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SHAW AFB**



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Control**

**POINSETT ELECTRONIC COMBAT  
RANGE**

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This publication compliments AFI 13-212V1 and AFI 13-212V1\_ACCSUP, *Range Planning and Operations*. It establishes responsibilities, policies, and procedures for the maintenance, operation, and use of the Poinsett Bombing & Gunnery (B&G) and Electronic Combat (EC) Range Complex. This supplement applies to all who use and operate this range. Insert this supplement behind AFI 13-212V1\_ACCSUP. Ensure that all records created as a result of process prescribed in this publication are maintained in accordance with (IAW) AFMAN 33-363, *Management of Records*, and disposed of IAW Records Disposition Schedule (RDS) located in the Air Force Records Information Management System (AFRIMS). Contact supporting records managers as required. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847 to 20 OSS/OSOR, 438 Killian Avenue Shaw AFB, SC 29152-5041; route through your appropriate functional chain of command.

**SUMMARY OF CHANGES**

This document has been substantially revised and must be completely reviewed. This supplement has been changed to update the contents as a result of the newly released basic publication and Air Combat Command (ACC) Supplement.

## Chapter 1

### RESPONSIBILITIES

#### 1.1. General Information.

**1.2. 20 FW (ROA)** Commanders of 20 FW units will ensure personnel under their command comply with the provisions of this supplement. Personnel of units or agencies outside the 20 FW are also required to comply with this supplement when performing duties on or in support of the Poinsett Electronic Combat Range (ECR).

#### 1.3. Other Agencies

1.3.1. 20th Logistics Readiness Squadron will:

1.3.1.1. Provide vehicles IAW the ACC Vehicle Authorization Listing for firefighting and the Government Contracting Officer's Representatives (CORs).

1.3.1.2. Provide additional vehicles (if available) upon request by EOD, range maintenance and other support agencies, to accomplish range clearing duties.

1.3.2. 20th Communications Squadron will:

1.3.2.1. Provide land mobile radio repeater for the range net and Shaw AFB and telephone communications between the Poinsett ECR, Shaw AFB and off range fixed electronic warfare (EW) sites in SC and GA.

1.3.2.2. **(Added)** Maintain network connectivity between the Poinsett ECR and Shaw AFB and provide support of network equipment .

1.3.3. 20 OSS/OSO Current Ops Flight will:

1.3.3.1. Conduct a semi-annual inspection of range facilities, vehicles and procedures. OSO will be assisted by other wing agencies as required.

1.3.3.2. Report of inspection results will be forwarded to 20 OG/CC for action.

1.3.3.3. A copy of the report will be maintained by OSO.

1.3.4. 20 OSS/OSA Airfield Ops Flight (ATCALs) will:

1.3.4.1. Maintain wind measuring equipment and digital barometer equipment.

**1.4. Host Unit.** The 20th Operations Support Squadron (20 OSS) is afforded operational control of the range and is the central point of contacts between using agencies and range personnel.

#### 1.5. CES

1.5.1. **(Added)** The 20 Civil Engineer Squadron will:

1.5.1.1. **(Added)** Provide upkeep and materials for USAF real property that is beyond the capability of the range contractor.

1.5.1.2. **(Added)** Shaw AFB fire department is responsible for firefighting on Poinsett ECR and will:

1.5.1.2.1. **(Added)** Ensure to the maximum extent possible that a direct firefighting vehicle is operational and available on the range during air to ground operation vulnerability periods.

1.5.1.2.2. **(Added)** Provide firefighting equipment and a sufficient number of firefighters to adequately cover small range fires. In the event of an aircraft accident the range firefighters will be deployed to spot incident location and provide Senior Fire Officer with situational awareness, and attempt to ascertain the location of the pilot without entering the incident hazard area. For other types of fires and emergencies, additional resources will be dispatched from Shaw AFB upon notification by phone from range personnel of the type of emergency.

1.5.1.2.3. **(Added)** Be in place at the range prior to the first available flying period (normally 0800L) and will remain on duty until released by the RCO. Firefighting support may be required at other than normal duty time (i.e., late or early flights, Explosive Ordnance Disposal (EOD) operations, or weekend flying). The range manager (RM) or range operations officer (ROO) will be responsible for notifying the fire chief/assistant chief of required support for other than normal duty hours. Notification will be given as soon as possible, but in no case less than 12 hours prior to requirement.

1.5.1.2.4. **(Added)** Event of Fire or Emergency. In the event of a fire or emergency the RCO or their designated representative will call the Shaw AFB fire department (base line 911, cell or off base line 803-895-1114/1115) advise the dispatcher of the nature of emergency and upon call completion notify the range firefighters of the situation and location. The range firefighting crew will coordinate their response with the Senior Fire Officer responding to the range from Shaw AFB.

1.5.1.2.5. **(Added)** Inclement Weather. During inclement weather, the fire truck may be parked inside the range maintenance barn if necessary.

1.5.1.3. **(Added)** Provide EOD support for range clearance and inspections as required.

1.4.1.3.1. **(Added)** Accomplish required clearance and disposal operations IAW AFI 13-212V1. Provide EOD briefings for Poinsett ECR personnel. EOD briefings will be conducted IAW AFI 13-212V1.

**1.6. Weather.** Poinsett ECR weather forecasts may be obtained from the local base weather station, command post, Automated Weather Observing System (AWOS) or ATC agency. Poinsett forecasts will include, as a minimum, lowest ceiling, visibility, minimum forecasted, humidity, highest forecasted wind speed, and KBDI (Drought Index) from the SC Forest Commission.

