turboprop	Dry Ops	2,490	2,540	2,580	2,620	2,680	2,760	2,840	2,930	3,020	3,020
			Wet Ops	3,160	3,220	3,270	3,320	3,400	3,500	3,600	3,710	3,830	3,830
BE02		Beech 1900-D	Dry Ops	5,180	5,290	5,370	5,450	5,580	5,740	5,920	6,100	6,290	6,290
			Wet Ops	6,570	6,710	6,810	6,910	7,070	7,280	7,500	7,730	7,970	7,970
BE10	U21F	King Air 100, 100-A, A100	Dry Ops	5,650	5,770	5,850	5,950	6,080	6,260	6,450	6,650	6,850	6,850
			Wet Ops	7,160	7,310	7,420	7,530	7,710	7,930	8,180	8,430	8,690	8,690
BE17		Stagger Wing 17	Dry Ops	2,720	2,770	2,810	2,860	2,920	3,010	3,100	3,200	3,290	3,290
			Wet Ops	3,440	3,510	3,560	3,620	3,700	3,810	3,930	4,050	4,170	4,170
BE18	C45	Twin Beech 18	Dry Ops	5,700	5,820	5,900	5,990	6,130	6,310	6,510	6,710	6,910	6,910
			Wet Ops	7,220	7,370	7,480	7,600	7,770	8,000	8,250	8,500	8,760	8,760
BE19		Beech 19 Sport	Dry Ops	3,170	3,240	3,280	3,330	3,410	3,510	3,620	3,730	3,840	3,840
			Wet Ops	4,020	4,100	4,160	4,230	4,320	4,450	4,590	4,730	4,870	4,870
BE1B		King Air 100-B	Dry Ops	5,990	6,110	6,200	6,300	6,440	6,630	6,840	7,050	7,260	7,260
			Wet Ops	7,590	7,750	7,860	7,980	8,160	8,410	8,660	8,930	9,200	9,200
BE20	C12	Super King Air Huron 200/	Dry Ops	5,610	5,730	5,820	5,910	6,040	6,220	6,410	6,610	6,810	6,810
			Wet Ops	7,110	7,260	7,370	7,480	7,650	7,880	8,120	8,370	8,630	8,630
BE23		Sundowner 23 Muskuteer	Dry Ops	2,780	2,840	2,880	2,920	2,990	3,080	3,170	3,270	3,370	3,370
			Wet Ops	3,520	3,590	3,650	3,700	3,790	3,900	4,020	4,140	4,270	4,270
BE24		Sierra 24	Dry Ops	2,810	2,870	2,910	2,950	3,020	3,110	3,210	3,310	3,410	3,410
			Wet Ops	3,560	3,630	3,690	3,740	3,830	3,940	4,060	4,190	4,320	4,320
BE2H		Super King Air 200-HDC	Dry Ops	4,900	5,010	5,080	5,160	5,280	5,430	5,600	5,770	5,950	5,950
			Wet Ops	6,210	6,340	6,440	6,540	6,690	6,880	7,100	7,310	7,540	7,540
BE30		Super King Air 300	Dry Ops	5,390	5,500	5,580	5,670	5,800	5,970	6,150	6,340	6,540	6,540
			Wet Ops	6,830	6,970	7,080	7,180	7,350	7,570	7,800	8,040	8,280	8,280
BE33		Bonanza 33	Dry Ops	3,370	3,440	3,490	3,550	3,630	3,730	3,850	3,970	4,090	4,090
			Wet Ops	4,270	4,360	4,420	4,490	4,590	4,730	4,880	5,030	5,180	5,180
BE35		Bonanza 35	Dry Ops	3,180	3,250	3,300	3,350	3,420	3,530	3,630	3,750	3,860	3,860
			Wet Ops	4,030	4,120	4,180	4,240	4,340	4,470	4,610	4,750	4,890	4,890

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
BE36		Bonanza 36	Dry Ops	2,790	2,850	2,890	2,940	3,000	3,090	3,190	3,280	3,380	3,380
			Wet Ops	3,540	3,610	3,660	3,720	3,800	3,920	4,040	4,160	4,290	4,290
BE3B		Super King Air 350	Dry Ops	4,310	4,400	4,460	4,530	4,630	4,770	4,920	5,070	5,220	5,220
			Wet Ops	5,450	5,570	5,650	5,740	5,870	6,040	6,230	6,420	6,620	6,620
BE3L		Super King Air 300LW	Dry Ops	4,490	4,590	4,650	4,730	4,830	4,980	5,130	5,290	5,450	5,450
			Wet Ops	5,690	5,810	5,900	5,990	6,120	6,310	6,500	6,700	6,900	6,900
BE40		Beech Jet 400, 400-A	Dry Ops	6,550	6,690	6,780	6,890	7,050	7,260	7,480	7,710	7,940	7,940
			Wet Ops	8,300	8,470	8,600	8,730	8,930	9,190	9,480	9,770	10,070	10,070
BE45	T34	Mentor	Dry Ops	2,170	2,220	2,250	2,290	2,340	2,410	2,480	2,560	2,640	2,640
			Wet Ops	2,750	2,810	2,850	2,900	2,960	3,050	3,140	3,240	3,340	3,340
BE50		Twin Bonanza 50	Dry Ops	3,440	3,520	3,570	3,620	3,710	3,820	3,930	4,050	4,180	4,180
			Wet Ops	4,360	4,460	4,520	4,590	4,700	4,840	4,980	5,140	5,290	5,290
BE55	T42	Baron 55/Chochise	Dry Ops	3,740	3,820	3,880	3,940	4,030	4,150	4,280	4,410	4,540	4,540
			Wet Ops	4,740	4,840	4,910	4,990	5,100	5,260	5,420	5,580	5,750	5,750
BE58		Baron 58, 58A	Dry Ops	4,680	4,780	4,850	4,920	5,030	5,180	5,340	5,510	5,670	5,670
			Wet Ops	5,930	6,050	6,140	6,240	6,380	6,570	6,770	6,980	7,190	7,190
BE60		Duke 60	Dry Ops	5,800	5,920	6,010	6,100	6,240	6,430	6,620	6,830	7,040	7,040
			Wet Ops	7,350	7,510	7,620	7,730	7,910	8,140	8,390	8,650	8,920	8,920
BE65		Queen Air 65-B80	Dry Ops	4,160	4,250	4,310	4,380	4,480	4,610	4,760	4,900	5,050	5,050
			Wet Ops	5,280	5,390	5,470	5,550	5,680	5,850	6,030	6,210	6,400	6,400
BE76		Duchess 76	Dry Ops	3,650	3,730	3,780	3,840	3,930	4,040	4,170	4,300	4,430	4,430
			Wet Ops	4,630	4,720	4,790	4,870	4,980	5,120	5,280	5,440	5,610	5,610
BE77		Skipper 77	Dry Ops	2,250	2,300	2,330	2,360	2,420	2,490	2,570	2,650	2,730	2,730
			Wet Ops	2,850	2,910	2,950	3,000	3,060	3,160	3,250	3,350	3,450	3,450
BE80		Queen Air 80	Dry Ops	4,210	4,300	4,360	4,430	4,530	4,670	4,810	4,960	5,110	5,110
			Wet Ops	5,340	5,450	5,530	5,610	5,740	5,910	6,090	6,280	6,470	6,470
BE8S		Super H-18	Dry Ops	5,050	5,160	5,230	5,320	5,440	5,600	5,770	5,950	6,130	6,130
			Wet Ops	6,400	6,540	6,630	6,740	6,890	7,090	7,310	7,540	7,770	7,770
BE90		Beech King Air E-90	Dry Ops	4,120	4,200	4,270	4,330	4,430	4,560	4,700	4,850	4,990	4,990
			Wet Ops	5,220	5,330	5,410	5,490	5,610	5,780	5,960	6,140	6,330	6,330
BE95		Travelair 95	Dry Ops	4,160	4,240	4,300	4,370	4,470	4,600	4,740	4,890	5,040	5,040
			Wet Ops	5,270	5,380	5,450	5,540	5,670	5,830	6,010	6,200	6,390	6,390
BE99		Airliner 99C	Dry Ops	5,890	6,020	6,110	6,200	6,340	6,530	6,730	6,940	7,150	7,150
			Wet Ops	7,470	7,630	7,740	7,860	8,040	8,280	8,530	8,790	9,060	9,060

