

06 Minimum Altitudes (according to FAR 91.119)

- Except when necessary for takeoff and landing, no person may operate an aircraft below an altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface.
- Over congested areas. Over any congested area of a city, town, or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft.
- Over other than congested areas. An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer to 500 feet to any person, vessel, vehicle or structure.

In addition, no KLS flight will operate below 500' AGL, except when training an EFATO, PFL or a precautionary landing according to the Training Manual (syllabus) in a dual flight and in a sparsely populated area.

07 Aircraft lights

All aircraft starting engines in darkness or low visibility conditions must, at a minimum, have navigation lights illuminated.

During daylight hours, if the aircraft is NOT equipped with a beacon/ fin strobe, the strobe lights shall be switched on prior to engine start and off after shut down.

During night hours, use of strobe lights is Subject to Captain's Discretion.

08 RTF initial contact solo

All solo students will inform any ATC agency on initial contact that they are a student pilot.

Example:

"Falcon Tower, N4188E, STUDENT PILOT, Over Apache Junction etc. etc."

09 First solo flights

During first solo flights, anyone who intentionally approaches within 10 meters of the aircraft while the engine is running and/or the beacon lights/strobe lights are on for startup/shutdown, will be met with disciplinary actions. The 10 meter distance is defined by 10 meters from any point on the aircraft. No cars are permitted on the apron. All observers shall wear high-visibility safety vests. Transport of the soloist in the trunk of the car will be met with extreme sanctions.

On the first solo flight, no touch and goes are permitted. Only three full stop taxi backs are allowed.

Solo touch and goes are permitted on subsequent flights, providing the runway length is 5000 feet or more and the width of the runway is at least 100 feet. Exceptions to this rule may be given in OM appendix 5.7, Section 3.2.4.

1.11.1 Air Safety Report

01 General

After every dual flight, it is strongly recommended for the instructor and the student to discuss, during the debriefing phase, whether there has been a situation where the filing of an ASR is necessary. If such a situation has occurred, the instructor shall check the ASR before it is submitted, and may add any required details. If the decision is made to file an ASR, note this in the comments portion of the syllabus.

After every solo flight it is required that the student shall decide if a situation has occurred where the filing of an ASR is necessary. The student will take the decision to file the ASR themselves, but shall inform their instructor that they are submitting the ASR, and allow the instructor to see and comment on the ASR. In the absence of the instructor, the TM SE or his/her deputy must be informed. If the decision is made to file an ASR, note this in the comments portion of the syllabus.

C Fuelling with passengers and/or crew on board

Fuelling of aircraft with passengers and/or crew on board is not allowed.

3.2.3 Minimum safe altitude

In the operation of KLM flight academy the following altitudes are distinguished:

- 1) Minimum obstacle clearance altitude (MOCA)
- 2) Minimum off-route altitude (MORA)
- 3) Minimum enroute altitude (MEA)
- 4) Minimum safe (sector) altitude (MSA)

These altitudes are generally only used in the IFR operation. For VFR the general legal requirements for minimum altitudes apply. It is emphasised that the legal requirement for built-up areas of minimum 1000 ft over the highest obstacle does not relieve the PIC for his responsibility with relation to maintaining a safe glide distance from unobstructed terrain. This is to ensure a successful completion of a forced landing in case of an engine failure over built-up areas.

01 Minimum obstacle clearance altitude (MOCA)

NOTE:

Only applicable to IFR flights.

A Definition MOCA

The lowest published true altitude in effect between radio fixes on VOR airways, off-airway routes, or route segments which meets obstacle clearance requirements for the entire route segment and in the USA assures acceptable navigation signal coverage only within 22 nautical miles of a VOR.

B Limits of intent

The MOCA is a true altitude above MSL. It does not take into account the means of measuring aircraft altitude. If a pressure altimeter is used for this purpose, the reading must be corrected for temperature and pressure datum.

Pilots should realise that the true altitude decreases with 30 ft for each hPa that the QNH at the terrain over which the aircraft is flying is lower than the standard setting of 1013,2 hPa. Furthermore: when the OAT is "below standard" the true altitude decreases 4 feet/°C/1000 ft. If in the opinion of the PIC the obstacle clearance should be increased because of extreme low temperatures and/or barometric pressures, he should not hesitate to do so.

Summary:

For each °C $\frac{\text{ABOVE}}{\text{BELOW}}$ St. Temp.: $\frac{\text{ADD}}{\text{SUBTRACT}}$ 4 ft for each 1000 ft. of altitude from altimeter reading to find true altitude.

