

# IFR Precision Flight Event Rules

[As of 07/01/08]

Current year rule changes are in **red bold print!**

## II. Flying Event Rules

### E. IFR Precision Flight Event

1. Each team may enter one contestant in the IFR Precision Flight Event. Contestants must be instrument rated and must meet the IFR recency of experience requirements as specified in Part 61 of the FAR's.
2. The Chief Judge will approve conduct of this event based on prevailing conditions.
3. Contestants shall fly an IFR check flight in VMC (Visual Meteorological Conditions) under simulated instrument conditions, maintaining visual contact with the ground at all times, and be evaluated on the basis of the precision with which the instrument pattern is flown. This check flight will not exceed two hours duration and may cover any of the following segments:
  - a. A ground phase, including an IFR clearance test.
  - b. A flight phase, including:
    - (1) An instrument departure.
    - (2) A demonstration of basic, IFR maneuvers—the execution of climbs, descents, and turns; changes in airspeed and airplane configuration; recovery from unusual attitudes; and use of the clock.
    - (3) A holding pattern at either a NAVAID or at an intersection.
    - (4) A non-precision approach—with procedure turn; inbound/outbound tracking of a VOR radial; and descent to MDA.
    - (5) A missed approach.

Contestants may be required to demonstrate some of these maneuvers with partial panel. The event judge shall specify which radio aids and reference instruments may be used during any segment of the check flight.

4. Contestant Aircraft: Each contestant may use his/her own aircraft or one provided by the event sponsor. In either case, the aircraft must:
  - a. Be a 4-place airplane so that a safety observer can ride along.
  - b. Meet all FAA requirements for operation in instrument conditions.
  - c. Have at least one VOR receiver.
  - d. Meet any minimum performance requirements imposed by the event judge to insure air safety
  - e. Have dual controls and be configured so that the check pilot can monitor and evaluate the flight and navigation instruments.

In no event shall a contestant be allowed to use an autopilot, a slaved ADF, a pictorial navigation indicator, an RMI, or and RNAV during the contest.

Any questions about equipment will be resolved by the Chief Judge before the flight.

5. Each contestant shall furnish an IFR hood that effectively restricts outside visual reference for the pilot and does not unduly restrict visibility for the check pilot. The event judge shall have final authority to determine hood suitability.
6. All contestants shall fly the same instrument navigation pattern. Contestants may have up to two hours to review the flight plan prior to their scheduled departure. Contestants are expected to furnish any logs, knee boards, approach plate holders, or other aids they may want to use during the check flight.
7. Each contestant will be evaluated on the basis of following specified procedures and on how accurately airspeed, altitude, heading, course, and time are maintained as appropriate for each segment of the check flight. Deviations will result in the assessment of penalty points or in disqualification. The minimum acceptable precision expected of contestants is that required to pass an instrument check ride (see the FAA Instrument Practical Test Standards).
8. Scoring: (Scoring for each phase of the contest shall be as follows)
  - a. The ground phase:
    - (1) IFR CLEARANCE: Up to 200 points maximum penalty based on the percentage error for incorrectly reading back an IFR clearance—i.e., 3 elements missed out of a 10 element clearance message, 30 percent error = 60 points penalty, and an additional penalty (50 points) each time the clearance is repeated at the request of the contestant.
  - b. The air phase: The following deviations shall result in a 20 point penalty for each occurrence exceeding 5 seconds duration during the check flight:
    - (1) Failure to maintain heading (when appropriate) within  $\pm 10$  degrees (20 points per 10 degrees).
    - (2) Deviations of greater than  $\pm 100$  feet from assigned or published altitude (20 points per 100 feet).
    - (3) Failure to execute turns at standard rate within a tolerance of  $\pm 5$  seconds for each 90 degrees of turn.
    - (4) Failure to level off from a climb or descent within  $\pm 100$  feet of assigned altitude (20 points per 100 feet).

- (5) Failure to maintain specified airspeed in climb, descent, or an approach (20 points per knot).
- (6) Failure to begin or end legs on time (20 points per 10 seconds).

All of the above penalty values double after passing the station outbound on approach.

The following deviations shall result in a 50 point penalty for each occurrence exceeding 30 seconds during the check flight.

- (7) Failure to capture on track (except during approach) a prescribed radial of a VOR within  $\pm 5$  degrees of a prescribed bearing.
- (8) Failure to make any required position reports during the check flight. This includes position reports required by FAR's as well as those required by the judge. Required reporting points will be reviewed in the briefing.
- (9) Failure to operate avionics equipment properly.

A 100 point penalty will be assessed for the following deviations:

- (10) Any action deemed irregular by the check pilot but not necessarily so hazardous or unsafe as to be disqualifying. This would include such things as turns in an incorrect direction and flying of incorrect headings for a protracted length of time. The Judge's decision to apply this penalty will be strongly influenced by the length of time required for the contestant to discover his or her error.

The following actions shall result in disqualification:

- (11) Significant deviation from, or failure to execute, any portion of the assigned IFR flight pattern or ATC clearance (for example, incorrect frequency or OBS selection not caught within 30 seconds).
  - (12) Exceeding any clearance limit.
  - (13) Operating more than 100 feet below any published MEA, MSA, or approach segment altitude as appropriate to the leg being flown.
  - (14) Going below minimum descent altitude (MDA), or failing to execute a missed approach at the defined missed approach point (MAP).
  - (15) Reckless, hazardous, or unsafe flying, including loss of positive airplane control or any other maneuver that causes the airplane to enter an unusual attitude.
9. The contestant accumulating the least points from the combined score of the ground and air phases of the IFR Precision Flight Event shall be declared the winner.

**05/04/97 - Date of last change to this section**