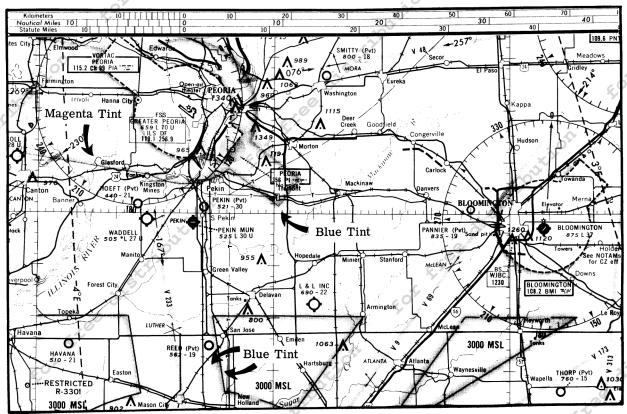
Department of Transportation FEDERAL AVIATION ADMINISTRATION VFR PILOT EXAM-O-GRAM* NO. 41

CONTROLLED AIRSPACE (SERIES 1)

Incorrect answers selected by many applicants in FAA Airman Written Examinations indicate that knowledge of controlled airspace and the application of pertinent Federal Aviation Regulations is a very weak area in pilot education. This weakness is further confirmed in investigations of accidents and violations. Just as there are traffic laws and restrictions regulating the operation of automobiles in certain areas or zones, there are regulations governing the operation of aircraft within designated airspace. These regulated areas are established only in the interest of safety. To apply the regulations pertinent to a particular airspace, the pilot must first identify and determine whether he is within that airspace. However, unlike streets and highways where automobile operation is restricted, airspace with special flight restrictions has no posted signs or markers. Consequently, in locating controlled airspace, you must visualize it by correlating the chart symbols with ground reference points. Where the vertical or horizontal limits are not shown on the chart (for example, the limits of an airport traffic area), a knowledge of the boundaries is essential.



To assist in locating and identifying various controlled airspace, this Exam-O-Gram attempts to show in three-dimensional perspective, only that airspace closely related to VFR flights. While the dimensions of the airspace are indicated, the illustrations are not drawn in true proportions. An accurate and complete description of each airspace will be found in FAR Part 1, Definitions and Abbreviations, or Part 71, Designation of Federal Airways, Controlled Airspace and Reporting Points.

As you read this Exam-O-Gram relate each illustration to the Sectional Chart excerpt above; then consult the applicable regulation referenced in the accompanying text. Although each airspace has its individual boundaries and rules, you should remember that frequently one overlaps or is collocated with another, as in the case of an airport having an airport traffic area within a control zone. Appearing with each illustration are review questions dealing with VFR flights on the above chart segment. Check your answers against the answers and explanations given in the next Exam-O-Gram (No. 42).

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* Exam-O-Grams are non-directive in nature and are issued solely as an information service to individuals interested in Airman Written Examinations.

AIRPORT TRAFFIC AREA - airspace within 5 statute miles of an airport at which a control tower is in operation. This airspace extends from the ground up to but not including 3,000 feet above ground level (AGL). The boundaries are not depicted on aeronautical charts but the presence of an airport traffic area is indicated when tower radio frequencies are shown in the airport data box. (Letters CT appear on new series) Sectional Charts.) While this area is not designated as controlled airspace, the radio communications and operating requirements affect all flights taking off and landing at those airports.

Reference: FAR 1, 91.85, 91.87.

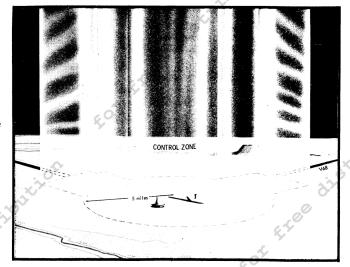
(Use chart excerpt on first page)

- IS THERE AN AIRPORT TRAFFIC AREA AT GREATER PEORIA AND BLOOMINGTON AIRPORTS?
- IF YOU HAVE NO RADIO, AND THE CEILING AND VISIBILITY ARE UNLIMITED (CAVU), ARE YOU PERMITTED TO LAND AT GREATER PEORIA? AT BLOOMINGTON?
- WHEN OVERFLYING GREATER PEORIA AIRPORT AT 4,000 FEET MSL IN CAVU WEATHER, ARE YOU REQUIRED TO MAINTAIN TWO-WAY RADIO COMMUNICATIONS WITH THE CONTROL TOWER? AT 3,500 FEET MSL?
- WHAT IS THE MAXIMUM AUTHORIZED SPEED FOR RECIPROCATING ENGINE AIRCRAFT WHEN APPROACHING GREATER PEORIA FOR LANDING?

CONTROL ZONE - airspace that is normally a circular area with a 5 mile radius and extensions as necessary for instrument approach and departure paths at certain airports. (A control tower may or may not be located within the control zone.) It starts at the surface, and extends up to the base of the Continental Control Area. The lateral limits are shown on aeronautical charts by a dashed line. Specific weather minimums are required for VFR flight within this zone, and an ATC clearance is required when the weather is less than VFR minimums. Certain other flight restrictions are also in effect within this airspace.

Reference: FAR 1, 71.11, 91.71, 91.105, 91.107.