For each hPa $\frac{\text{ABOVE}}{\text{BELOW}}$ 1013 hPa $\frac{\text{ADD}}{\text{SUBTRACT}}$ 30 ft from altimeter reading, to find true altitude.

The MOCA does not take into account ATC requirement nor does it meet restriction for danger or restricted areas, nor the ability of the aircraft to maintain the specified altitude under all or any circumstances. All these restrictions must be evaluated separately when passing the lowest usable cruising level.

C Application

A flight shall not be flown below the MOCA applicable to the route segment, except when;

- adequate visual reference can be maintained;
- the aircraft's position is within an area where lower minimum altitudes are applicable; and radar vectoring is provided by an ATS unit; for descent under radar control, refer to OM 3.2.3-055 RADAR service

A General safety precautions

- Persons not concerned with the handling of the aircraft shall not be admitted in the fuelling zone, which normally extends at least three meters from the perimeter, as defined by the aircraft's wing and engines and the fuel truck. Under certain conditions an exception can be made for escorted passengers.
- The fuel truck shall be so parked that driving away in forward direction is possible at all times and other equipment shall not block the driveway.
- An electrical power unit connected to the aircraft must be located as far as possible from the Fuelling zone.
- Fuelling operation during thunderstorm is prohibited.

B Actions required upon abundant spilling

When abundant spilling of fuel occurs, the following safety measures have to be taken:

- Fuelling operations must be stopped at once;
- ground power unit and other engines or electrical motors of equipment in the fuelling zone must be shut down and all further electrical switches avoided;
- handling personnel must leave the fuelling zone;
- the airport fire department must be notified immediately;
- if considered necessary, the aircraft must be pushed or towed to a safer place.

C Fuelling with passengers and/or crew on board

Fuelling of aircraft with passengers and/or crew on board is not allowed.

3.2.4 Destination list

Navigation training flights shall be planned to destinations listed below: The following airports are approved for all training flights. The KLS TM-SE shall authorize flights to any airport not listed in the Destination Airport List below in writing with reason. All airports need at least:

- 1) possibilities for flight preparation.
- 2) possibility of meteo briefing.

During the months of April – October it is not allowed to make a crew switch (shutting down the engine) at an airport where there is no air conditioned FBO or maintenance available.

