

Department of Transportation
FEDERAL AVIATION ADMINISTRATION
IFR PILOT EXAM-O-GRAM* NO. 36

LOST COMMUNICATIONS PROCEDURES - ALTITUDE REQUIREMENTS

Recent analyses of responses received on the Instrument Rating (Airplane) Written Test indicate that many applicants are confused regarding altitudes to be flown when two-way communications failure occurs. This Exam-O-Gram will attempt to clarify the most important procedures.

Assume you are planning a "round robin" IFR flight from Pueblo Memorial Airport, Pueblo, Colorado, by the route shown on your flight plan in Figure 1. The Enroute Low Altitude Chart segment route is shown in Figure 2. The FSS weather briefing you receive indicates IFR conditions for the entire route. Prior to taxiing, you contact "Clearance Delivery" and receive this clearance: AIR REAMER TWO ONE ONE TWO YANKEE CLEARED AS FILED - MAINTAIN SEVEN THOUSAND - MAINTAIN RUNWAY HEADING FOR VECTOR TO VICTOR TEN - SQUAWK ZERO SEVEN ZERO ZERO JUST BEFORE DEPARTURE - DEPARTURE CONTROL WILL BE ONE TWO FIVE POINT TWO.

FEDERAL AVIATION AGENCY FLIGHT PLAN			Form Approved. Budget Bureau No. 04-R072.3			
		1. TYPE OF FLIGHT PLAN		2. AIRCRAFT IDENTIFICATION		
		<input type="checkbox"/> VFR <input checked="" type="checkbox"/> IFR		N2112Y		
3. AIRCRAFT TYPE/SPECIAL EQUIPMENT <input type="checkbox"/>		4. TRUE AIRSPEED	5. POINT OF DEPARTURE	6. DEPARTURE TIME		7. INITIAL CRUISING ALTITUDE
AIR REAMER 250/A		150 KNOTS	PUB	1400		120
8. ROUTE OF FLIGHT						
V-10 TODD V-169 KING V-210 GORDON V-19 PUB VOR						

Figure 1

After takeoff, you contact Departure Control and receive vectors to intercept V-10. Established on V-10, you receive further clearance from Departure Control: AIR REAMER TWO ONE ONE TWO YANKEE REPORT LEAVING SIX THOUSAND - EXPECT FURTHER CLEARANCE TO EIGHT THOUSAND AT ORDWAY INTERSECTION - CONTACT DENVER CENTER ON ONE TWO SIX POINT SIX NOW.

When you attempt to contact Denver Center, you experience complete two-way communications failure! What is the correct procedure? Let's consider the rules set forth in FAR Part 91 which you must know and follow. If you are in VFR conditions, or subsequently encounter VFR conditions, you ". . . shall continue the flight under VFR conditions and land as soon as practical." Since this Exam-O-Gram concerns only altitude requirements, consider the route to be ". . . AS FILED." According to FAR Part 91, you shall fly ". . . at the highest of the following altitudes for the route segment being flown: (1) the altitude last assigned; (2) the MEA; or (3) the altitude you were advised to expect in a further clearance (EFC).

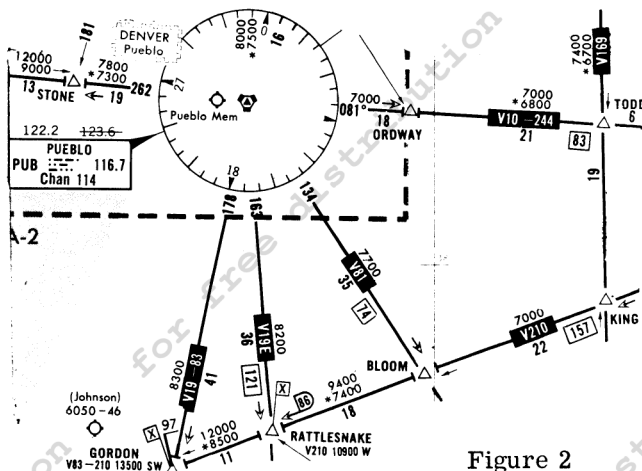


Figure 2

Let's review your present situation. You requested 12,000 feet in the flight plan but were advised to ". . . EXPECT FURTHER CLEARANCE TO EIGHT THOUSAND AT ORDWAY INTERSECTION." Review the Low Altitude Chart segment (Figure 2) and note that you would fly the EFC altitude of 8,000 feet from ORDWAY to BLOOM Intersections. Why? Because the 8,000 feet in the EFC is higher than any of the MEAs before BLOOM Intersection. From BLOOM to RATTLESNAKE Intersections, the MEA of 9,400 feet is higher than the EFC altitude of 8,000 feet, so you would fly the MEA. Notice the Minimum Crossing Altitude (MCA) of 10,900 feet at RATTLESNAKE when flying West on V-210. You must observe this minimum altitude restriction also. Therefore, you must initiate a climb prior to reaching RATTLESNAKE to cross this Intersection at or above 10,900 feet. You encounter a still higher MEA of 12,000 feet between RATTLESNAKE and GORDON Intersections. You must continue the climb to 12,000 feet to comply with this MEA. For the remainder of your flight from GORDON Intersection to PUB VOR, you must descend to 8,300 feet to comply with the MEA altitude requirement for this segment of your route.

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Have you observed the rules regarding altitude requirements? Yes, you maintained the highest of the applicable altitudes for the ". . . route segment being flown." Obviously, your problem would have been much simpler had you received a clearance to 12,000 instead of 8,000 feet. The altitude you requested in the Flight Plan would have met, or exceeded, the altitude requirements along your route.

Consider some of the other procedures associated with complete two-way communications failure while on an IFR flight. Remember the procedures for transponder operation? Squawk Code 7600 if you have only two-way communications failure; Squawk Code 7700 if an emergency exists. Do not forget to monitor the navigational aids which are able to transmit voice. ARTC and FSS personnel will attempt to contact you on any means at their disposal. Help them to help YOU! As part of your preflight action, you should become familiar with the aids and facilities which are available along your route. To rephrase an old saying . . ."There are three things which are absolutely useless to a pilot: (1) the altitude above you, (2) the runway behind you, and (3) the preflight planning you DID NOT do!"

References: FAR Part 91 and AIM Part I.

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

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