(Use chart excerpt on first page)



AIRPORT TRAFFIC AREA

- WHAT WEATHER CONDITIONS MUST EXIST TO LAND OR TAKE OFF AT BLOOMINGTON WITHOUT OBTAINING A SPECIAL VFR CLEARANCE? AT GREATER PEORIA?
- WITH WHOM WOULD YOU COMMUNICATE TO RECEIVE A SPECIAL VFR CLEARANCE AT GREATER PEORIA? AT BLOOMINGTON?
- AT WHAT ALTITUDE ARE YOU PERMITTED TO PRACTICE STALLS, SPINS, OR ACROBATICS OVER BLOOMINGTON AIRPORT?

VFR - No. 41 10/71

CONTROL AREA - designated airspace starting at 700 feet above ground level (unless a higher altitude is specified) and extending upward to the base of the overlying Continental Control Area (14, 500 feet MSL). The lateral limits, normally identical to Federal Airways but frequently including far-reaching extensions, are shown on Sectional Charts with colored boundaries. Those areas bounded by magenta (purplish-red) tint start at 700 feet AGL, while those bounded by blue tint start at 1, 200 feet AGL (unless a higher altitude is specified). The dark edges of tinted borders indicate the outer boundary of the airspace. VFR flights within control areas require certain weather minimums.

Reference: FAR 1, 71.7, 71.163, 91.105.

(Use chart excerpt on first page)

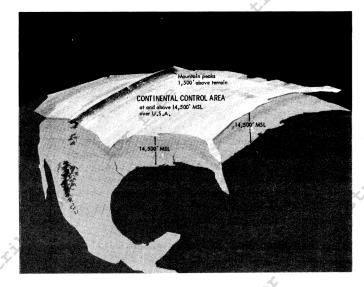
- 1. WHEN OVER THE TOWN OF MACKINAW (CENTER OF CHART) AT 3,000 FEET ABOVE THE GROUND, ARE YOU WITHIN CONTROLLED AIRSPACE?
- 2. WHEN FLYING IN THE IMMEDIATE VICINITY OF MACKINAW AT 15, 500 FEET MSL WOULD YOU BE IN THE CONTROL AREA?
- 3. WHAT ARE THE VISIBILITY AND CLOUD CLEARANCE MINIMUMS WHEN FLYING VFR AT 9,500 FEET MSL IN THE IMMEDIATE VICINITY OF MACKINAW?

CONTINENTAL CONTROL AREA - Consists of the airspace of the 48 contiguous states, the District of Columbia, and Alaska south of latitude 68 degrees North, excluding the Alaska peninsula west of Longitude 160° West, at and above 14,500 MSL, but does not include (a) the airspace less than 1500 feet above the surface; and (b) certain prohibited or restricted areas.

Reference: FAR 1, 71.9, 91.105.

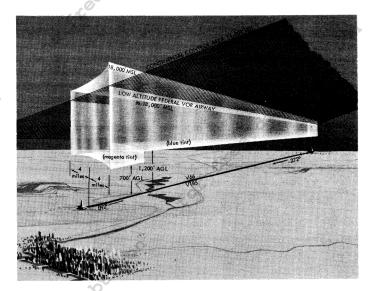
(Use chart segment on first page)

- WHAT VISIBILITY IS REQUIRED TO FLY VFR AT 16, 500 FEET MSL ON V9 V 69 AIRWAY?
- 2. IF THERE ARE CLOUDS AT 17,000 FEET MSL, HOW FAR BELOW THE CLOUDS SHOULD YOU FLY ON V9 V 69 AIRWAY VFR?



3. IF YOU ARE <u>OUTSIDE THE LATERAL LIMITS</u> OF AN AIRWAY AT 15, 500 FEET MSL, WHAT ARE THE MINIMUM WEATHER CONDITIONS FOR VFR FLIGHT?

FEDERAL AIRWAY - each airway is based on a centerline that extends from one navigational aid or intersection to another navigational aid specified for that airway. The centerline is shown on aeronautical charts, and the magnetic course and the airway identity are indicated. Each airway includes airspace within parallel boundary lines normally 4 nautical miles each side of the centerline, and extends from 1, 200 feet above the surface (unless a higher altitude is indicated) upward to, but not including 18,000 feet MSL. Airways in Hawaii have no upper limits. Inasmuch as a Federal Airway is controlled airspace divided at 10,000 feet MSL, VFR flight within the airway requires distinct weather minimums above and below 10,000 feet. Certain flight maneuvers are restricted in this airspace.



Reference: FAR 1, 71.5, 91.71, 91.105.

(Use chart excerpt on first page)

- 1. HOW FAR EAST OR WEST OF WADDELL AIRPORT (SOUTHWEST OF PEORIA) SHOULD YOU GO TO PRACTICE STALLS, SPINS, OR ACROBATICS?
- 2. IF YOU ARE FLYING VFR AT 15,500 FEET MSL ON V9 V69 AIRWAY (SOUTHWEST OF BLOOMINGTON), WHAT ARE THE MINIMUM VISIBILITY AND CLOUD CLEARANCE REQUIREMENTS? AT 3,000 FEET MSL?
- 3. WHAT MINIMUM VISIBILITY IS REQUIRED TO FLY VFR FROM WADDELL AIRPORT TO PEKIN MUNICIPAL AIRPORT AT 1, 100 FEET MSL?

ANSWERS WITH EXPLANATIONS ARE PRESENTED IN EXAM-O-GRAM NO. 42.

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VFR - No. 41

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