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
BE9F		Beech F-90 LA2 LA-204	Dry Ops	5,520	5,640	5,720	5,810	5,940	6,120	6,300	6,500	6,700	6,700
			Wet Ops	7,000	7,140	7,250	7,360	7,530	7,750	7,990	8,230	8,480	8,480
BEST		Starship Model 2000	Dry Ops	4,870	4,970	5,040	5,120	5,240	5,390	5,560	5,730	5,900	5,900
			Wet Ops	6,170	6,300	6,390	6,490	6,630	6,830	7,040	7,260	7,480	7,480
BL14		Cruisair Sr.Cruismaster14-1	Dry Ops	1,970	2,010	2,040	2,070	2,120	2,180	2,250	2,320	2,390	2,390
			Wet Ops	2,490	2,540	2,580	2,620	2,680	2,760	2,850	2,930	3,020	3,020
BL26		Model 17-30A Super Viking	Dry Ops	1,030	1,050	1,070	1,090	1,110	1,140	1,180	1,210	1,250	1,250
			Wet Ops	1,310	1,330	1,350	1,380	1,410	1,450	1,490	1,540	1,590	1,590
BL28		Model 7-GCBC Scout	Dry Ops	1,290	1,320	1,340	1,360	1,390	1,430	1,480	1,520	1,570	1,570
			Wet Ops	1,640	1,670	1,700	1,720	1,760	1,820	1,870	1,930	1,990	1,990
BL30		Decathlon 8-KCAB	Dry Ops	1,290	1,320	1,340	1,360	1,390	1,430	1,480	1,520	1,570	1,570
			Wet Ops	1,640	1,670	1,700	1,720	1,760	1,820	1,870	1,930	1,990	1,990
BL31		Bellanca Turbo Viking	Dry Ops	1,030	1,050	1,070	1,090	1,110	1,140	1,180	1,210	1,250	1,250
			Wet Ops	1,310	1,330	1,350	1,380	1,410	1,450	1,490	1,540	1,590	1,590
BN2		BN-2A/B Islander	Dry Ops	1,840	1,880	1,900	1,930	1,980	2,030	2,100	2,160	2,230	2,230
			Wet Ops	2,330	2,380	2,410	2,450	2,500	2,580	2,660	2,740	2,820	2,820
BN2T		BN-2T Turbine Islander	Dry Ops	2,080	2,120	2,150	2,190	2,240	2,300	2,370	2,450	2,520	2,520
			Wet Ops	2,630	2,690	2,730	2,770	2,830	2,920	3,010	3,100	3,200	3,200
BN3		BN-2A Mark III Trislander	Dry Ops	2,720	2,770	2,810	2,860	2,920	3,010	3,100	3,200	3,290	3,290
			Wet Ops	3,440	3,510	3,560	3,620	3,700	3,810	3,930	4,050	4,170	4,170
BT10		B.121 Pup Series (UK)	Dry Ops	2,660	2,720	2,750	2,800	2,860	2,950	3,040	3,130	3,230	3,230
			Wet Ops	3,370	3,440	3,490	3,540	3,630	3,730	3,850	3,970	4,090	4,090
C120		Cessna 120	Dry Ops	1,500	1,530	1,550	1,580	1,610	1,660	1,710	1,760	1,820	1,820
			Wet Ops	1,900	1,940	1,970	2,000	2,040	2,100	2,170	2,240	2,300	2,300
C14		Cessna 140	Dry Ops	2,870	2,930	2,970	3,010	3,080	3,170	3,270	3,370	3,470	3,470
			Wet Ops	3,630	3,710	3,760	3,820	3,910	4,020	4,150	4,270	4,400	4,400
C150		Cessna 150	Dry Ops	2,010	2,060	2,090	2,120	2,170	2,230	2,300	2,370	2,440	2,440
			Wet Ops	2,550	2,610	2,640	2,680	2,750	2,830	2,910	3,000	3,090	3,090
C152		Cessna 152	Dry Ops	2,250	2,300	2,330	2,360	2,420	2,490	2,570	2,650	2,730	2,730
			Wet Ops	2,850	2,910	2,950	3,000	3,060	3,160	3,250	3,350	3,450	3,450
C170		Cessna 170	Dry Ops	3,460	3,530	3,580	3,640	3,720	3,830	3,950	4,070	4,190	4,190
			Wet Ops	4,380	4,470	4,540	4,610	4,710	4,850	5,000	5,160	5,310	5,310
C172	T41	Skyhawk Cutlass/Mescalero	Dry Ops	2,340	2,390	2,430	2,460	2,520	2,590	2,670	2,760	2,840	2,840
			Wet Ops	2,970	3,030	3,070	3,120	3,190	3,290	3,390	3,490	3,600	3,600

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
C175		Skylark 175	Dry Ops	2,550	2,600	2,640	2,680	2,740	2,820	2,910	3,000	3,090	3,090
			Wet Ops	3,230	3,290	3,340	3,390	3,470	3,580	3,680	3,800	3,910	3,910
C177		Cardinal 177	Dry Ops	2,530	2,580	2,620	2,660	2,720	2,800	2,890	2,980	3,070	3,070
			Wet Ops	3,200	3,270	3,320	3,370	3,450	3,550	3,660	3,770	3,880	3,880
C180		Skywagon 180	Dry Ops	2,560	2,610	2,650	2,690	2,750	2,830	2,920	3,010	3,100	3,100
			Wet Ops	3,240	3,310	3,360	3,410	3,480	3,590	3,700	3,810	3,930	3,930
C182		Skylane 182/RG Turbo/RG	Dry Ops	2,520	2,570	2,610	2,650	2,710	2,790	2,880	2,960	3,050	3,050
			Wet Ops	3,190	3,260	3,310	3,360	3,430	3,540	3,640	3,760	3,870	3,870
C185		Skywagon 185	Dry Ops	2,620	2,680	2,720	2,760	2,820	2,900	2,990	3,090	3,180	3,180
			Wet Ops	3,320	3,390	3,440	3,490	3,570	3,680	3,790	3,910	4,030	4,030
C188		AGWagon/Truck/Husky188	Dry Ops	1,110	1,130	1,150	1,160	1,190	1,230	1,260	1,300	1,340	1,340
			Wet Ops	1,400	1,430	1,450	1,480	1,510	1,550	1,600	1,650	1,700	1,700
C190		Cessna 190	Dry Ops	2,800	2,860	2,900	2,950	3,010	3,100	3,200	3,290	3,400	3,400
			Wet Ops	3,550	3,620	3,670	3,730	3,820	3,930	4,050	4,170	4,300	4,300
C195		Cessna 95	Dry Ops	4,100	4,190	4,250	4,310	4,410	4,540	4,680	4,820	4,970	4,970
			Wet Ops	5,190	5,300	5,380	5,460	5,590	5,750	5,930	6,110	6,300	6,300
C205		Super Skywagon/Skylane	Dry Ops	2,830	2,890	2,930	2,970	3,040	3,130	3,230	3,330	3,430	3,430
			Wet Ops	3,580	3,660	3,710	3,770	3,850	3,970	4,090	4,220	4,340	4,340
C206		Stationair 6 /Turbo 6	Dry Ops	2,610	2,670	2,710	2,750	2,810	2,890	2,980	3,070	3,170	3,170
			Wet Ops	3,310	3,380	3,430	3,480	3,560	3,670	3,780	3,900	4,010	4,010
C207		Stationair / Turbo 7/8	Dry Ops	2,810	2,870	2,910	2,950	3,020	3,110	3,210	3,310	3,410	3,410
			Wet Ops	3,560	3,630	3,690	3,740	3,830	3,940	4,060	4,190	4,320	4,320
C208		Caravan I 208-A	Dry Ops	3,000	3,060	3,100	3,150	3,220	3,320	3,420	3,530	3,630	3,630
			Wet Ops	3,800	3,880	3,930	3,990	4,080	4,210	4,330	4,470	4,600	4,600
C210		Centurion / II	Dry Ops	2,810	2,870	2,910	2,950	3,020	3,110	3,210	3,310	3,410	3,410
			Wet Ops	3,560	3,630	3,690	3,740	3,830	3,940	4,060	4,190	4,320	4,320
C303		Crusader 303	Dry Ops	2,720	2,770	2,810	2,860	2,920	3,010	3,100	3,200	3,290	3,290
			Wet Ops	3,440	3,510	3,560	3,620	3,700	3,810	3,930	4,050	4,170	4,170
C305	O1	Bird Dog 305 / 321	Dry Ops	1,790	1,830	1,850	1,880	1,930	1,980	2,040	2,110	2,170	2,170
			Wet Ops	2,270	2,310	2,350	2,390	2,440	2,510	2,590	2,670	2,750	2,750
C310	U3	Cessna 310	Dry Ops	3,360	3,430	3,480	3,540	3,620	3,720	3,840	3,950	4,080	4,080
			Wet Ops	4,260	4,350	4,410	4,480	4,580	4,720	4,860	5,010	5,160	5,160
C320		Skynight 320	Dry Ops	3,850	3,930	3,990	4,050	4,140	4,260	4,390	4,530	4,670	4,670
			Wet Ops	4,880	4,980	5,050	5,130	5,250	5,400	5,570	5,740	5,910	5,910

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
C335		Cessna 335	Dry Ops	3,460	3,540	3,590	3,640	3,730	3,840	3,950	4,080	4,200	4,200
			Wet Ops	4,390	4,480	4,550	4,620	4,720	4,860	5,010	5,160	5,320	5,320
C336		Skymaster 336	Dry Ops	2,610	2,670	2,710	2,750	2,810	2,890	2,980	3,070	3,170	3,170
			Wet Ops	3,310	3,380	3,430	3,480	3,560	3,670	3,780	3,900	4,010	4,010
C337	O2	Super Skymaster 337	Dry Ops	3,090	3,150	3,200	3,250	3,320	3,420	3,530	3,640	3,750	3,750
			Wet Ops	3,910	4,000	4,060	4,120	4,210	4,340	4,470	4,610	4,750	4,750
C340		Cessna 340-A	Dry Ops	3,460	3,540	3,590	3,640	3,730	3,840	3,950	4,080	4,200	4,200
			Wet Ops	4,390	4,480	4,550	4,620	4,720	4,860	5,010	5,160	5,320	5,320
C401		Cessna 401	Dry Ops	3,300	3,360	3,410	3,470	3,550	3,650	3,760	3,880	4,000	4,000
			Wet Ops	4,180	4,260	4,330	4,390	4,490	4,630	4,770	4,910	5,060	5,060
C402		Cessna 402-C	Dry Ops	4,660	4,760	4,830	4,900	5,010	5,160	5,320	5,480	5,650	5,650
			Wet Ops	5,910	6,030	6,120	6,210	6,350	6,540	6,740	6,950	7,160	7,160
C404		CE-404 Titan	Dry Ops	4,000	4,080	4,140	4,200	4,300	4,430	4,560	4,700	4,850	4,850
			Wet Ops	5,060	5,170	5,250	5,330	5,450	5,610	5,780	5,960	6,140	6,140
C406		Cessna Caravan II 406	Dry Ops	4,650	4,750	4,820	4,890	5,000	5,150	5,310	5,470	5,640	5,640
			Wet Ops	5,890	6,020	6,110	6,200	6,340	6,530	6,730	6,940	7,150	7,150
C411		CE-411 Cessna	Dry Ops	3,370	3,440	3,490	3,550	3,630	3,730	3,850	3,970	4,090	4,090
			Wet Ops	4,270	4,360	4,420	4,490	4,590	4,730	4,880	5,030	5,180	5,180
C414		CE-414 Chancellor	Dry Ops	4,490	4,590	4,650	4,730	4,830	4,980	5,130	5,290	5,450	5,450
			Wet Ops	5,690	5,810	5,900	5,990	6,120	6,310	6,500	6,700	6,900	6,900
C421		CE-421 Golden Eagle	Dry Ops	4,310	4,400	4,460	4,530	4,630	4,770	4,920	5,070	5,220	5,220
			Wet Ops	5,450	5,570	5,650	5,740	5,870	6,040	6,230	6,420	6,620	6,620
C425		Corsair/Conquest - 425	Dry Ops	4,020	4,110	4,170	4,230	4,330	4,460	4,600	4,740	4,880	4,880
			Wet Ops	5,100	5,210	5,280	5,360	5,490	5,650	5,820	6,000	6,180	6,180
C434		Cessna Turbo Titan 434	Dry Ops	3,740	3,820	3,880	3,940	4,030	4,150	4,280	4,410	4,540	4,540
			Wet Ops	4,740	4,840	4,910	4,990	5,100	5,260	5,420	5,580	5,750	5,750
C441		Conquest / II-441	Dry Ops	4,540	4,630	4,700	4,770	4,880	5,030	5,180	5,340	5,500	5,500
			Wet Ops	5,750	5,870	5,960	6,050	6,190	6,370	6,570	6,770	6,980	6,980
C500		Citation I	Dry Ops	4,240	4,330	4,390	4,460	4,560	4,700	4,840	4,990	5,140	5,140
			Wet Ops	5,370	5,480	5,570	5,650	5,780	5,950	6,130	6,320	6,520	6,520
C501		Citation I-SP	Dry Ops	4,020	4,100	4,160	4,220	4,320	4,450	4,580	4,730	4,870	4,870
			Wet Ops	5,090	5,190	5,270	5,350	5,470	5,640	5,810	5,990	6,170	6,170
C550		Citation II/-S2	Dry Ops	4,250	4,340	4,400	4,470	4,570	4,710	4,850	5,000	5,150	5,150
			Wet Ops	5,380	5,500	5,580	5,660	5,790	5,960	6,150	6,340	6,530	6,530

