



INSTRUMENT FLIGHT RULES

1. Introduction

Instrument flight rules (IFR) are a set of regulations under which a pilot operates under conditions in which flight by outside visual reference is not safe, or flight by reference to instruments in the flight deck and navigation is accomplished by reference to electronic signals.

A pilot may elect to fly in accordance with instrument flight rules in visual meteorological conditions or may be required to do so by the appropriate ATS authority.

2. Requirement

Aircraft shall be equipped with suitable instruments and with navigation equipment appropriate to the route to be flown.

In controlled airspace, IFR flight shall follow the rules or instructions listed below:

- Air traffic control clearance respect
- Adherence to the flight plan
- Position reports when needed
- Two way communication as necessary with the appropriate air traffic control unit

2.1. Inside air traffic controlled areas

An air traffic control clearance shall be obtained prior to operating a controlled flight or a portion of a flight as a controlled flight when operating in a controlled airspace.

An IFR flight shall maintain continuous voice communication and establish two-way communication with the appropriate air traffic control unit.

Note that in IVAO, the pilot must use text mode when the voice communication is not possible.

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2.2. Outside air traffic controlled areas

An IFR flight operating outside controlled airspace shall maintain an air-ground voice communication watch on the appropriate communication channel and establish two-way communication, as necessary, with the air traffic services unit providing flight information service in this area.

In IVAO, some air traffic control positions can provide flight information service outside their controlled areas in an airspace published on charts.

In IVAO, the position with suffix FSS is a non-controlled position which can provide flight information service in his responsibility area.

SELCAL (in oceanic area use), or similar automatic signalling devices, satisfies the requirement to maintain an air-ground voice communication watch.

3. IFR Level restrictions

3.1. Minimal altitude

All IFR flight shall be flown except for take-off, landing or except by permission from the appropriate authority:

- At a level which is not below the minimum flight altitude established by the local regulations (published on charts).
- At a level which is a least 600m (2000ft) above the highest obstacle located within 8km of the estimated position of the aircraft, in mountainous areas, when no minimum flight altitude has been established
- At a level which is a least 300m (1000ft) above the highest obstacle located within 8km of the estimated position of the aircraft, elsewhere than the two first items, when no minimum flight altitude has been established

Note that there is no maximal altitude in IFR flight. The maximum controlled flight level is usually FL660.

3.2. Cruising levels

An IFR flight operating in cruising flight in controlled airspace shall be flown at a cruising level specified below:

- **IFR** flights use altitudes ending with the number 000: 5000ft, 6000ft...
- **IFR** flights use flight levels ending with the number 0: FL 50, FL 60, ...

The cruise altitude (flight level) for IFR flight must be chosen using these assigned rules and must follow the semicircular rules depending on the heading of the aircraft.

Check the IFR cruise altitude documentation in order to have the full table with explanations including semi-circular rules.

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4. Change Flight Rules to VFR

When an aircraft operating under the instrument flight rules is flown in or encounters visual meteorological conditions it shall not cancel its IFR flight unless it is anticipated, and intended, that the flight will be continued for a reasonable period of time in uninterrupted visual meteorological conditions.

An aircraft electing to change the conduct of its flight from compliance with the instrument flight rules to compliance with the visual flight rules shall:

- notify the appropriate air traffic services unit specifically that the IFR flight is cancelled
- communicate thereto the changes to be made to its current flight plan

5. Visual Meteorological Conditions (VMC)

An IFR flight is mandatory under conditions of visibility and distance from clouds below the minima presented in the table below:

Altitude band	Airspace class	Minimum flight visibility	Minimum distance from clouds
At and above 3050m (10000ft) AMSL	A, B, C, D, E, F, G	8 km	1500 m horizontally 300m (1000ft) vertically
Below 3050m (10000ft) AMSL And above, 900m (3000ft) AMSL <u>or</u> 300m (1000ft) above terrain, whichever is the <u>higher</u>	A, B, C, D, E, F, G	5 km	1500 m horizontally 300m (1000ft) vertically
At or below 900m (3000ft) AMSL <u>or</u> 300m (1000ft) above terrain, whichever is the <u>higher</u>	A, B, C, D, E	5 km	1500 m horizontally 300m (1000ft) vertically
	F, G	5 km (*)	Clear of cloud and with the surface in sight
Visual Meteorological Condition (VMC)			

When the height of the transition altitude is lower than 3050m (10000ft) AMSL, FL100 should be used.

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