

Skills USA Championship
Requirements

Aviation Flight Competition –
Advanced

Aviation Flight Competition –Advanced

PURPOSES

1. To help teachers promote enthusiasm for learning among their students.
2. To instill a sense of pride in students for doing a job well.
3. To help students develop self confidence through competitive events.
4. To recognize students who demonstrate excellence during regional and state competitions.

CLOTHING

Dress appropriate to occupation
Polo shirt or equivalent
Slacks, no jeans
No open toed shoes or flip-flops

Contest Overview

Contestants will compete at the Advanced level:

1. Advanced (Junior or Senior)

The contest will involve five (5) areas of competition:

1. Preflight
2. Pilot Tools Oral Exam
3. General Information Written Exam
4. Flight Planning
5. Flight Simulator

RULES OF COMPETITION

1. Contestants shall study the instructions prior to starting competition.
2. Contestants shall be judged by the criteria defined in each of the five contest areas.
3. Contestants shall not ask or accept help from judges, other contestants, or teachers during competition.
4. Contestants not dressed appropriately will have points deducted from their score.
5. Contestants shall not be allowed in the competition area after the judge has cleared them to leave.
6. You are to start and stop when the judge instructs you to do so.
7. Questions will be acknowledged, by the judge, by raising of your hand.

8. The judge can disqualify a participant for breaking these rules or any reason that warrants this action.
9. The judge has the final decision.
10. You are not to remove the tape or tags from items used in the contest.

PERSONNEL

1. Contest Co-Chairpersons
2. Eleven Judges

EQUIPMENT AND TOOLS

Furnished by Contestant:

1. Pen or Pencil
2. E6B Flight Computer (No electronic flight computers)
3. Non-programmable calculator

MATERIALS

Furnished by Contest Committee

1. Single engine aircraft for preflight
2. CPU, monitor, control yoke, rudder peddles with Microsoft Flight Sim
3. Aeronautical charts

JUDGING

1. Contestants shall be judged by the criteria defined in each of the five contest areas.
2. Judges are to score each team from a school as one unit.
3. Committee chair will discuss with the committee any points deducted for clothing.

Flight Planning

Students will have one hour to lay out their flight plan. Each team will be given their departure and destination airports. They may mark their charts for use in their cross-country flight. Flights should include checkpoints every five minutes. Each of the three team members will fly one leg of the plan.

Ground Trainer Event Rules

1. A departure and arrival airport will be assigned for the flight plan to all teams at the competition. The contestants, at their own discretion, will be allowed to add individual markings or notations to the copy provided by the judge for use in the trainer during competition.

2. Scoring:

Teams will have one hour to complete their flight plan. Scores will be based on a total of 100 points. Points will be assigned as follows:

	Points
Takeoff	
Rotation Speed: _____ knots (+10/-5 knots)	8, 4 or 0
Climbout Speed: _____ knots (Vy +10/-5 knots)	8, 4 or 0
Cruise	
Altitude Hold: _____ feet (+/- 200 feet)	8, 4 or 0
Heading Hold: _____ degrees (+/- 15 degrees)	8, 4 or 0
Speed Control: _____ knots (+/- 10 knots)	8, 4 or 0
Adequate pitch and power control? Yes or No	2 or 0
Situational awareness (Verified the airplane's position within 3 NM of the planned route?)	4, 2 or 0
Arrival and Pattern	
Prepared the approach ahead of time? Yes or No	2 or 0
Complied with proper traffic pattern procedures? Yes or No	2 or 0
Prepared for landing ahead of time? Yes or No	2 or 0
Traffic pattern altitude: _____ feet (+/- 100 feet)	8, 4 or 0
Landing	
Approach Speed: _____ knots (+/- 10 knots)	8, 4 or 0
Approach Angle: Approximately three degrees? Yes or No	2 or 0
Aligned with the runway? Yes or No	2 or 0
Safe touchdown? Yes or No	2 or 0
Safe stop? Yes or No	2 or 0
Other	
Was the pilot safe throughout the flight? Yes or No	2 or 0
Did the pilot exhibit good decision making skills? Yes or No	2 or 0
Did the team work well together to achieve the flight objectives? Yes or No	2 or 0
Was the flight coordinated and stable? Yes or No	2 or 0

Aircraft Preflight Inspection Event Rules

1. A light, single engine general aviation airplane shall be "bugged" with at least 10 discrepancies. These discrepancies must be of such a nature that it is reasonable to expect them to be detected by a competent private pilot during the course of a normal preflight inspection. The discrepancy list will be reviewed by both the preflight judge and committee chair prior to the start of the event.
2. The airplane must not be accessible to spectators and other contestants.
3. Contestants shall be given not more than 15 minutes to perform the inspection.
4. Scoring:
 - a. Each contestant will earn one point for each discrepancy detected from the discrepancy list.
 - b. An additional point can be awarded for each existing discrepancy discovered by the contestant that is not listed on the judge's discrepancy list. One point will be subtracted for each call made that is not an existing discrepancy. The preflight judge will, before the scores are officially submitted, review with the committee all such point adjustments for calls made on discrepancies not on the original list
 - c. Preflight technique will be scored in categories of Method and Thoroughness as poor, average, or excellent in the points range of 1-5, (5 being the most points in each category with a maximum of 10 points possible). [Example: "Did not drain fuel", "Did not check fuel quantity", "Failed to follow logical inspection sequence", etc.] Running, rough handling of the control surfaces, or erratic and abnormal patterns of flow shall result in a loss of points from the total 10 technique points available.
 - d. In the event of a tie, the contestant taking the least amount of time to complete the inspection shall be declared the winner.
 - e. Each contestant immediately after completing their individual preflight inspection shall have an additional two (2) minutes to express comments and/or concerns to the preflight judge.
 - f. High score wins.

Preflight Discrepancy Sheet

List Preflight Discrepancies found on the aircraft.

Preflight Discrepancies	
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Contestant Number # _____

Contestant # _____

Judge _____

Start Time _____ End Time _____

Number of Discrepancies Found (0- 10 points)	
Number of Discrepancies Found not listed on judges sheet. (1 Point for each identified)	
Preflight Technique – Method (0-10 points)	
Preflight Technique – Thoroughness (0-10 points)	
Deduction(s) – for identifying a non-Discrepancy (1 point for each identified)	
Total	

Observations during contestant preflight:

Notes from 2 minute time with contestant:

Oral Test

1. A thirty (30) minute oral review will be administrated
2. Points will be awarded for correct answers
3. This test will be used to determine the winner for an overall tie in all contest areas.

Written Test

Students will have one hour to complete the written test. Questions will be randomly selected from the FAA online private pilot written exam.