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
C551		Citation II-SP	Dry Ops	4,160	4,240	4,300	4,370	4,470	4,600	4,740	4,890	5,040	5,040
			Wet Ops	5,270	5,380	5,450	5,540	5,670	5,830	6,010	6,200	6,390	6,390
C560		Citation V	Dry Ops	5,630	5,750	5,840	5,930	6,060	6,240	6,430	6,630	6,830	6,830
			Wet Ops	7,140	7,290	7,390	7,510	7,680	7,910	8,150	8,400	8,660	8,660
C650		Citation III	Dry Ops	6,440	6,570	6,670	6,770	6,930	7,130	7,350	7,580	7,810	7,810
			Wet Ops	8,160	8,330	8,450	8,580	8,780	9,040	9,310	9,600	9,890	9,890
CA21		C-212 -300 Aviocar	Dry Ops	5,310	5,430	5,510	5,590	5,720	5,890	6,070	6,250	6,450	6,450
			Wet Ops	6,730	6,880	6,980	7,080	7,250	7,460	7,690	7,930	8,170	8,170
CH10		Champion Citabria	Dry Ops	850	860	880	890	910	940	960	990	1,020	1,020
			Wet Ops	1,070	1,090	1,110	1,130	1,150	1,190	1,220	1,260	1,300	1,300
CH40		Champion Lancer 402	Dry Ops	1,310	1,340	1,360	1,380	1,410	1,450	1,500	1,540	1,590	1,590
			Wet Ops	1,660	1,700	1,720	1,750	1,790	1,840	1,900	1,960	2,020	2,020
CH5		Champion	Dry Ops	940	960	970	990	1,010	1,040	1,070	1,100	1,140	1,140
			Wet Ops	1,190	1,210	1,230	1,250	1,280	1,320	1,360	1,400	1,440	1,440
CH8		Champion Challenger	Dry Ops	1,090	1,110	1,130	1,140	1,170	1,210	1,240	1,280	1,320	1,320
			Wet Ops	1,380	1,410	1,430	1,450	1,480	1,530	1,570	1,620	1,670	1,670
CH9		Champion Citabria 7-ECA	Dry Ops	1,420	1,450	1,470	1,490	1,520	1,570	1,620	1,670	1,720	1,720
			Wet Ops	1,790	1,830	1,860	1,890	1,930	1,990	2,050	2,110	2,170	2,170
CL60		CL600 / 610 Challenger	Dry Ops	6,640	6,780	6,880	6,990	7,150	7,360	7,590	7,820	8,060	8,060
			Wet Ops	8,420	8,590	8,720	8,860	9,060	9,330	9,610	9,910	10,210	10,210
CL65		Regional Jet CL-65	Dry Ops	5,500	5,620	5,700	5,790	5,920	6,100	6,280	6,470	6,670	6,670
			Wet Ops	6,970	7,120	7,220	7,330	7,500	7,720	7,960	8,210	8,460	8,460
CM48		480 Twin Navion/CTN/A-D	Dry Ops	1,140	1,170	1,190	1,200	1,230	1,270	1,310	1,350	1,390	1,390
			Wet Ops	1,450	1,480	1,500	1,520	1,560	1,610	1,650	1,710	1,760	1,760
CONC		Concorde	Dry Ops	12,890	13,160	13,350	13,560	13,870	14,280	14,720	15,170	15,630	15,630
			Wet Ops	16,330	16,680	16,920	17,180	17,570	18,100	18,650	19,220	19,810	19,810
CP10		Cap 10-B	Dry Ops	3,680	3,760	3,820	3,880	3,960	4,080	4,210	4,340	4,470	4,470
			Wet Ops	4,670	4,770	4,840	4,910	5,020	5,170	5,330	5,490	5,660	5,660
CP20		Cap 20-C-200	Dry Ops	3,500	3,570	3,630	3,680	3,770	3,880	4,000	4,120	4,250	4,250
			Wet Ops	4,440	4,530	4,600	4,670	4,770	4,910	5,070	5,220	5,380	5,380
CV14	PBY5	Canso/Catalina***	Dry Ops	5,430	5,540	5,620	5,710	5,840	6,010	6,200	6,390	6,580	6,580
			Wet Ops	6,880	7,020	7,120	7,230	7,400	7,620	7,850	8,090	8,340	8,340
CV24		Convair 240 Liner	Dry Ops	4,420	4,510	4,580	4,650	4,750	4,890	5,040	5,200	5,360	5,360
			Wet Ops	5,600	5,710	5,800	5,890	6,020	6,200	6,390	6,590	6,790	6,790

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
CV34	C131	340 Liner Samaritan	Dry Ops	9,070	9,260	9,400	9,550	9,760	10,050	10,360	10,680	11,010	11,010
			Wet Ops	11,500	11,740	11,910	12,100	12,370	12,740	13,130	13,530	13,950	13,950
CV44		Convair 440	Dry Ops	4,550	4,640	4,710	4,780	4,890	5,040	5,190	5,350	5,520	5,520
			Wet Ops	5,760	5,880	5,970	6,060	6,200	6,390	6,580	6,780	6,990	6,990
CV58		Convair 580	Dry Ops	4,490	4,590	4,650	4,730	4,830	4,980	5,130	5,290	5,450	5,450
			Wet Ops	5,690	5,810	5,900	5,990	6,120	6,310	6,500	6,700	6,900	6,900
CV60		Convair 600	Dry Ops	5,520	5,640	5,720	5,810	5,940	6,120	6,300	6,500	6,700	6,700
			Wet Ops	7,000	7,140	7,250	7,360	7,530	7,750	7,990	8,230	8,480	8,480
CV64		Convair 640	Dry Ops	5,890	6,020	6,110	6,200	6,340	6,530	6,730	6,940	7,150	7,150
			Wet Ops	7,470	7,630	7,740	7,860	8,040	8,280	8,530	8,790	9,060	9,060
CV88		Convair 880	Dry Ops	7,950	8,120	8,240	8,370	8,560	8,810	9,080	9,360	9,650	9,650
			Wet Ops	10,080	10,290	10,440	10,600	10,840	11,170	11,510	11,860	12,220	12,220
CV99		Convair 990	Dry Ops	7,560	7,720	7,830	7,960	8,140	8,380	8,640	8,900	9,170	9,170
			Wet Ops	9,580	9,780	9,930	10,080	10,310	10,620	10,940	11,280	11,620	11,620
D328		Dornier 328	Dry Ops	4,630	4,730	4,800	4,870	4,980	5,130	5,290	5,450	5,620	5,620
			Wet Ops	5,870	5,990	6,080	6,170	6,320	6,500	6,700	6,910	7,120	7,120
DA01		Mercure 100-C	Dry Ops	5,880	6,000	6,090	6,190	6,330	6,520	6,720	6,920	7,130	7,130
			Wet Ops	7,450	7,610	7,720	7,840	8,020	8,260	8,510	8,770	9,040	9,040
DA02		Falcon 20-M, F20, D-5, E-5	Dry Ops	5,990	6,110	6,200	6,300	6,440	6,630	6,840	7,050	7,260	7,260
			Wet Ops	7,590	7,750	7,860	7,980	8,160	8,410	8,660	8,930	9,200	9,200
DA05		Burguet- Falcon DA - 50	Dry Ops	6,320	6,460	6,550	6,650	6,800	7,010	7,220	7,440	7,670	7,670
			Wet Ops	8,010	8,180	8,300	8,430	8,620	8,880	9,150	9,430	9,720	9,720
DA10		Falcon DA-10	Dry Ops	4,590	4,680	4,750	4,820	4,930	5,080	5,240	5,400	5,560	5,560
			Wet Ops	5,810	5,930	6,020	6,110	6,250	6,440	6,640	6,840	7,050	7,050
DA20		Falcon 20 FJF - C thru F	Dry Ops	4,870	4,970	5,040	5,120	5,240	5,390	5,560	5,730	5,900	5,900
			Wet Ops	6,170	6,300	6,390	6,490	6,630	6,830	7,040	7,260	7,480	7,480
DA21		Mystere Falcon 200, Falcon	Dry Ops	0	0	0	0	0	0	0	0	0	0
			Wet Ops	0	0	0	0	0	0	0	0	0	0
DA90		Mystere Falcon 900	Dry Ops	6,550	6,690	6,780	6,890	7,050	7,260	7,480	7,710	7,940	7,940
			Wet Ops	8,300	8,470	8,600	8,730	8,930	9,190	9,480	9,770	10,070	10,070
DC10	KC10	DC-10-30F	Dry Ops	7,140	7,290	7,400	7,510	7,680	7,910	8,150	8,400	8,660	8,660
			Wet Ops	9,050	9,240	9,370	9,520	9,740	10,020	10,330	10,650	10,970	10,970
DC3	C47	Skytrain	Dry Ops	4,070	4,150	4,210	4,280	4,370	4,500	4,640	4,780	4,930	4,930
			Wet Ops	5,150	5,260	5,340	5,420	5,540	5,710	5,880	6,060	6,250	6,250

