

ATC Reporting Requirements**(MARVELOUS VFR C5)**

- Missed approach
- Airspeed ± 10 knots or 5% change of filed TAS
- Reaching a holding fix (time and altitude)
- VFR on top altitude changes
- ETA change of ± 3 minutes (nonradar)
- Leaving a holding fix
- Outer marker inbound (nonradar)
- Unforecast weather*
- Safety of flight*
- Vacating an altitude or flight level
- Final approach fix inbound (nonradar)
- Radio or navigation failure
- Compulsory reporting points* (nonradar)
- 500 FPM climb or descent rate not obtainable

Position Reporting Items

- Identification
- Position
- Time
- Altitude or flight level
- Type of flight plan (not required when made directly to approach control)
- ETA and name of next reporting point
- The name only of the next succeeding reporting point along the route of flight
- Pertinent remarks

Lost Communication Procedures in IMC**AVE F (Routing: In Order of Priority)**

- Assigned
- Vectored
- Expected
- Filed

MEA (Altitude: Fly the Highest)

- Minimum en route altitude
- Expected
- Assigned

IFR Flight Clearance**CRAFTS**

- Clearance
- Routing
- Altitude
- Frequency
- Times
- Squawk code

Planned Descent Point Calculation

To calculate the PDP in miles, subtract the resulting distance from end of the runway to determine the PDP.

$$\text{PDP} = \text{HAT} / 300$$

To calculate the PDP in minutes and seconds, subtract the resulting time from the time required to fly the approach.

$$\text{PDP} = \text{Time to Fly the Approach} - (\text{HAT} / 10)$$

Flight Plan Information Required

- Aircraft identification
- Type of the aircraft
- Full name and address of the PIC
- Point of departure
- Time of departure
- Proposed route
- Cruising altitude (or flight level)
- True airspeed at cruise altitude
- Point of first intended landing
- Arrival time
- Fuel on board (in hours)
- Number of persons in the aircraft
- Any other information the PIC believes is necessary for ATC purposes
- Alternate airport (if required)

* = required by 14 CFR 91.183 for IFR

Fuel Requirements

Enough fuel to fly to the first airport of intended landing, then to the alternate airport (if required), then for an additional 45 minutes at normal cruising speed.

Alternate Airport Requirements

An alternate airport is required unless weather forecasts indicate for at least 1 hour before and for 1 hour after the ETA, the ceiling will be at least 2,000' and the visibility will be at least 3 SM.

An alternate airport cannot be used on a flight plan unless weather forecasts indicate the following weather minima are present at the alternate airport at the ETA:

- For a precision approach: Ceiling 600' and visibility 2 SM.
- For a nonprecision approach: Ceiling 800' and visibility 2 SM.
- No instrument approach at the alternate: Ceiling and visibility must allow descent from MEA, and approach and landing under basic VFR.

Pilot Report (PIREP) Format

- Location
- Time
- Altitude
- Aircraft Type
- Sky Cover
- Flight Visibility and Weather
- Temperature
- Wind
- Turbulence

Approach Categories

- **A:** Less than 91 knots
- **B:** 91 knots or more but less than 121 knots
- **C:** 121 knots or more but less than 141 knots
- **D:** 141 knots or more but less than 166 knots
- **E:** 166 knots or more

Visual Approach Requirements

The pilot must have the airport or a preceding aircraft to be followed in sight. The reported ground visibility must be at least 1 SM and the ceiling must be at least 1,000' AGL. Pilots must remain clear of clouds. Obstruction clearance is the pilot's responsibility.

Contact Approach Requirements

Must be initiated by the pilot. The reported ground visibility must be at least 1 SM. Pilots must remain clear of clouds. The airport must have a published IAP. Obstruction clearance is the pilot's responsibility.

IFR Nearing Destination

WIRETAP

- Weather and NOTAMs
- Instruments set
- Radios tuned and set
- Elevation (airport height and MSA)
- Talk to ATC
- Altitudes (DA/DH or MDA, VDP)
- Procedure for missed approach

IFR Approach Procedures

The 5 T's

- Turn to the proper heading
- Time (begin timing for the segment)
- Twist OBS knob
- Throttle adjustment
- Talk (make a radio call)

Compass Errors

ANDS & UNOS

- Accelerate North, Decelerate South
- Undershoot North, Overshoot South

Visibility Requirements and Types

- Weather reports and forecasts are generated using ground visibility in SM.
- Except for takeoff and landing, SVFR and VFR weather minimums are based on flight visibility in SM.
- For takeoff and landing, SVFR and VFR weather minimums are based on ground visibility, if reported, otherwise flight visibility in SM.
- Requirements for descending below the MDA or DH on an instrument approach are based on flight visibility in SM.
- In the U.S., instrument approach charts provide visibility requirements in SM and RVR in feet.

RVR to Flight Visibility in Statute Miles

- 6000 RVR = 1 1/4 SM
- 5000 RVR = 1 SM
- 4000 RVR = 3/4 SM
- 2400 RVR = 1/2 SM
- 1600 RVR = 1/4 SM

Cruising Altitudes

Below 18,000' MSL and on a magnetic course of:

- 000° to 179°: Odd thousand foot altitudes
- 180° to 359°: Even thousand foot altitudes

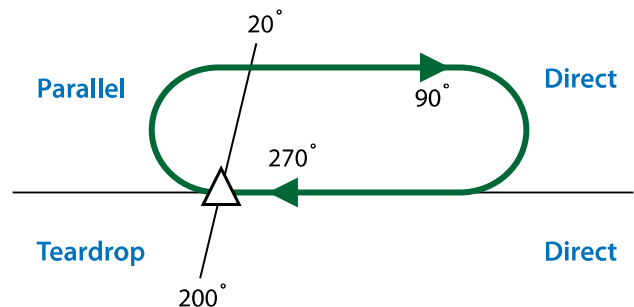
VOR Receiver Checks (Every 30 Days)

- VOR Test Facility (VOT): ±4°
- Certified radio repair station: ±4°
- Certified ground check points: ±4°
- Certified airborne check points: ±6°
- Dual VOR cross-check: ±4°

VOR Check Record Requirements

- Date
- Place
- Error
- Signature

Holding Pattern Entries



Maximum Holding Speeds

- 6,000' and below: 200 knots
- 6,000' to 14,000': 230 knots
- 14,001' and above: 265 knots