

# **PRIVATE PILOT**

## **I. AREA OF OPERATION: PREFLIGHT PREPARATION**

### **E. TASK: NATIONAL AIRSPACE SYSTEM**

#### **OBJECTIVE**

To determine that the applicant exhibits knowledge of the elements related to the National Airspace System by explaining:

1. Basic VFR weather minimums – for all classes of airspace.
2. Airspace classes – their operating rules, pilot certification, and airplane equipment requirements for the following:
  - a. Class A.
  - b. Class B.
  - c. Class C.
  - d. Class D.
  - e. Class E.
  - f. Class G.
3. Special use and other airspace areas.

#### **ELEMENTS**

1. "Basic VFR weather": Ceilings > 3000', visibility > 5 sm.
2. "Marginal VFR weather": 1000' < ceilings < 3000', 3 sm < visibility < 5 sm.
3. "IFR weather": Ceilings < 1000', visibility < 3 sm.
4. "Special VFR weather": Clear of clouds. Visibility > 1 sm.
5. Class A airspace:
  - a. Airspace from 18,000' MSL up to and including FL600 (60,000' MSL).
  - b. All operations conducted under instrument flight rules (IFR).
  - c. Entry requirement: ATC clearance.
  - d. Equipment required: IFR equipped.
  - e. Minimum pilot qualifications: Instrument Rating.
6. Class B airspace:
  - a. Airspace from the surface up to and including 10,000' AGL.
  - b. Surrounds the nation's busiest airports.
  - c. Configuration is individually tailored with two or more layers, usually resembling an upside-down wedding cake.
  - d. Basic VFR visibility minimum: 3 sm.
  - e. Basic VFR distance from cloud minimums: Clear of clouds.
  - f. Entry requirement: ATC clearance.
  - g. Equipment required: Two-way radio, transponder with altitude reporting capability.
  - h. Minimum pilot qualifications: Private Pilot certificate (or student pilot with training and endorsement).
7. Class C airspace:
  - a. Airspace from the surface up to and including 4000' AGL.
  - b. Surrounds large airports with operational control towers.
  - c. Configuration includes a 5-nm radius core from the surface to 4000' AGL and a 10-nm shelf from 1200' AGL to 4000' AGL and a 20-nm radius outer area from the surface to 4000' AGL.
  - d. Basic VFR visibility minimum: 3 sm.
  - e. Basic VFR distance from cloud minimums: 500' below, 1000' above, 2000' horizontal.
  - f. Entry requirement: Two-way radio communication prior to entry.
  - g. Equipment required: Two-way radio, transponder with altitude reporting capability.
  - h. Minimum pilot qualifications: No specific requirement.
8. Class D airspace:
  - a. Airspace from the surface up to and including 2500' AGL.
  - b. Surrounds airports serviced by radar approach control.
  - c. Configuration is tailored to meet the operational needs of the area.
  - d. Basic VFR visibility minimum: 3 sm.
  - e. Basic VFR distance from cloud minimums: 500' below, 1000' above, 2000' horizontal.
  - f. Entry requirement: Two-way radio communication prior to entry.
  - g. Equipment required: Two-way radio, transponder with altitude reporting capability.
  - h. Minimum pilot qualifications: No specific requirement.

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9. Class E airspace:
  - a. Controlled airspace that is not designated A, B, C or D.
  - b. Airspace above the surface or above the underlying airspace, extending to Class A airspace, which begins at 18,000' MSL.
  - c. Unless designated at a lower altitude, class E airspace begins at 14,500' AGL.
  - d. Basic VFR visibility minimum:
    - i. Less than 10,000' MSL: 3 sm.
    - ii. At or above 10,000' MSL: 5 sm.
  - e. Basic VFR distance from cloud minimums:
    - i. Less than 10,000' MSL: 500' below, 1000' above, 2000' horizontal.
    - ii. At or above 10,000' MSL: 1000' below, 1000' above, 1 sm horizontal.
  - f. Entry requirement: None for VFR.
  - g. Equipment required: No specific requirement.
  - h. Minimum pilot qualifications: No specific requirement.
10. Class G airspace:
  - a. Uncontrolled airspace (airspace not designated A, B, C, D or E).
  - b. Airspace above the surface, extending to the base of the overlying Class E airspace.
  - c. Basic VFR visibility minimum (1200' AGL or lower):
    - i. Day: 1 sm.
    - ii. Night: 3 sm.
  - d. Basic VFR visibility minimum (over 1200' AGL but less than 10,000' MSL):
    - i. Day: 1 sm.
    - ii. Night: 3 sm.
  - e. Basic VFR visibility minimum (over 1200' AGL and at or above 10,000' MSL):
    - i. 5 sm.
  - f. Basic VFR distance from cloud minimums (1200' AGL or lower):
    - i. Day: Clear of clouds.
    - ii. Night: 500' below, 1000' above, 2000' horizontal.
  - g. Basic VFR distance from cloud minimums (over 1200' AGL but less than 10,000' MSL):
    - i. 500' below, 1000' above, 2000' horizontal.
  - h. Basic VFR distance from cloud minimums (over 1200' AGL and at or above 10,000' MSL):
    - i. 1000' below, 1000' above, 1 sm horizontal.
  - i. Entry requirement: None.
  - j. Equipment required: No specific requirement.
  - k. Minimum pilot qualifications: No specific requirement.
11. Special Use Airspace:
  - a. Prohibited areas: Established for national welfare. Depicted on charts.
  - b. Restricted areas: Unusual hazards. Must obtain permission. Depicted on charts.
  - c. Warning areas: May contain hazards. Depicted on charts.
  - d. Military Operations Areas (MOA's): Separates military traffic. Depicted on charts.
  - e. Alert areas: High volume of training or unusual aerial activity.
  - f. Controlled firing area: Activities suspended when aircraft presence is indicated.
  - g. Temporary Flight Restrictions (TFR's): Designated by FDC NOTAM. Wide variety of reasons for establishing TFR's.

## **REFERENCES**

1. 14 CFR Part 71, Designation of Class A, Class B, Class C, Class D and Class E Airspace Areas, Airways, Routes, and Reporting Points.
2. 14 CFR Part 91, General Operating and Flight Rules.
3. AC 61-23 / FAA-H-8083-25, Pilot's Handbook of Aeronautical Knowledge, Chapter 13.
4. Navigation charts.
5. AIM, Aeronautical Information Manual.