

DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration
IFR PILOT EXAM-O-GRAM® NO. 37

LOST COMMUNICATIONS PROCEDURES -- ROUTE REQUIREMENTS

When complete two-way radio communications failure occurs in an IFR environment, air traffic control is predicated on certain "anticipated pilot actions." These "actions" or procedures are set forth in FAR Part 91 and the AIM, Part 1. In the interest of flight safety, it is your responsibility to know them. IFR Exam-O-Gram No. 36 concerned only altitude requirements. Analyses of responses received on the Instrument Rating (Airplane) Written Tests indicate that many applicants are confused regarding route requirements under two-way radio communications failure.

Today's airplanes operating IFR are usually equipped with dual communications and navigational equipment. The chance that you will be unable to receive any ATC instructions is rather remote; nevertheless, it does happen. Procedures have been established to follow when this "possibility" becomes a reality. Let us review these procedures as they apply to ROUTE requirements under conditions of complete two-way radio communications failure. Continued IFR operations in VFR conditions may adversely affect other users of the airspace. Why? Certain airspace must be reserved and protected for aircraft on IFR flight plans. Therefore, one basic rule always applies "...if you are in VFR conditions, or subsequently encounter VFR conditions, REMAIN VFR and land as soon as practicable." In IFR flight conditions, observe these rules: Follow (1) the last ATC clearance received, or (2) if being radar vectored, by the fix, route, or airway specified in the vector clearance, or (3) the "Expected Further Clearance" routing. In the absence of

FEDERAL AVIATION AGENCY FLIGHT PLAN				Form Approved. Budget Bureau No. 04-R072.3		
		1. TYPE OF FLIGHT PLAN		2. AIRCRAFT IDENTIFICATION		
		<input checked="" type="checkbox"/> PVFR	<input type="checkbox"/> VFR	N 1211P		
		<input type="checkbox"/> IFR	<input type="checkbox"/> DVFR			
3. AIRCRAFT TYPE/SPECIAL EQUIPMENT <input checked="" type="checkbox"/>	4. TRUE AIRSPEED	5. POINT OF DEPARTURE		6. DEPARTURE TIME		7. INITIAL CRUISING ALTITUDE
AIR REAMER 250JA	150 KNOTS	DEP		PROPOSED (Z)	ACTUAL (Z)	50
8. ROUTE OF FLIGHT						
ALP VOR V-135 CHA VORTAC V-12 DEL VOR V-16 ECH VOR						

Figure 1

rules (1), (2), and (3), then proceed by the flight planned route you filed with ATC.

Let us take some examples. You are on an IFR flight, in a radar environment, from Departure Municipal Airport to Destination Municipal Airport via the flight plan in Figure 1. The Enroute Low Altitude Chart segment is depicted in Figure 2.

Example #1: Clearance Delivery gives you this IFR clearance: "AIR REAMER ONE ONE PAPA - CLEARED AS FILED...." Radio failure occurs after takeoff. In this situation, fly the "last

ATC clearance" (Rule #1) which is the same as the "flight planned route." **Example #2:** Assume the takeoff clearance read: AIR REAMER ONE ONE PAPA - CLEARED TO BRAVO VOR -EXPECT FURTHER CLEARANCE PRIOR TO BRAVO VOR...." Radio failure occurs prior to receiving the EFC routing. You should follow "the last ATC clearance" (Rule #1) to Bravo VOR, then the "flight planned route" to the destination.

Example #3: Assume now that you do receive an "EFC routing" prior to Bravo VOR which reads "...EXPECT FURTHER CLEARANCE VIA VICTOR ONE SIXTY NINE BEAR - VICTOR TWELVE DELTA - VICTOR SIXTEEN ECHO - DIRECT DESTINATION." You should proceed to Destination Municipal Airport via this EFC Routing (Rule #3). A radar vector clearance (Rule #2) is illustrated in **Example #4:** You are proceeding "AS FILED...." After passing Delta VOR, ATC issues this clearance: "AIR REAMER ONE ONE PAPA - TURN LEFT TO TWO ONE ZERO FOR VECTOR TO DESTINATION INITIAL APPROACH FIX...." Radio failure occurs after you acknowledge this clearance. Observe Rule #2 and proceed as specified in the ATC clearance.

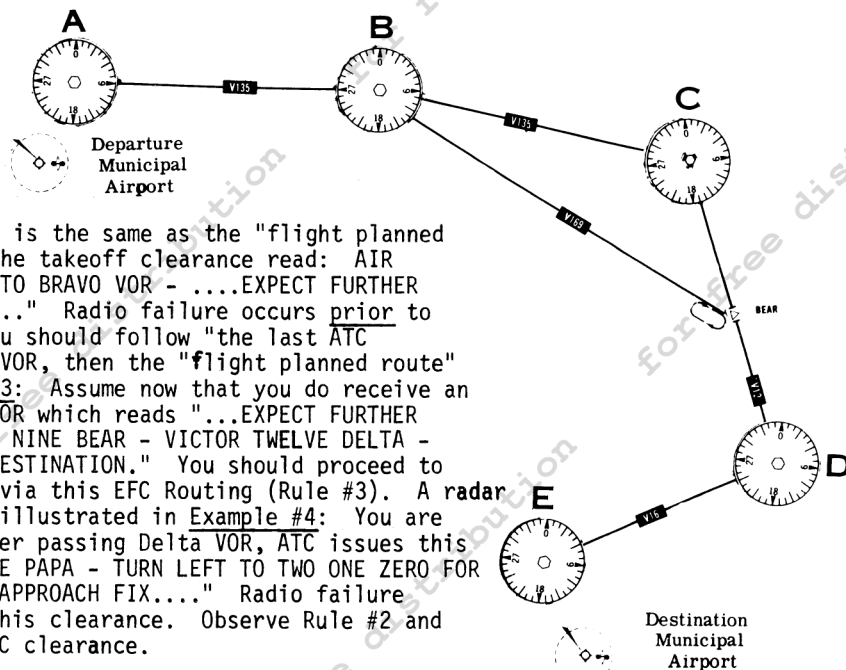


Figure 2

If ATC did not receive your acknowledgement of the new route clearance, they would have to protect BOTH the old and new routes until they determined which route you were flying. Your acknowledgement of any ATC clearance will determine the procedure(s) you and ATC will use. Acknowledgement may be given (at ATC's request) by changing transponder code, "squawking" IDENT, or by executing an identifying turn. Contact with you in this case would probably be through some navigational aid frequency.

Review the AIM, Part I, EMERGENCY PROCEDURES. Always exercise sound judgment and good operating practices in all cases of two-way radio communications failure. You can be sure you will receive "top priority" handling from ATC. After you land, find a telephone and call the nearest ATC facility and tell them what happened. It is a very small price to pay for the service ATC has provided you. Remember...a search will be initiated 30 minutes after your ETA has expired if you have not been heard from. If you are found in a coffee shop some time after you have landed safely, it could prove to be embarrassing! A future Exam-O-Gram will discuss the procedures to use with regard to executing the instrument approach under conditions of two-way communication failure.

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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