

**ATTACHMENT 9-8 – APPROVED ARCHER AIRCREW PROFICIENCY FLIGHT
PROFILE #8
ARCHER Mission Profile**

This profile may only be flown by GA-8 pilots (who are qualified SAR/DR Mission Pilots) and ARCHER aircrew members or properly supervised trainees. If onboard, Instructor Pilots must be qualified PICs in the GA-8 flown since they are expected to be able to assume command of the flight as needs dictate. The following is an approved profile for “Proficiency Flight Training for Mission Pilots.” Proficiency flights are designed to prepare crews to fly Air Force missions, and though routine flight procedures can be practiced, the majority of a proficiency flight must be focused on the training outlined in the profile below. For example, crews flying the ARCHER mission profile can reasonably conduct pattern work with multiple touch and go landings, but should not plan to spend the majority of the flight time in the airport traffic pattern. PICs will fly as much of the approved mission profile as safely possible understanding that requirements for trainees, weather, or other factors may prevent the completion of all listed events. This proficiency flight can be an Air Force assigned non-reimbursed mission authorized by the State Director that is released by a flight release officer using mission symbol B-12 (reference CAPR 60-1, attachment 10). The monthly mission number and mission profile number will be noted on the CAPF 99 by the FRO. Alternatively, this proficiency flight can be an Air Force assigned reimbursed mission authorized by the wing commander, SD, and LR and released by a flight release officer using mission symbol A-7 (reference CAPR 60-1, attachment 10). Requests for this training profile under this option will be made through WMIRS.

This profile is meant to exercise the entire ARCHER Crew (Archer Pilot, Archer Co-Pilot/Observer, ARCHER TRAC Operator, and ARCHER Console Operator). Successful completion of this training will require crew coordination and interaction to fly the ARCHER mission profile with good sensor coverage of the search area.

Primary ARCHER Crew Position Duties:

ARCHER Pilot: Ensure safe operation of the aircraft, PIC; Provide stabilized platform for ARCHER data collection.

ARCHER Co-Pilot/Observer: Clear for traffic; Provide situational awareness assistance to the ARCHER Pilot (especially when in the grid); Maintain radio communications with CAP mission base.

ARCHER TRAC Operator: Conduct mission planning for sortie; Provide track guidance to ARCHER Pilot to maximize sensor coverage; Coordinate mission execution with ARCHER Console Operator.

ARCHER Console Operator: Setup and operate ARCHER equipment and conduct in-air review of targets. Responsible for ground analysis of ARCHER data.

Mission Commander: The most experienced ARCHER aircrew member (no matter what position this person occupies in the plane) should be designated Mission Commander. This person has the responsibility for the overall success of the mission and is the final authority on all aspects of the mission. The Mission Commander will be responsible for prebriefing all mission details. The PIC (who could also be the Mission Commander) will brief (as a minimum) weather, NOTAMS, aircraft safety and emergency procedures. Note: This does not override the PICs responsibility for the aircraft and overall safety of flight.

Plan and brief an ARCHER sortie as a crew. Special emphasis should be placed on mission risk assessments, the routes to and from the search area, aircraft limitations and operating procedures, and crew communications procedures.

Brief the overall mission objectives, crew member in-flight communication procedures, mission responsibilities (ARCHER Console Operator, ARCHER TRAC Operator and ARCHER Pilot and CoPilot/Observer) as appropriate. Brief search area planning, coverage, estimated time, method of track alignment (turns) and return to base. Review ground and in-flight emergency procedures, taxi, takeoff, and in-flight procedures with each crew member.

Construct an ARCHER search grid using the following parameters:

Standard Quarter Grid Search or, Contour Search of a terrain feature.

Leg direction: Grid Search or Free rotate

Heading: 090° or as appropriate for Contour Search

Latitude: Appropriate for Locality

Longitude: Appropriate for Locality

Altitude: 2500 ft AGL

Leg overlap: 20%

Leg length: 5.0 nm

The ARCHER TRAC Operator will guide the pilot to enter the search grid at the planned entry point. The aircraft should be at search speed, altitude and lined up for entry no less than 3 miles prior to grid entry.

During the flight, the ARCHER TRAC Operator shall provide continuous course, altitude and ground speed corrections to the pilot to ensure proper sensor coverage of the search area. The ARCHER TRAC Operator will also complete the control manipulations and activities as outlined in the ARCHER TRAC Operator Task Guide.

During the flight, the ARCHER Console Operator shall coordinate with the ARCHER TRAC Operator, and complete the control manipulations on the ARCHER Console and activities as outlined in the ARCHER Operator Task Guide.

An ARCHER instructor may review the ARCHER TRAC mission data after the flight, so do not delete any mission data from ARCHER TRAC computer.

An ARCHER instructor may review the ARCHER console mission data after the flight, so do not delete any mission data from the Archer System.

Perform a normal landing to a full stop.
Shut-down, tie-down, and refuel as appropriate.
Close the flight plan as necessary.

After the flight, the Mission Commander will review the in-flight coverage data with the crew. Areas to be debriefed include: efficiency and search pattern coverage, inter-plane communications between all crew members, overall mission effectiveness and lessons learned/areas needing improvement. A review of ARCHER TRAC coverage data and ARCHER Console data should be done to help visualize the actual course flown and to aid in the debriefing of the training activities. The Mission Commander should also debrief each crew member on how well they accomplished their mission responsibilities.