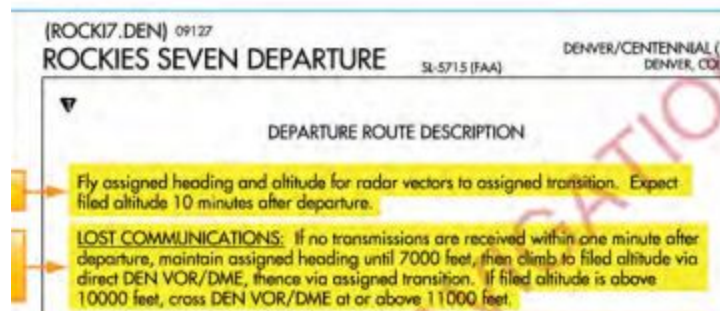


IFR Two-Way Radio Communications Failure

A review of regulation and a quick survey of other applicable FAA documents.

- FARs (91.185)
 - When two-way radio communication failure happens in IFR Flight Plan / VFR Conditions:
 - 1. Maintain VFR conditions
 - 2. Land soon as practicable
 - 3. Notify ATC after landing
 - When two-way radio communication failure happens in IFR Flight Plan / IFR Conditions, remember this acronym R, A, T
 - R is for ROUTE. Then, remember the sub-acronym (A V E F)
 - A – Assigned (Last ATC Clearance)
 - V – Vector (if on ATC vectors direct to fix, route, or airway specified in vector clearance)
 - E – Expected Further Clearance route
 - F – Filed (Flight Plan route)
 - A is for ALTITUDE. Maintain the HIGHEST of the altitudes outlined in this sub-acronym (MEA)
 - M – Minimum Altitude applicable (MEA, MOCA, etc)
 - E – Expected Further Clearance
 - A – Assigned Last ATC Clearance
 - T is for TIME. If the clearance limit in the ATC clearance is
 - An IAF: leave as close as possible to the EFC, or ETA from filed or amended ATC clearance
 - Non-IAF: leave as close as possible to EFC, or if no EFC given proceed direct to IAF to commence approach as close as possible to ETA from filed or amended ATC clearance
- AIM (Chapter 6 - emergency procedures)
 - “Unless deviation is necessary under the emergency authority of 14 CFR Section 91.3, pilots of IFR flights experiencing two-way radio communications failure are expected to adhere to the procedures prescribed under “IFR operations, two-way radio communications failure.” Whether two-way communications failure constitutes an emergency depends on the circumstances, and in any event, it is a determination made by the pilot.” - So, having two-way radio failure isn't in and of itself an emergency, only if the pilot deems it as such. FAR 91.185 spells out what you are to do, but you may deviate from that if a threat to safety (you just can't “declare” the emergency at that point other than squawking 7700).
 - The “continue in VFR conditions and land rule” applies even if you are in Class A airspace (you shouldn't think you need to “stay IFR” just because you are in airspace where IFR clearance is required.)

- If given an “expect” altitude in conjunction with a time/fix, but you are passed that time/fix, then the “expect” altitude doesn’t apply (ie. you only maintain the highest of the assigned or min IFR altitude).
- If you have to climb from last assigned because of a higher MEA, you descend back to your last assigned if you encounter a lower MEA.
- MOCA is considered a “min IFR altitude” as much as MEA, and should be considered in your computation.
- Squawk 7600
- Instrument procedures handbook
 - SID (1-26): “It is prudent to review radar SID charts prior to use because this type of procedure often includes nonstandard lost communication procedures. If you were to lose radio contact while being vectored by ATC, you would be expected to comply with the lost communication procedure as outlined on the chart, not necessarily those procedures outlined in the AIM”



- STAR (3-16): “For example, minimum en route altitude (MEAs) printed on STARS are not valid unless stated within an ATC clearance or in cases of lost communication.”
- Holds (pg 2-51): “In the event that two-way radio communication is lost, the EFC allows the pilot to depart the holding fix at a definite time. Pilots should plan the last lap of the holding pattern to leave the fix as close as possible to the exact time.” -- if you don’t have one, ASK!
- RNAV approaches: “Pilots entering the TAA with two-way radio communications failure (14 CFR § 91.185, IFR Operations: Two-way Radio Communications Failure), must maintain the highest altitude prescribed by 14 CFR § 91.185(c)(2) until arriving at the appropriate IAF. “ -- With two way radio comm, you may be cleared for the approach prior to the IAF and then can descend to the TAA applicable altitude. With two-way radio failure, this is not the case, as you obviously haven’t gotten “clearance.”
- Radar approach (pg 4-72): “Particularly, lost communications procedures should be briefed prior to execution to ensure pilots have a comprehensive understanding of ATC expectations if radio communication were lost.”
 - <http://tfmlearning.faa.gov/publications/atpubs/ATC/atc0510.html#Z?L1e0JACK> (ATC procedures)

ATC PHRASEOLOGY-

IF NO TRANSMISSIONS ARE RECEIVED FOR (time interval) IN THE PATTERN OR FIVE/FIFTEEN SECONDS ON FINAL APPROACH, ATTEMPT CONTACT ON (frequency), AND

if the possibility exists,

PROCEED VFR. IF UNABLE:

if approved,

PROCEED WITH (nonradar approach), MAINTAIN (altitude) UNTIL ESTABLISHED ON/OVER FIX/NAVAID/APPROACH PROCEDURE,

or

(alternative instructions)

- Communications Failure / additional points. (pg 2-47)
 - “It is possible ATC may try to make contact with pilots over a VOR, VORTAC, NDB, or localizer frequency. In addition to monitoring NAVAID receivers, attempt to reestablish communications by contacting ATC on a previously assigned frequency or calling an FSS.” - or, use your cell phone or backup navcomm!
 - VFR conditions - “land as soon as practicable” doesn’t mean “as soon as possible” - use your judgement as PIC.
- Instrument Flying Handbook
 - Items are already covered above.