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
DC3S	C117	Super DC-3-TP67 (Turbo)	Dry Ops	6,620	6,760	6,860	6,970	7,130	7,340	7,560	7,800	8,030	8,030
			Wet Ops	8,390	8,570	8,700	8,830	9,030	9,300	9,590	9,880	10,180	10,180
DC4	C54	Skymaster DC-4	Dry Ops	5,150	5,250	5,330	5,410	5,540	5,700	5,880	6,060	6,240	6,240
			Wet Ops	6,520	6,660	6,760	6,860	7,020	7,230	7,450	7,680	7,910	7,910
DC6	C118	DC-6/B Liftmaster	Dry Ops	5,570	5,680	5,770	5,860	5,990	6,170	6,360	6,550	6,750	6,750
			Wet Ops	7,050	7,200	7,310	7,420	7,590	7,820	8,060	8,300	8,560	8,560
DC7		DC-7B	Dry Ops	6,550	6,690	6,780	6,890	7,050	7,260	7,480	7,710	7,940	7,940
			Wet Ops	8,300	8,470	8,600	8,730	8,930	9,190	9,480	9,770	10,070	10,070
DC8		DC-8-63	Dry Ops	9,070	9,260	9,400	9,550	9,760	10,050	10,360	10,680	11,010	11,010
			Wet Ops	11,500	11,740	11,910	12,100	12,370	12,740	13,130	13,530	13,950	13,950
DC8S		Super DC-8 Series	Dry Ops	9,070	9,260	9,400	9,550	9,760	10,050	10,360	10,680	11,010	11,010
			Wet Ops	11,500	11,740	11,910	12,100	12,370	12,740	13,130	13,530	13,950	13,950
DC9	C9	DC-9-10	Dry Ops	5,940	6,060	6,150	6,250	6,390	6,580	6,780	6,990	7,200	7,200
			Wet Ops	7,520	7,680	7,790	7,920	8,100	8,340	8,590	8,860	9,130	9,130
DH1		Chipmunk DHC-1	Dry Ops	1,690	1,720	1,750	1,770	1,810	1,870	1,930	1,980	2,050	2,050
			Wet Ops	2,140	2,180	2,210	2,250	2,300	2,370	2,440	2,510	2,590	2,590
DH10		DeHavilland Dove	Dry Ops	3,580	3,650	3,700	3,760	3,850	3,960	4,080	4,210	4,340	4,340
			Wet Ops	4,530	4,630	4,690	4,770	4,870	5,020	5,170	5,330	5,490	5,490
DH11		DH-114 Heron	Dry Ops	6,460	6,590	6,690	6,790	6,950	7,150	7,370	7,600	7,830	7,830
			Wet Ops	8,180	8,350	8,470	8,610	8,800	9,060	9,340	9,630	9,920	9,920
DH2	U6	Beaver DHC-2	Dry Ops	1,870	1,910	1,940	1,970	2,020	2,080	2,140	2,200	2,270	2,270
			Wet Ops	2,370	2,420	2,460	2,500	2,550	2,630	2,710	2,790	2,880	2,880
DH2T		Turbo Beaver DHC-2T	Dry Ops	1,110	1,130	1,150	1,160	1,190	1,230	1,260	1,300	1,340	1,340
			Wet Ops	1,400	1,430	1,450	1,480	1,510	1,550	1,600	1,650	1,700	1,700
DH3	U1	DHC-3 Otter	Dry Ops	1,830	1,870	1,890	1,920	1,970	2,020	2,090	2,150	2,220	2,220
			Wet Ops	2,310	2,360	2,400	2,430	2,490	2,560	2,640	2,720	2,810	2,810
DH4	C7	DHC-4 Caribou	Dry Ops	2,310	2,360	2,400	2,430	2,490	2,560	2,640	2,720	2,810	2,810
			Wet Ops	2,930	2,990	3,040	3,080	3,150	3,250	3,350	3,450	3,550	3,550
DH5	C8	Buffalo DHC-5-D/E	Dry Ops	1,140	1,170	1,190	1,200	1,230	1,270	1,310	1,350	1,390	1,390
			Wet Ops	1,450	1,480	1,500	1,520	1,560	1,610	1,650	1,710	1,760	1,760
DH6	U18	Twin Otter DHC-6/100	Dry Ops	2,920	2,980	3,030	3,070	3,140	3,240	3,340	3,440	3,540	3,540
			Wet Ops	3,700	3,780	3,830	3,890	3,980	4,100	4,230	4,360	4,490	4,490
DH7		Dash 7 DHC-7/100	Dry Ops	2,360	2,410	2,450	2,480	2,540	2,610	2,690	2,780	2,860	2,860
			Wet Ops	2,990	3,050	3,100	3,150	3,220	3,310	3,410	3,520	3,630	3,630

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
DH8		Dash 8 / DHC-8/ 311	Dry Ops	6,180	6,300	6,400	6,500	6,640	6,840	7,050	7,270	7,490	7,490
			Wet Ops	7,820	7,990	8,110	8,230	8,420	8,670	8,940	9,210	9,490	9,490
DO27		DO-27	Dry Ops	1,080	1,100	1,120	1,140	1,160	1,200	1,230	1,270	1,310	1,310
			Wet Ops	1,370	1,400	1,420	1,440	1,470	1,510	1,560	1,610	1,660	1,660
DO28		DO-28-128	Dry Ops	1,440	1,470	1,500	1,520	1,550	1,600	1,650	1,700	1,750	1,750
			Wet Ops	1,830	1,870	1,890	1,920	1,970	2,030	2,090	2,150	2,220	2,220
DO81		DO-228-100 Series	Dry Ops	2,180	2,220	2,250	2,290	2,340	2,410	2,480	2,560	2,640	2,640
			Wet Ops	2,760	2,810	2,850	2,900	2,960	3,050	3,150	3,240	3,340	3,340
DO82		DO-228-200 Series	Dry Ops	3,160	3,230	3,280	3,330	3,400	3,510	3,610	3,720	3,840	3,840
			Wet Ops	4,010	4,090	4,150	4,220	4,310	4,440	4,580	4,720	4,860	4,860
E110		Bandeirante EMB-110	Dry Ops	5,430	5,540	5,620	5,710	5,840	6,010	6,200	6,390	6,580	6,580
			Wet Ops	6,880	7,020	7,120	7,230	7,400	7,620	7,850	8,090	8,340	8,340
E120		Brasilia EMB-120	Dry Ops	8,140	8,310	8,430	8,560	8,760	9,020	9,290	9,580	9,870	9,870
			Wet Ops	10,310	10,530	10,680	10,850	11,100	11,430	11,780	12,140	12,510	12,510
EA30		Airbus A-300	Dry Ops	5,050	5,160	5,230	5,320	5,440	5,600	5,770	5,950	6,130	6,130
			Wet Ops	6,400	6,540	6,630	6,740	6,890	7,090	7,310	7,540	7,770	7,770
EA31		A-310	Dry Ops	4,040	4,130	4,190	4,250	4,350	4,480	4,620	4,760	4,900	4,900
			Wet Ops	5,120	5,230	5,310	5,390	5,510	5,680	5,850	6,030	6,210	6,210
EA32		Airbus A-320	Dry Ops	4,830	4,930	5,000	5,080	5,200	5,350	5,510	5,680	5,860	5,860
			Wet Ops	6,120	6,250	6,340	6,440	6,580	6,780	6,990	7,200	7,420	7,420
EA33		Airbus 330	Dry Ops	6,480	6,610	6,710	6,810	6,970	7,180	7,400	7,620	7,860	7,860
			Wet Ops	8,210	8,380	8,500	8,640	8,830	9,100	9,370	9,660	9,960	9,960
EA34		Airbus 340	Dry Ops	7,040	7,190	7,290	7,400	7,570	7,800	8,040	8,280	8,540	8,540
			Wet Ops	8,920	9,110	9,240	9,380	9,600	9,880	10,190	10,500	10,820	10,820
F02		Aircoupe A-2	Dry Ops	2,440	2,490	2,520	2,560	2,620	2,700	2,780	2,870	2,950	2,950
			Wet Ops	3,080	3,150	3,200	3,250	3,320	3,420	3,520	3,630	3,740	3,740
FA24	C119	Flying Box Car	Dry Ops	3,950	4,030	4,090	4,150	4,250	4,380	4,510	4,650	4,790	4,790
			Wet Ops	5,000	5,110	5,180	5,260	5,380	5,540	5,710	5,890	6,070	6,070
FA27		Friendship F-27	Dry Ops	7,030	7,170	7,280	7,390	7,560	7,780	8,020	8,270	8,520	8,520
			Wet Ops	8,900	9,090	9,220	9,370	9,580	9,860	10,170	10,480	10,800	10,800
FK10		Fokker F-27 MK-100	Dry Ops	5,910	6,040	6,130	6,220	6,360	6,550	6,750	6,960	7,170	7,170
			Wet Ops	7,490	7,650	7,760	7,880	8,060	8,300	8,560	8,820	9,090	9,090
FK27		Friendship F27 MK 500	Dry Ops	7,020	7,160	7,270	7,380	7,550	7,770	8,010	8,260	8,510	8,510
			Wet Ops	8,890	9,080	9,210	9,350	9,570	9,850	10,150	10,460	10,780	10,780

