

174th COA – 2

Lost-Link Procedures

Point of Contact:



Exemption 6

- 1) In the event that the RPA enters a Lost-Link status, the RPA will squawk 7600. The RPA Pilot will immediately inform the appropriate ATC controller (via landline telephone) with responsibility for current airspace. This may include Cleveland Air Traffic Control Center (ZOB ARTCC)), Boston Air Traffic Control Center (ZBW) as well as WSAAF Radar Approach Control (RAPCON) and/or WSAAF Control Tower directly. The RPA pilot will additionally notify Wheeler Sack Air Traffic Control if recover to R-5201 is anticipated. The Supervisor on Duty at Wheeler Sack AAF ATCT is (315) 772-6006. Boston ARTCC Area A Supervisor's number is (603) 879-6656. Cleveland ARTCC Area 3 Supervisor's number is (440) 774-0425.
- 2) Lost Link within KGTB Class D Airspace :
 - a) The RPA pilot will proceed at pattern altitude (3000' MSL) direct to the initial lost-link waypoint (FTP 1) located in R-5201 and execute the lost link profile (Emergency Mission routing) commensurate with R5201 operations defined below.
- 3) If lost link occurs while operating outside of GTB Class D Airspace the RPA pilot will:
 - a) If within R5201:
 - i) The RPA will maintain the lateral confines of R5201 and proceed direct to initial lost-link waypoint (FTP 1) at FL190 and orbit over FTP#1 while troubleshooting Lost Link.
 - ii) Flight Termination Point No. 1 (FTP #1) is defined as the point overhead the Main Impact Area of the 'North Box' at location N 44 09.50 W 75 31.0 (ART 076 / 027). The RPA will continue to trouble-shoot Lost-Link in this orbit until normal operations are either re-established, or fuel becomes critical.
 - iii) At 1 hour fuel reserve, advise ATC of 'potential mission termination.' At 30 minutes fuel reserve, advise ATC of "pending termination" and declare an In-Flight Emergency (IFE). Notify Fort Drum Range-Control (via telephone and / or radio transmission) to clear all personnel from any potential impact areas, and put crash-response on alert. Once fuel is exhausted, the UA will lower the landing gear, reduce speed to +15 knots above stall and fly the lost link pattern until ground impact.
 - iv) At termination advise ATC of actual impact location. If, during any expected flight-into-terrain (FIT) the command link is re-established, the UA pilot will attempt to maneuver the aircraft for controlled-flight-into-terrain (CFIT) directly onto the access roads associated with Target No's 405 – 407 IAW the Range 48 Operating Handbook to facilitate recovery.
- 4) If the RPA has departed R5201 and is en-route **either to or from** the Misty Airspace Complex, **but not yet established inside** the Misty Airspace Complex, then:
 - a) The RPA will (if eastbound towards R-5201) maintain the current ATC-assigned altitude and course or (if westbound towards the Misty Complex) maintain the current ATC-assigned

altitude and proceed to ENEX 11 or 12, then further proceed to A11 and orbit (See Item 5). Once established inside the lateral confines of R5201 the procedures for Lost Link inside of R5201 as previously defined.

- 5) If the RPA has entered the Misty Airspace Complex:
 - a) The RPA will proceed direct to initial lost-link waypoint (A11 – defined as the point N 43 31.0 W 076 51.0, or the ROC 068 / 48 DME Fix) at FL190 and orbit over A11 while troubleshooting Link-recovery.
 - b) Once established over A11, the RPA will maintain this orbit and continue to troubleshoot all methods of Link recovery **for a period of 1 hour**; after which the RPA will proceed direct to FTP#1 at FL190 and will execute procedures as defined in R5201.
 - c) Link recovery will be attempted via Ku or C-Band methods appropriate to the phase of flight and Line-of-Sight (LOS) limitations. The Ft Drum backup GCS (a Dual-Control GCS) will be utilized if required to re-establish the Link. If both Ft Drum GCSs and/or Ft Drum Ground Data Terminal (GDT) are unsuccessful, additional attempts from GDTs either at Syracuse-Hancock Field, or other locations (worldwide) will be attempted prior to termination. Off-station control via Ku recapture shall be considered prior to 'termination' if time and conditions permit.
 - d) FTP #1 – This location is the primary, pre-surveyed impact area for large-order detonations in the Fort Drum bombing and gunnery range. It is the intended termination point for all RPA operations operated by the 174th Fighter Wing. While this site is optimized; any location inside of the Designated Impact Area (DIA) located inside of R-5201 is appropriate (see attached diagram). Additionally, the Range Control Officer (RCO) located in the Range Control Tower, will act as an additional spotter and on-scene commander until the Crash-Recovery Operations from Ft. Drum AAF (WSAAF) take control.
- 6) If lost link occurs within a restricted or warning area, or the lost link procedure above takes the UA into the restricted or warning area – the aircraft will not exit the restricted or warning areas until the link is re-established.
- 7) The UA lost link mission will not transit or orbit over populated areas.
- 8) When outside of restricted/warning area airspace, lost link programmed procedures will avoid unexpected turn-around and/or altitude changes and will provide sufficient time to communicate and coordinate with ATC.
- 9) Lost link orbit points shall not coincide with the centerline of Jet Routes or Victor airways.