AIRPORT NAME	CODE	CITY	FBO	PHONE	DCT KFFZ (NM)
Meadows Field	KBFL	Bakersfield	Mercury Air Centers	661-391-4900	381
Blythe Airport	KBLH	Blythe (CA)	Wolfe Enterprise	760-922-6125	150
Buckeye Municipal	KBXK	Buckeye	Town of Buckeye	623-327-1812	48
Bullhead International	KIFP	Bullhead City	SunWestern Flyers	928-754-3020	173
Mc Clennan-Palomar	KCRQ	Carlsbad (CA)	Western Flight Inc	760-438-6800	279
Casa Grande Municipal	KCGZ	Casa Grande	Casa Grande Municipal	520-421-8625	30
Chandler Municipal ⁵	KCHD	Chandler	Chandler Air Service	480-963-6420	12
Chino	KCNO	Chino	Championship Aviation	909-614-1933	296
Coolidge Municipal ¹	P08	Coolidge	International Air Response	520-723-5354	34
Cottonwood Airport ³	P52	Cottonwood	Cottonwood Air Service	928-634-5635	77
Eloy Municipal ¹	E60	Eloy	Eloy Municipal Airport	520-466-4721	39
Flagstaff Pulliam ³	KFLG	Flagstaff	Wiseman Aviation	928-779-9585	100
Sierra Vista Municipal ³	KFHU	Fort Huachuca Sierra Vista	Sierra Vista Municipal	520-452-7091	132
Fresno Yosemite Int'l	KFAT	Fresno	Mercury Air Center	559-454-7501	439
Gilla Bend Municipal	E63	Gila Bend	-	-	56
Glendale Municipal	KGEU	Glendale	Glendale Aviation	623-872-1368	28
Phoenix Goodyear	KGYR	Goodyear	City of Phoenix	623-932-4550	32
Grand Canyon National Park ³	KGCN	Grand Canyon	Grand Canyon Airlines	928-638-2463	140
Henderson Executive Airport	KHND	Henderson	Henderson Executive Airport	702-261-4806	226
Holbrook Municipal ^{1,3}	P14	Holbrook	Holbrook Municipal Airport	928-241-0288	118
Kingman Airport ³	KIGM	Kingman	Kingman Aero Services	928-757-1335	153
Lake Havasu City	KHII	Lake Havasu City	Sun Western Flyers	928-764-8000	146
Mc Carran International ⁴	KLAS	Las Vegas	Atlantic Aviation	702-246-7794	230
North Las Vegas	KVGT	Las Vegas	NV FBO North Las Vegas	702-261-3803	238
Long Beach/Daugherty Field	KLGB	Long Beach	Signature	562-997-0700	312
Pinal Airpark ²	KMZJ	Marana	Evergreen Air Center	520-682-4181	60
Merced Municipal	KMCE	Merced	-	-	486
Falcon Field ¹	KFFZ	Mesa	Falcon Executive Aviation	480-832-0704	-
Monterey Peninsula	KMRY	Monterey	Million Air Monterey	831-373-4151	530
Napa County	KAPC	Napa	Bridgeford Flying Services	707-224-0887	586
Nogales International ³	KOLS	Nogales	Tiffin Aviation Services	520-761-7879	130
Metropolitan Oakland Int'l	KOAK	Oakland	Kaiser Air	510-569-9622	571
Ontario International	KONT	Ontario	Mercury	909-390-2370	295
Page Municipal ^{1,3}	KPGA	Page	American Aviation	928-608-1060	208
Palm Springs International	KPSP	Palm Springs (CA)	Signature Flight Support	760-327-1201	239
Avi Suquilla Airport	P20	Parker	Crit Air	928-669-2168	133
Payson Airport ³	KPAN	Payson	Payson Aviation	928-474-2005	51
Deer Valley	KDVT	Phoenix	Westwind Aviation	623-869-0866	22
Williams Gateway	KIWA	Phoenix	Gateway Aviation Services	480-988-7700	9
Phoenix Regional ²	A39	Phoenix	-	-	29
Phoenix Sky Harbor Int'l	KPHX	Phoenix	Swift Aviation	602-273-3770	14
Ernest E. Love Field ³	KPRC	Prescott	City of Prescott	866-700-7040	79
Riverside Municipal	KRAL	Riverside	Zenith	951-689-1160	286
Sacramento Executive	KSAC	Sacramento	Sacramento Jet Center	916-428-8292	562
Safford Regional ³	KSAD	Safford	Safford Aviation	928-428-7670	111
Salinas Municipal	KSNS	Salinas	Air Trails	800-680-5944	521
San Diego International	KSAN	San Diego	Jimsair	619-298-7704	277
Montgomery Field	KMYF	San Diego	Gibbs	858-277-0310	274
San Luis County Regional	KSBP	San Luis Obispo	San Luis Jet Center	805-782-9722	454
John Wayne Airport-Orange County	KSNA	Santa Ana	Signature	949-263-5800	307
Santa Barbara Municipal	KSBA	Santa Barbara	Signature Flight Support	805-967-5608	407
Santa Maria Public	KSMX	Santa Maria	Sunwest Aviation	805-928-8856	441
Santa Monica Municipal	KSMO	Santa Monica	Supermarine	310-396-6770	337
Scottsdale Airport	KSDL	Scottsdale	Corporate Jets	480-948-2400	13
Sedona Airport ²	KSEZ	Sedona	Red Rock Aviation	928-204-1292	83
Show Low Regional ^{1,3}	KSOW	Show Low	Show Low Municipal Airport	928-532-4190	98
Town of Springerville Municipal ³	D68	Springerville	Kestrel Aviation	928-333-5746	127
Taylor Airport ³	KTYL	Taylor	Ray's Aircraft Service	928-536-7771	100
Marana Regional ¹	KAVQ	Tucson	Tucson Aeroservice Center	520-682-2999	86
Ryan Field	KRYN	Tucson	Tucson Airport Authority	520-883-2921	83
Tucson International	KTUS	Tucson	Tucson Executive Terminal	520-573-8128	89
Van Nuys	KVNY	Van Nuys	Skytrails Aviation	818-901-9550	339
Southern California Logistics	KVCV	Victorville	Wordt Service West	760-246-7794	289
Wickenburg Municipal	E25	Wickenburg	Flying M Air	928-684-5690	61
Douglas-Bisbee International Airport	KDUG	Willcox	Cochise County Aviation	520-364-2771	161
Cochise County ³	P33	Willcox	Walden Aviation	520-384-2908	117
Yuma International	KYUM	Yuma	Bet Ko Air	928-726-1116	152

¹ Denotes airport with runway less than 4000 feet (also if one of several runways is less than 4000', check AFD)

² Denotes airport not allowed as destination for solo flights.

³ High Altitude airport, KLS TM-SE authorization mandatory for solo flights.

⁴ Not authorized for VFR flights.

⁵ Solo operations only permitted on RWY 04R/22L.