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
FK28		Fellowship F28 MK 100	Dry Ops	4,970	5,080	5,150	5,230	5,350	5,510	5,680	5,850	6,030	6,030
			Wet Ops	6,300	6,430	6,530	6,630	6,780	6,980	7,200	7,420	7,640	7,640
FK50		Fokker 50	Dry Ops	2,950	3,010	3,060	3,100	3,170	3,270	3,370	3,470	3,580	3,580
			Wet Ops	3,740	3,820	3,870	3,930	4,020	4,140	4,270	4,400	4,530	4,530
G134	OV1	Mohawk	Dry Ops	1,590	1,620	1,640	1,670	1,710	1,760	1,810	1,870	1,930	1,930
			Wet Ops	2,010	2,050	2,080	2,120	2,160	2,230	2,300	2,370	2,440	2,440
G159	VC4	GAC 159-C Gulfstream I	Dry Ops	5,150	5,250	5,330	5,410	5,540	5,700	5,880	6,060	6,240	6,240
			Wet Ops	6,520	6,660	6,760	6,860	7,020	7,230	7,450	7,680	7,910	7,910
G164		G-164/Turbo Ag-Cat	Dry Ops	1,690	1,720	1,750	1,770	1,810	1,870	1,930	1,980	2,050	2,050
			Wet Ops	2,140	2,180	2,210	2,250	2,300	2,370	2,440	2,510	2,590	2,590
G2	VC11	Gulfstream II	Dry Ops	5,860	5,980	6,070	6,160	6,300	6,490	6,690	6,890	7,100	7,100
			Wet Ops	7,420	7,580	7,690	7,810	7,990	8,220	8,480	8,740	9,000	9,000
G21		Goose/Super Goose	Dry Ops	5,330	5,450	5,530	5,610	5,740	5,910	6,090	6,280	6,470	6,470
			Wet Ops	6,760	6,900	7,000	7,110	7,270	7,490	7,720	7,950	8,200	8,200
G3	C20	Gulfstream III	Dry Ops	5,950	6,080	6,160	6,260	6,400	6,590	6,800	7,000	7,220	7,220
			Wet Ops	7,540	7,700	7,810	7,930	8,110	8,350	8,610	8,870	9,150	9,150
G4		Gulfstream IV	Dry Ops	6,270	6,400	6,490	6,590	6,740	6,950	7,160	7,380	7,600	7,600
			Wet Ops	7,940	8,110	8,230	8,360	8,550	8,800	9,070	9,350	9,630	9,630
G44		Widgeon/Super Widgeon	Dry Ops	4,210	4,300	4,360	4,430	4,530	4,670	4,810	4,960	5,110	5,110
			Wet Ops	5,340	5,450	5,530	5,610	5,740	5,910	6,090	6,280	6,470	6,470
G64	U16	Albatross***	Dry Ops	3,740	3,820	3,880	3,940	4,030	4,150	4,280	4,410	4,540	4,540
			Wet Ops	4,740	4,840	4,910	4,990	5,100	5,260	5,420	5,580	5,750	5,750
G73		Mallard	Dry Ops	4,490	4,590	4,650	4,730	4,830	4,980	5,130	5,290	5,450	5,450
			Wet Ops	5,690	5,810	5,900	5,990	6,120	6,310	6,500	6,700	6,900	6,900
G93	F9*	Cougar G-93	Dry Ops	1,290	1,320	1,340	1,360	1,390	1,430	1,480	1,520	1,570	1,570
			Wet Ops	1,640	1,670	1,700	1,720	1,760	1,820	1,870	1,930	1,990	1,990
GA7		Cougar GA-7	Dry Ops	1,290	1,320	1,340	1,360	1,390	1,430	1,480	1,520	1,570	1,570
			Wet Ops	1,640	1,670	1,700	1,720	1,760	1,820	1,870	1,930	1,990	1,990
GC1		Globe Swift	Dry Ops	2,810	2,870	2,910	2,950	3,020	3,110	3,210	3,310	3,410	3,410
			Wet Ops	3,560	3,630	3,690	3,740	3,830	3,940	4,060	4,190	4,320	4,320
GL8		Luscomb	Dry Ops	1,870	1,910	1,940	1,970	2,020	2,080	2,140	2,200	2,270	2,270
			Wet Ops	2,370	2,420	2,460	2,500	2,550	2,630	2,710	2,790	2,880	2,880
GR09		Grob G-109	Dry Ops	2,400	2,450	2,480	2,520	2,580	2,660	2,740	2,820	2,910	2,910
			Wet Ops	3,040	3,100	3,150	3,200	3,270	3,370	3,470	3,570	3,680	3,680

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
GR15		Grob G-115	Dry Ops	3,070	3,140	3,180	3,230	3,300	3,400	3,510	3,610	3,720	3,720
			Wet Ops	3,890	3,970	4,030	4,090	4,190	4,310	4,440	4,580	4,720	4,720
HE25		Helio H-250 Mk II	Dry Ops	1,690	1,720	1,750	1,770	1,810	1,870	1,930	1,980	2,050	2,050
			Wet Ops	2,140	2,180	2,210	2,250	2,300	2,370	2,440	2,510	2,590	2,590
HE29	U10	H-295 Super Courier	Dry Ops	1,690	1,720	1,750	1,770	1,810	1,870	1,930	1,980	2,050	2,050
			Wet Ops	2,140	2,180	2,210	2,250	2,300	2,370	2,440	2,510	2,590	2,590
HE35		H-395 Super Courier	Dry Ops	680	690	700	710	730	750	770	800	820	820
			Wet Ops	860	880	890	900	920	950	980	1,010	1,040	1,040
HE39		H-391 Courier	Dry Ops	1,090	1,110	1,130	1,140	1,170	1,210	1,240	1,280	1,320	1,320
			Wet Ops	1,380	1,410	1,430	1,450	1,480	1,530	1,570	1,620	1,670	1,670
HE55	AU24	H-550/A Stallion	Dry Ops	950	970	980	1,000	1,020	1,050	1,080	1,110	1,150	1,150
			Wet Ops	1,200	1,220	1,240	1,260	1,290	1,330	1,370	1,410	1,450	1,450
HE58		H-580 Courier	Dry Ops	1,180	1,210	1,220	1,240	1,270	1,310	1,350	1,390	1,430	1,430
			Wet Ops	1,500	1,530	1,550	1,570	1,610	1,660	1,710	1,760	1,820	1,820
HE63		H-634 Twin Courier	Dry Ops	1,230	1,250	1,270	1,290	1,320	1,360	1,400	1,450	1,490	1,490
			Wet Ops	1,560	1,590	1,610	1,640	1,670	1,720	1,780	1,830	1,890	1,890
HF32		HFB-320 Hansaj Turbojet	Dry Ops	8,290	8,460	8,580	8,720	8,920	9,180	9,460	9,750	10,050	10,050
			Wet Ops	10,500	10,720	10,880	11,050	11,300	11,630	11,990	12,360	12,740	12,740
HP13		Jetstream HP-137 MK - 1	Dry Ops	4,260	4,350	4,410	4,480	4,580	4,720	4,860	5,010	5,160	5,160
			Wet Ops	5,400	5,510	5,590	5,680	5,810	5,980	6,160	6,350	6,540	6,540
HS21		Trident 3-B	Dry Ops	6,630	6,770	6,870	6,980	7,140	7,350	7,570	7,810	8,050	8,050
			Wet Ops	8,410	8,580	8,710	8,840	9,040	9,310	9,600	9,890	10,200	10,200
HS25		BAe 125-800A	Dry Ops	5,170	5,270	5,350	5,430	5,560	5,720	5,900	6,080	6,260	6,260
			Wet Ops	6,550	6,680	6,780	6,890	7,040	7,250	7,470	7,700	7,940	7,940
HS74		BAe-ATP	Dry Ops	4,160	4,240	4,300	4,370	4,470	4,600	4,740	4,890	5,040	5,040
			Wet Ops	5,270	5,380	5,450	5,540	5,670	5,830	6,010	6,200	6,390	6,390
HXA_		Home built less than 100kt	Dry Ops	940	960	970	990	1,010	1,040	1,070	1,100	1,140	1,140
			Wet Ops	1,190	1,210	1,230	1,250	1,280	1,320	1,360	1,400	1,440	1,440
HXB_		Home built 100 to 200 kt	Dry Ops	1,290	1,320	1,340	1,360	1,390	1,430	1,480	1,520	1,570	1,570
			Wet Ops	1,640	1,670	1,700	1,720	1,760	1,820	1,870	1,930	1,990	1,990
HXC_		Home built greater 200kt	Dry Ops	2,250	2,300	2,330	2,360	2,420	2,490	2,570	2,650	2,730	2,730
			Wet Ops	2,850	2,910	2,950	3,000	3,060	3,160	3,250	3,350	3,450	3,450
IL62		IL-62	Dry Ops	9,560	9,760	9,900	10,050	10,280	10,590	10,910	11,250	11,590	11,590
			Wet Ops	12,110	12,360	12,550	12,740	13,030	13,420	13,830	14,250	14,690	14,690

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
IL76		IL-76	Dry Ops	10,110	10,320	10,470	10,630	10,870	11,200	11,540	11,890	12,260	12,260
			Wet Ops	12,810	13,080	13,270	13,470	13,780	14,190	14,620	15,070	15,530	15,530
L101		L-1011-500	Dry Ops	7,610	7,770	7,890	8,010	8,190	8,440	8,700	8,960	9,240	9,240
			Wet Ops	9,650	9,850	10,000	10,150	10,380	10,690	11,020	11,360	11,700	11,700
L164		Starliner	Dry Ops	6,740	6,880	6,980	7,090	7,250	7,460	7,690	7,930	8,170	8,170
			Wet Ops	8,540	8,720	8,840	8,980	9,180	9,460	9,750	10,050	10,350	10,350
L18		Lockheed Lodestar	Dry Ops	6,550	6,690	6,780	6,890	7,050	7,260	7,480	7,710	7,940	7,940
			Wet Ops	8,300	8,470	8,600	8,730	8,930	9,190	9,480	9,770	10,070	10,070
L188	P3	Electra 188A 185/285 Orion	Dry Ops	5,500	5,620	5,700	5,790	5,920	6,100	6,280	6,470	6,670	6,670
			Wet Ops	6,970	7,120	7,220	7,330	7,500	7,720	7,960	8,210	8,460	8,460
L295		Model 1329-5 Jetstar II	Dry Ops	7,710	7,870	7,990	8,110	8,290	8,540	8,800	9,070	9,350	9,350
			Wet Ops	9,770	9,970	10,120	10,280	10,510	10,820	11,150	11,500	11,850	11,850
L329	C140	Lockheed Jetstar 1329	Dry Ops	6,160	6,290	6,380	6,480	6,620	6,820	7,030	7,250	7,470	7,470
			Wet Ops	7,800	7,970	8,080	8,210	8,390	8,640	8,910	9,180	9,460	9,460
L382	C130	Hercules L382G	Dry Ops	5,450	5,560	5,640	5,730	5,860	6,030	6,220	6,410	6,600	6,600
			Wet Ops	6,900	7,050	7,150	7,260	7,420	7,650	7,880	8,120	8,370	8,370
L49		Super Constellation	Dry Ops	4,190	4,280	4,340	4,410	4,510	4,650	4,790	4,930	5,090	5,090
			Wet Ops	5,310	5,420	5,500	5,590	5,720	5,890	6,070	6,250	6,440	6,440
L649		Constellation 649	Dry Ops	5,050	5,160	5,230	5,320	5,440	5,600	5,770	5,950	6,130	6,130
			Wet Ops	6,400	6,540	6,630	6,740	6,890	7,090	7,310	7,540	7,770	7,770
L749		Constellation 749	Dry Ops	5,240	5,350	5,430	5,510	5,640	5,810	5,980	6,170	6,360	6,360
			Wet Ops	6,640	6,780	6,880	6,990	7,140	7,360	7,580	7,810	8,050	8,050
LA04		LA-4/A/B	Dry Ops	2,640	2,700	2,740	2,780	2,840	2,930	3,020	3,110	3,200	3,200
			Wet Ops	3,350	3,420	3,470	3,520	3,600	3,710	3,820	3,940	4,060	4,060
LA25		LA-250 Renegade/SeaFury	Dry Ops	2,640	2,700	2,740	2,780	2,840	2,930	3,020	3,110	3,200	3,200
			Wet Ops	3,350	3,420	3,470	3,520	3,600	3,710	3,820	3,940	4,060	4,060
LA2T		LA-250 Turbo ***	Dry Ops	2,640	2,700	2,740	2,780	2,840	2,930	3,020	3,110	3,200	3,200
			Wet Ops	3,350	3,420	3,470	3,520	3,600	3,710	3,820	3,940	4,060	4,060
LA42		LA-4-200 Buccaneer***	Dry Ops	1,450	1,480	1,510	1,530	1,560	1,610	1,660	1,710	1,760	1,760
			Wet Ops	1,840	1,880	1,910	1,940	1,980	2,040	2,100	2,170	2,230	2,230
LARK		Aero Commander Lark	Dry Ops	1,910	1,950	1,980	2,010	2,060	2,120	2,180	2,250	2,320	2,320
			Wet Ops	2,420	2,470	2,510	2,550	2,610	2,680	2,760	2,850	2,940	2,940
LR23		Learjet 23	Dry Ops	6,180	6,300	6,400	6,500	6,640	6,840	7,050	7,270	7,490	7,490
			Wet Ops	7,820	7,990	8,110	8,230	8,420	8,670	8,940	9,210	9,490	9,490

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
LR24		Learjet 24	Dry Ops	5,050	5,160	5,230	5,320	5,440	5,600	5,770	5,950	6,130	6,130
			Wet Ops	6,400	6,540	6,630	6,740	6,890	7,090	7,310	7,540	7,770	7,770
LR25		Learjet 25	Dry Ops	6,740	6,880	6,980	7,090	7,250	7,460	7,690	7,930	8,170	8,170
			Wet Ops	8,540	8,720	8,840	8,980	9,180	9,460	9,750	10,050	10,350	10,350
LR28		Learjet 28	Dry Ops	5,240	5,350	5,430	5,510	5,640	5,810	5,980	6,170	6,360	6,360
			Wet Ops	6,640	6,780	6,880	6,990	7,140	7,360	7,580	7,810	8,050	8,050
LR29		Learjet 29	Dry Ops	5,240	5,350	5,430	5,510	5,640	5,810	5,980	6,170	6,360	6,360
			Wet Ops	6,640	6,780	6,880	6,990	7,140	7,360	7,580	7,810	8,050	8,050
LR31		Learjet 31	Dry Ops	5,610	5,730	5,820	5,910	6,040	6,220	6,410	6,610	6,810	6,810
			Wet Ops	7,110	7,260	7,370	7,480	7,650	7,880	8,120	8,370	8,630	8,630
LR35		Learjet 35	Dry Ops	7,110	7,260	7,370	7,480	7,650	7,880	8,120	8,370	8,620	8,620
			Wet Ops	9,010	9,200	9,330	9,480	9,690	9,980	10,290	10,600	10,930	10,930
LR36		Learjet 36	Dry Ops	7,110	7,260	7,370	7,480	7,650	7,880	8,120	8,370	8,620	8,620
			Wet Ops	9,010	9,200	9,330	9,480	9,690	9,980	10,290	10,600	10,930	10,930
LR55		Learjet 55	Dry Ops	6,080	6,210	6,300	6,400	6,540	6,740	6,940	7,160	7,380	7,380
			Wet Ops	7,710	7,870	7,980	8,110	8,290	8,540	8,800	9,070	9,350	9,350
LR60		Learjet 60	Dry Ops	8,180	8,350	8,470	8,600	8,800	9,060	9,340	9,620	9,920	9,920
			Wet Ops	10,360	10,580	10,730	10,900	11,150	11,480	11,830	12,190	12,570	12,570
M260		Marchetti SF-260TP	Dry Ops	3,270	3,340	3,390	3,440	3,520	3,630	3,740	3,850	3,970	3,970
			Wet Ops	4,150	4,240	4,300	4,360	4,460	4,600	4,740	4,880	5,030	5,030
M404		Martin 404	Dry Ops	3,280	3,350	3,390	3,450	3,530	3,630	3,740	3,860	3,970	3,970
			Wet Ops	4,150	4,240	4,300	4,370	4,470	4,600	4,740	4,890	5,030	5,030
MD11		MD-11	Dry Ops	8,290	8,460	8,590	8,720	8,920	9,180	9,470	9,760	10,050	10,050
			Wet Ops	10,510	10,730	10,880	11,050	11,300	11,640	12,000	12,360	12,740	12,740
MD8		DC-9 Super/MD-80 Series	Dry Ops	6,160	6,290	6,380	6,480	6,630	6,830	7,040	7,250	7,470	7,470
			Wet Ops	7,810	7,970	8,090	8,210	8,400	8,650	8,920	9,190	9,470	9,470
MD90		Douglas MD-90	Dry Ops	5,880	6,010	6,090	6,190	6,330	6,520	6,720	6,920	7,140	7,140
			Wet Ops	7,460	7,610	7,720	7,840	8,020	8,260	8,510	8,770	9,040	9,040
ML4		Maule Strata Rocket	Dry Ops	1,130	1,150	1,170	1,180	1,210	1,250	1,290	1,320	1,360	1,360
			Wet Ops	1,430	1,460	1,480	1,500	1,530	1,580	1,630	1,680	1,730	1,730
ML5		M-5 180C/200/235C Lunar-	Dry Ops	940	960	970	990	1,010	1,040	1,070	1,100	1,140	1,140
			Wet Ops	1,190	1,210	1,230	1,250	1,280	1,320	1,360	1,400	1,440	1,440
ML6		M-6 235 Super-Rocket	Dry Ops	1,130	1,150	1,170	1,180	1,210	1,250	1,290	1,320	1,360	1,360
			Wet Ops	1,430	1,460	1,480	1,500	1,530	1,580	1,630	1,680	1,730	1,730

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
MO10		Mooney M-10 Cadet	Dry Ops	1,000	1,020	1,030	1,050	1,070	1,100	1,140	1,170	1,210	1,210
			Wet Ops	1,260	1,290	1,310	1,330	1,360	1,400	1,440	1,480	1,530	1,530
MO18		M-18 Mooney Mite	Dry Ops	920	940	950	970	990	1,020	1,050	1,080	1,120	1,120
			Wet Ops	1,170	1,190	1,210	1,230	1,250	1,290	1,330	1,370	1,410	1,410
MO20		Mooney MK 20	Dry Ops	3,740	3,820	3,880	3,940	4,030	4,150	4,280	4,410	4,540	4,540
			Wet Ops	4,740	4,840	4,910	4,990	5,100	5,260	5,420	5,580	5,750	5,750
MO21		Mooney Mk 21 Ranger	Dry Ops	2,900	2,960	3,010	3,050	3,120	3,220	3,310	3,420	3,520	3,520
			Wet Ops	3,680	3,750	3,810	3,870	3,960	4,070	4,200	4,330	4,460	4,460
MO22		Mooney Mk 22	Dry Ops	2,900	2,960	3,000	3,050	3,120	3,210	3,310	3,410	3,520	3,520
			Wet Ops	3,680	3,750	3,810	3,870	3,950	4,070	4,200	4,320	4,460	4,460
MO2J		Mooney 201	Dry Ops	3,900	3,980	4,040	4,110	4,200	4,320	4,460	4,590	4,730	4,730
			Wet Ops	4,950	5,050	5,120	5,200	5,320	5,480	5,650	5,820	6,000	6,000
MO2K		Mooney 252	Dry Ops	4,320	4,410	4,480	4,550	4,650	4,790	4,940	5,090	5,240	5,240
			Wet Ops	5,480	5,590	5,680	5,760	5,890	6,070	6,260	6,450	6,640	6,640
MU2		Mitsubishi MU-2	Dry Ops	4,490	4,590	4,650	4,730	4,830	4,980	5,130	5,290	5,450	5,450
			Wet Ops	5,690	5,810	5,900	5,990	6,120	6,310	6,500	6,700	6,900	6,900
MU24		MU-2B-36	Dry Ops	7,480	7,640	7,750	7,870	8,050	8,290	8,550	8,810	9,080	9,080
			Wet Ops	9,480	9,680	9,830	9,980	10,200	10,510	10,830	11,160	11,500	11,500
MU26		MU-2B-60 Marquise	Dry Ops	5,520	5,640	5,720	5,810	5,940	6,120	6,300	6,500	6,700	6,700
			Wet Ops	7,000	7,140	7,250	7,360	7,530	7,750	7,990	8,230	8,480	8,480
MU3		Mitsubishi Diamond I/300	Dry Ops	5,240	5,350	5,430	5,510	5,640	5,810	5,980	6,170	6,360	6,360
			Wet Ops	6,640	6,780	6,880	6,990	7,140	7,360	7,580	7,810	8,050	8,050
N145		Navion	Dry Ops	2,440	2,490	2,520	2,560	2,620	2,700	2,780	2,870	2,950	2,950
			Wet Ops	3,080	3,150	3,200	3,250	3,320	3,420	3,520	3,630	3,740	3,740
N265	T39	Sabreliner - 65	Dry Ops	6,490	6,630	6,730	6,830	6,990	7,190	7,410	7,640	7,880	7,880
			Wet Ops	8,230	8,400	8,520	8,660	8,850	9,120	9,400	9,680	9,980	9,980
N6	T6	Texan	Dry Ops	2,440	2,490	2,520	2,560	2,620	2,700	2,780	2,870	2,950	2,950
			Wet Ops	3,080	3,150	3,200	3,250	3,320	3,420	3,520	3,630	3,740	3,740
NA1		Rangemaster	Dry Ops	2,150	2,200	2,230	2,270	2,320	2,390	2,460	2,540	2,610	2,610
			Wet Ops	2,730	2,790	2,830	2,870	2,940	3,020	3,120	3,210	3,310	3,310
NA16		Twin - Navion	Dry Ops	1,130	1,150	1,170	1,180	1,210	1,250	1,290	1,320	1,360	1,360
			Wet Ops	1,430	1,460	1,480	1,500	1,530	1,580	1,630	1,680	1,730	1,730
NW2		Israel Westwind	Dry Ops	7,480	7,640	7,750	7,870	8,050	8,290	8,550	8,810	9,080	9,080
			Wet Ops	9,480	9,680	9,830	9,980	10,200	10,510	10,830	11,160	11,500	11,500

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
P808		Vespa Jet PD-808	Dry Ops	7,110	7,260	7,370	7,480	7,650	7,880	8,120	8,370	8,620	8,620
			Wet Ops	9,010	9,200	9,330	9,480	9,690	9,980	10,290	10,600	10,930	10,930
PA11		Cub Special	Dry Ops	550	560	570	570	590	600	620	640	660	660
			Wet Ops	690	710	720	730	740	770	790	810	840	840
PA12		Super Cruiser	Dry Ops	900	920	930	950	970	1,000	1,030	1,060	1,090	1,090
			Wet Ops	1,140	1,170	1,180	1,200	1,230	1,260	1,300	1,340	1,380	1,380
PA14		Family Cruiser	Dry Ops	940	960	970	990	1,010	1,040	1,070	1,100	1,140	1,140
			Wet Ops	1,190	1,210	1,230	1,250	1,280	1,320	1,360	1,400	1,440	1,440
PA15		Vagabond Trainer	Dry Ops	880	900	910	930	950	980	1,010	1,040	1,070	1,070
			Wet Ops	1,120	1,140	1,160	1,180	1,200	1,240	1,280	1,320	1,360	1,360
PA16		Clipper	Dry Ops	1,270	1,290	1,310	1,330	1,360	1,400	1,450	1,490	1,540	1,540
			Wet Ops	1,600	1,640	1,660	1,690	1,730	1,780	1,830	1,890	1,940	1,940
PA17		Vagabond	Dry Ops	910	920	940	950	970	1,000	1,030	1,060	1,100	1,100
			Wet Ops	1,150	1,170	1,190	1,210	1,230	1,270	1,310	1,350	1,390	1,390
PA18	U7	Super_Cub	Dry Ops	660	670	680	690	710	730	750	770	800	800
			Wet Ops	830	850	860	880	900	920	950	980	1,010	1,010
PA2		Cub Trainer	Dry Ops	310	320	330	330	340	350	360	370	380	380
			Wet Ops	400	410	410	420	430	440	450	470	480	480
PA20		Pacer	Dry Ops	850	860	880	890	910	940	960	990	1,020	1,020
			Wet Ops	1,070	1,090	1,110	1,130	1,150	1,190	1,220	1,260	1,300	1,300
PA22		Piper Colt (PA-22-108)	Dry Ops	990	1,010	1,020	1,040	1,060	1,090	1,130	1,160	1,190	1,190
			Wet Ops	1,250	1,270	1,290	1,310	1,340	1,380	1,420	1,470	1,510	1,510
PA23		Apache (PA-23-250)	Dry Ops	1,410	1,440	1,460	1,480	1,510	1,560	1,610	1,650	1,710	1,710
			Wet Ops	1,780	1,820	1,850	1,870	1,920	1,970	2,030	2,100	2,160	2,160
PA24		Comanche	Dry Ops	1,810	1,850	1,870	1,900	1,950	2,000	2,060	2,130	2,190	2,190
			Wet Ops	2,290	2,340	2,370	2,410	2,460	2,540	2,620	2,700	2,780	2,780
PA25		Pawnee	Dry Ops	830	840	860	870	890	920	940	970	1,000	1,000
			Wet Ops	1,050	1,070	1,080	1,100	1,130	1,160	1,190	1,230	1,270	1,270
PA28	T35	Cherokee Archer Dakota/W	Dry Ops	3,220	3,290	3,340	3,390	3,460	3,570	3,680	3,790	3,910	3,910
			Wet Ops	4,080	4,170	4,230	4,290	4,390	4,520	4,660	4,800	4,950	4,950
PA30		Piper PA-30 Twin Comanch	Dry Ops	1,310	1,340	1,360	1,380	1,410	1,450	1,500	1,540	1,590	1,590
			Wet Ops	1,660	1,700	1,720	1,750	1,790	1,840	1,900	1,960	2,020	2,020
PA31		Chieftan Mohave Navajo T-	Dry Ops	4,320	4,410	4,480	4,550	4,650	4,790	4,940	5,090	5,240	5,240
			Wet Ops	5,480	5,590	5,680	5,760	5,890	6,070	6,260	6,450	6,640	6,640

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PA32		Cherokee Six Lance Saratog	Dry Ops	3,240	3,310	3,360	3,410	3,480	3,590	3,700	3,810	3,930	3,930
			Wet Ops	4,100	4,190	4,250	4,320	4,420	4,550	4,690	4,830	4,980	4,980
PA34		Piper Seneca PA-34	Dry Ops	4,870	4,970	5,040	5,120	5,240	5,390	5,560	5,730	5,900	5,900
			Wet Ops	6,170	6,300	6,390	6,490	6,630	6,830	7,040	7,260	7,480	7,480
PA36		Piper PA-36 Pawnee (Ag)	Dry Ops	940	960	970	990	1,010	1,040	1,070	1,100	1,140	1,140
			Wet Ops	1,190	1,210	1,230	1,250	1,280	1,320	1,360	1,400	1,440	1,440
PA38		Piper Tomahawk	Dry Ops	2,880	2,940	2,990	3,030	3,100	3,190	3,290	3,390	3,500	3,500
			Wet Ops	3,650	3,730	3,790	3,840	3,930	4,050	4,170	4,300	4,430	4,430
PA41		Piper Cheyenne I	Dry Ops	4,590	4,680	4,750	4,820	4,930	5,080	5,240	5,400	5,560	5,560
			Wet Ops	5,810	5,930	6,020	6,110	6,250	6,440	6,640	6,840	7,050	7,050
PA42		Cheyenne III/IV 400LS	Dry Ops	4,270	4,360	4,420	4,490	4,590	4,730	4,870	5,020	5,180	5,180
			Wet Ops	5,410	5,520	5,600	5,690	5,820	5,990	6,170	6,360	6,560	6,560
PA44		Piper PA-44 Seminole	Dry Ops	2,620	2,680	2,720	2,760	2,820	2,900	2,990	3,090	3,180	3,180
			Wet Ops	3,320	3,390	3,440	3,490	3,570	3,680	3,790	3,910	4,030	4,030
PA46		Piper PA-46 Malibu	Dry Ops	3,350	3,420	3,470	3,530	3,610	3,710	3,830	3,940	4,060	4,060
			Wet Ops	4,250	4,340	4,400	4,470	4,570	4,700	4,850	5,000	5,150	5,150
PA5		Piper Cruiser	Dry Ops	640	650	660	670	690	710	730	750	780	780
			Wet Ops	810	830	840	850	870	900	920	950	980	980
PA60		Aero Star 600/700	Dry Ops	3,440	3,520	3,570	3,620	3,710	3,820	3,930	4,050	4,180	4,180
			Wet Ops	4,360	4,460	4,520	4,590	4,700	4,840	4,980	5,140	5,290	5,290
PARO		Cherokee Arrow IV	Dry Ops	2,850	2,910	2,950	2,990	3,060	3,150	3,250	3,350	3,450	3,450
			Wet Ops	3,610	3,680	3,740	3,790	3,880	4,000	4,120	4,240	4,370	4,370
PAT4		T-1040	Dry Ops	4,940	5,040	5,120	5,200	5,320	5,470	5,640	5,810	5,990	5,990
			Wet Ops	6,260	6,390	6,490	6,590	6,740	6,940	7,150	7,370	7,590	7,590
PAYE		Cheyenne II	Dry Ops	4,590	4,680	4,750	4,820	4,930	5,080	5,240	5,400	5,560	5,560
			Wet Ops	5,810	5,930	6,020	6,110	6,250	6,440	6,640	6,840	7,050	7,050
PAZT	U11	Piper PA-23-250 Aztec	Dry Ops	2,980	3,040	3,080	3,130	3,200	3,300	3,400	3,500	3,610	3,610
			Wet Ops	3,770	3,850	3,910	3,970	4,060	4,180	4,310	4,440	4,570	4,570
PL6	AV23	Pilatus Peacemaker	Dry Ops	1,570	1,610	1,630	1,660	1,690	1,740	1,800	1,850	1,910	1,910
			Wet Ops	1,990	2,040	2,070	2,100	2,150	2,210	2,280	2,350	2,420	2,420
PL6A		PC-6A/B Turbo Porter	Dry Ops	1,320	1,350	1,370	1,390	1,420	1,460	1,510	1,560	1,600	1,600
			Wet Ops	1,670	1,710	1,740	1,760	1,800	1,860	1,910	1,970	2,030	2,030
PL7		Pilatus PC-7	Dry Ops	960	980	990	1,010	1,030	1,060	1,090	1,130	1,160	1,160
			Wet Ops	1,210	1,240	1,260	1,280	1,300	1,340	1,380	1,430	1,470	1,470

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PN66		P.66C Charlie	Dry Ops	2,810	2,870	2,910	2,950	3,020	3,110	3,210	3,310	3,410	3,410
			Wet Ops	3,560	3,630	3,690	3,740	3,830	3,940	4,060	4,190	4,320	4,320
PN68		Partenavia P-68	Dry Ops	740	760	770	780	800	820	850	870	900	900
			Wet Ops	940	960	970	990	1,010	1,040	1,070	1,110	1,140	1,140
PN6P		AP - 68TP-600	Dry Ops	5,990	6,110	6,200	6,300	6,440	6,630	6,840	7,050	7,260	7,260
			Wet Ops	7,590	7,750	7,860	7,980	8,160	8,410	8,660	8,930	9,200	9,200
RV01		101 Avara	Dry Ops	4,020	4,110	4,170	4,230	4,330	4,460	4,600	4,740	4,880	4,880
			Wet Ops	5,100	5,210	5,280	5,360	5,490	5,650	5,820	6,000	6,180	6,180
S200		TB-200	Dry Ops	2,760	2,820	2,860	2,910	2,970	3,060	3,150	3,250	3,350	3,350
			Wet Ops	3,500	3,570	3,630	3,680	3,770	3,880	4,000	4,120	4,240	4,240
S210		C 160 Transall	Dry Ops	9,820	10,020	10,170	10,330	10,560	10,880	11,210	11,550	11,910	11,910
			Wet Ops	12,440	12,700	12,890	13,090	13,390	13,790	14,210	14,640	15,090	15,090
S601		Corvette SN-601	Dry Ops	4,310	4,400	4,460	4,530	4,630	4,770	4,920	5,070	5,220	5,220
			Wet Ops	5,450	5,570	5,650	5,740	5,870	6,040	6,230	6,420	6,620	6,620
S700		TBM-700, TBM-700-A	Dry Ops	5,150	5,250	5,330	5,410	5,540	5,700	5,880	6,060	6,240	6,240
			Wet Ops	6,520	6,660	6,760	6,860	7,020	7,230	7,450	7,680	7,910	7,910
SF34		34-B	Dry Ops	3,820	3,900	3,960	4,020	4,110	4,230	4,360	4,490	4,630	4,630
			Wet Ops	4,840	4,940	5,010	5,090	5,210	5,360	5,530	5,690	5,870	5,870
SF60		SIAI Marchetti SF-600	Dry Ops	3,360	3,430	3,480	3,540	3,620	3,720	3,840	3,950	4,080	4,080
			Wet Ops	4,260	4,350	4,410	4,480	4,580	4,720	4,860	5,010	5,160	5,160
SH33		Shorts Brothers 330-100	Dry Ops	4,100	4,190	4,250	4,310	4,410	4,540	4,680	4,820	4,970	4,970
			Wet Ops	5,190	5,300	5,380	5,460	5,590	5,750	5,930	6,110	6,300	6,300
SH36		Shorts 360-100	Dry Ops	4,440	4,530	4,600	4,670	4,770	4,910	5,070	5,220	5,380	5,380
			Wet Ops	5,620	5,740	5,820	5,910	6,050	6,230	6,420	6,620	6,820	6,820
SH7		Shorts SC.7 Skyvan	Dry Ops	2,780	2,840	2,880	2,920	2,990	3,080	3,170	3,270	3,370	3,370
			Wet Ops	3,520	3,590	3,650	3,700	3,790	3,900	4,020	4,140	4,270	4,270
ST75		Voyager/Station Wagon 10	Dry Ops	3,070	3,140	3,180	3,230	3,300	3,400	3,510	3,610	3,720	3,720
			Wet Ops	3,890	3,970	4,030	4,090	4,190	4,310	4,440	4,580	4,720	4,720
STB9		TB-9	Dry Ops	2,370	2,420	2,450	2,490	2,550	2,620	2,700	2,780	2,870	2,870
			Wet Ops	3,000	3,060	3,110	3,150	3,220	3,320	3,420	3,530	3,630	3,630
SW2		Merlin IIA/B III/B/C IVA	Dry Ops	4,490	4,590	4,650	4,730	4,830	4,980	5,130	5,290	5,450	5,450
			Wet Ops	5,690	5,810	5,900	5,990	6,120	6,310	6,500	6,700	6,900	6,900
SW3		Metro III Merlin IVC	Dry Ops	5,050	5,160	5,230	5,320	5,440	5,600	5,770	5,950	6,130	6,130
			Wet Ops	6,400	6,540	6,630	6,740	6,890	7,090	7,310	7,540	7,770	7,770

AC ID	Military ID	Model Name	Field Elevation	0 - 499	500 - 999	1,000 - 1,499	1,500 - 1,999	2,000 - 2,999	3,000 - 3,999	4,000 - 4,999	5,000 - 5,999	6,000 - 6,999	7,000 and up
SW4		Metro II/A	Dry Ops	6,640	6,780	6,880	6,990	7,150	7,360	7,590	7,820	8,060	8,060
			Wet Ops	8,420	8,590	8,720	8,860	9,060	9,330	9,610	9,910	10,210	10,210
T39		Tampico Club TB-9 (STB-9	Dry Ops	2,580	2,640	2,680	2,720	2,780	2,860	2,950	3,040	3,130	3,130
			Wet Ops	3,270	3,340	3,390	3,440	3,520	3,630	3,740	3,850	3,970	3,970
TB10		Socata TB-10	Dry Ops	2,830	2,890	2,930	2,970	3,040	3,130	3,230	3,330	3,430	3,430
			Wet Ops	3,580	3,660	3,710	3,770	3,850	3,970	4,090	4,210	4,340	4,340
TB20		Socata TB-20	Dry Ops	3,380	3,450	3,500	3,550	3,630	3,740	3,860	3,970	4,100	4,100
			Wet Ops	4,280	4,370	4,430	4,500	4,600	4,740	4,890	5,040	5,190	5,190
TB21		Socata TB-21 Trinidad	Dry Ops	3,380	3,450	3,500	3,550	3,630	3,740	3,860	3,970	4,100	4,100
			Wet Ops	4,280	4,370	4,430	4,500	4,600	4,740	4,890	5,040	5,190	5,190
TB9		Socata TB9 (STB9)	Dry Ops	2,580	2,630	2,670	2,710	2,780	2,860	2,950	3,040	3,130	3,130
			Wet Ops	3,270	3,340	3,390	3,440	3,520	3,620	3,730	3,850	3,970	3,970
TBM2		Socata TB-200	Dry Ops	2,760	2,820	2,860	2,910	2,970	3,060	3,160	3,250	3,350	3,350
			Wet Ops	3,500	3,580	3,630	3,680	3,770	3,880	4,000	4,120	4,250	4,250
TS60		Aero Star	Dry Ops	3,930	4,010	4,070	4,140	4,230	4,360	4,490	4,630	4,770	4,770
			Wet Ops	4,980	5,090	5,160	5,240	5,360	5,520	5,690	5,860	6,040	6,040
VC10	VC10	VC-10-1150 (BAC)	Dry Ops	7,150	7,300	7,400	7,520	7,690	7,920	8,160	8,410	8,670	8,670
			Wet Ops	9,060	9,250	9,380	9,530	9,750	10,040	10,340	10,660	10,990	10,990
WSW		Westwind III	Dry Ops	2,250	2,300	2,330	2,360	2,420	2,490	2,570	2,650	2,730	2,730
			Wet Ops	2,850	2,910	2,950	3,000	3,060	3,160	3,250	3,350	3,450	3,450
WW23		1123 Westwind	Dry Ops	5,240	5,350	5,430	5,510	5,640	5,810	5,980	6,170	6,360	6,360
			Wet Ops	6,640	6,780	6,880	6,990	7,140	7,360	7,580	7,810	8,050	8,050
WW24		1124 Westwind	Dry Ops	4,590	4,680	4,750	4,820	4,930	5,080	5,240	5,400	5,560	5,560
			Wet Ops	5,810	5,930	6,020	6,110	6,250	6,440	6,640	6,840	7,050	7,050
WW4A		1124A Westwind 2	Dry Ops	4,590	4,680	4,750	4,820	4,930	5,080	5,240	5,400	5,560	5,560
			Wet Ops	5,810	5,930	6,020	6,110	6,250	6,440	6,640	6,840	7,050	7,050
YS11		YS-11/A	Dry Ops	4,040	4,130	4,190	4,250	4,350	4,480	4,620	4,760	4,900	4,900
			Wet Ops	5,120	5,230	5,310	5,390	5,510	5,680	5,850	6,030	6,210	6,210

APPENDIX 2. SAMPLE LETTER OF AGREEMENT (LOA)

Sample
Letter of Agreement
between Federal Aviation Administration
and Metropolitan Airport Authority

PURPOSE. This Agreement delineates the responsibilities of the Federal Aviation Administration (FAA) and the Metropolitan Airport Authority (MAA) that are necessary for initiating and carrying out Land and Hold Short Operations (LAHSO) on specified runways at Metropolitan Airport.

BACKGROUND. LAHSO is an air traffic control procedure which permits the issuance of landing clearances to aircraft to land and hold short of an intersecting runway, taxiway, or other designated point on the runway. It is a procedure designed to increase airport capacity and to more efficiently move aircraft within the terminal airspace and on the airport surface.

APPROVED LAHSO RUNWAYS/LOCATIONS. The following runway hold short locations are approved for conducting LAHSO at Metropolitan Airport:

Runway	Location	Designation
10L	Prior to Rwy 15/33 intersection	Day, Dry
10R	Prior to Rwy 15/33 intersection	Day, Night, Day/Wet
10R	Prior to Taxiway B1 intersection	Day, Night, Day/Wet
15R	Prior to Rwy 10R/28L intersection	Day, Dry
15L	Designated Point "HS-1" depicted on Attachment "A"	Day, Dry

RESPONSIBILITIES OF MAA. In order to conduct LAHSO at Metropolitan Airport, the MAA agrees to be responsible for the following actions:

1. Installing LAHSO runway markings and signs at all of the above specified locations in accordance with FAA AC 150/5340-1 and AC 150/5340-18.

2. Providing FAA with distance measurements from the landing runway threshold to the LAHSO runway marking at each specified LAHSO location.

3. Installing a LAHSO in-pavement lighting system at all LAHSO locations approved for night operations, for wet runway operations, and at all locations other than those at runway/runway intersections. The lighting system shall be designed and installed in accordance with FAA AC 150/5340-29.

4. Notifying the FAA air traffic control tower whenever runway markings, signs, and/or lighting systems are inoperative.

5. Taking friction measurements using FAA approved self-watering continuous friction measuring devices on all runways approved for LAHSO on wet runways. Measurements are to be taken in accordance with the procedures and frequency (Table 3-1) contained in FAA Advisory Circular 150/5320-12.

6. Notifying the FAA control tower whenever a runway approved for LAHSO-Wet has been reported as having standing water, ice, snow, slush, frost, or other contaminating substances; when friction measurements have not been undertaken in accordance with this agreement; or when the average friction value of any 500 foot runway segment used for LAHSO wet operations falls below the recommended minimum friction level and the average friction values of adjacent 500-foot segments fall below the maintenance planning friction level.

RESPONSIBILITIES OF FAA AIR TRAFFIC CONTROL. In conducting LAHSO at Metropolitan Airport, the FAA shall be responsible for the following:

1. Publishing a list of runways at Metropolitan Airport that are approved for LAHSO, together with the available landing distance for each hold-short location.

2. Terminating LAHSO on any approved runway location whenever MAA reports that signs and markings are not installed or are not in accordance with this order.

3. Terminating LAHSO during wet conditions whenever MAA reports: that LAHSO lights are not installed or are inoperable; that the runway has standing water, ice, slush, snow, or contaminated substance; that friction measurements have not been undertaken in accordance with agreed schedule; or that friction values are below minimums specified in this order.

4. Terminating LAHSO at any location when, in the judgment of the Air Traffic Manager, conditions are such that an unsafe operation may result.

5. Issuing appropriate NOTAM's relating to LAHSO.

Manager, John M. Doe
Metropolitan Airport Tower
Federal Aviation Administration

Manager, Mary K. Smith
Metropolitan Airport Authority