### **1.7. Range Users.**

1.7.1. Assigned range users are the 20 FW (Shaw AFB, SC), 552 ACW (Tinker AFB, OK) and the 93 AGOW (Moody AFB, GA).

1.7.2. Non assigned users are the 4 FW (Seymour Johnson AFB, NC), 169 FW (McEntire JNGB, SC), 31 MAG (MCAS Beaufort, SC) and various SCARNG and NCARNG units.

**1.8. Unit Feedback.** Range Operations Officer, DSN 965-2597.

**1.9. Scheduling Authority.** 20 OSS/OSOS, 438 Killian Ave., Shaw AFB, SC 29152-5510, (DSN 965-1118/1119, commercial (803) 895-1118/1119) or [20OSS.WingScheduli@us.af.mil](mailto:20OSS.WingScheduli@us.af.mil).

## Chapter 2

### DESCRIPTION OF RANGE AND MILITARY OPERATING AREA

**2.1. General Information.** The Poinsett Electronic Combat Range (PECR) (R-6002) complex is located seven air miles south of Shaw AFB near Wedgefield, SC. The complex consists of an air-to-ground B&G range and an EW facility. The existing range encompasses 12,521 acres (19.5 sq. mi.) of which approximately 1,000 acres are actual target areas. The main tower is located in the range compound adjacent to the administration building at coordinates are N33° 50.205' – W080° 29.570'. The flank tower is approximately 2,823 feet east of the main tower at coordinates N33° 50.346' – W080° 29.039'. The main tower is a manned position. The flank tower is not typically manned but could be if backup M2 scoring procedures are in use. The main EC complex (Beefeater) located approximately 1,000 feet north of the main tower is also a manned position.

2.1.1. Capabilities. The range includes two target arrays containing a conventional target, tactical targets and strafe targets for aircrew training in delivering inert practice bombs, rockets and 20/30mm bullets. The Electronic Combat facility provides electronic warfare (EW) training to aircrews. It uses the AN/MST-T1A Multiple Threat Emitter System (MUTES), AN/MST-T1(V) Mini-Multiple Threat Emitter System (Mini-MUTES) and the AN/VPQ-1 Tactical Radar Threat Generator (TRTG) to simulate real world threat radar systems. Both functions (B&G and EC) are available to all DOD aircraft.

2.1.2. Hours of Operation. Normal hours of operation for both the B&G and EC operations are 0800 - 2230L Monday through Thursday and Friday 0800 - 1300L. All day Saturdays and Sunday afternoons are available upon request. All requests for weekend use will be made at least two weeks in advance and will be approved within budget constraints.

2.1.3. Scheduling Procedures.

2.1.3.1. **(Added)** Range Schedule Requests. All range schedule requests will be forwarded to 20 OSS/OSOS, 438 Killian Ave., Shaw AFB, SC 29152-5510, DSN 965-1118/1119, commercial (803) 895-1118/1119 or [20OSS.WingScheduli@us.af.mil](mailto:20OSS.WingScheduli@us.af.mil) for entry into the **Center Scheduling Enterprise** (CSE). Requests must be received not later than the first day of the month for the next month's schedule (e.g., June requests must be received by the 1<sup>st</sup> of May). Monthly printed schedules are not provided.

2.1.3.2. **(Added)** Open Range Periods. Open range periods on the weekly schedule are available to any DOD user, provided the type aircraft and mission are compatible with the range. Contact 20 OSS/OSOS at least 24 hours prior to the desired range time. If after normal duty hours (0730 - 1630L), contact Shaw AFB Command Post (DSN 965-5850/5851).

2.1.3.3. **(Added)** Changes to Range Schedule. Any changes to the schedule for a range period will be coordinated through 20 OSS/OSOS. For changes or cancellations on holidays, non-duty days, or after normal duty hours contact Shaw AFB Command Post (DSN 965-5850/5851) at least one hour prior to the approved range period.

2.1.3.4. **(Added)** Bombing & Gunnery mission specific information can be coordinated through the RCO at DSN 965-2597 or Commercial (803) 895-2597.

2.1.3.5. **(Added)** Short Notice Cancellations. For range scheduling purposes, a short notice cancellation is defined as 48 hours prior to the scheduled mission or the minimum time needed for another user to prepare a mission.

## 2.2. Restrictions.

2.2.1. Common/General. Do not overfly manned positions (Range complex located on northwest section of the range). Remain within the boundaries of R-6002 and/or Poinsett Low Military Operation Area (MOA) when activated.

2.2.2. Range. The Poinsett Bombing and Gunnery range is located on the northwest edge of R-6002. Shaw's extended runway centerline passes less than ½ mile from R6002's northwestern corner. FAA Regulations require a three (3) mile buffer between instrument flight rules (IFR) aircraft and restricted areas. At times, aircraft working on the range may be restricted above an altitude to accommodate IFR arrivals/departures at Shaw.

2.2.3. Airspace. Poinsett airspace consists of restricted area R-6002 and the Poinsett MOA. Note that Shaw AFB class C airspace extends 5 DME from Shaw AFB, from SFC-4,200 feet mean sea level (MSL) is not included with R-6002 airspace. R-6002 is controlled by the RCO while the Poinsett Bombing & Gunnery range is active. See Attachments 4 and 5.

2.2.3.1. **(Added)** R-6002 is divided into three altitude blocks; (A) surface up to but not including 13,000 feet MSL, (B) 13,000 feet MSL up to but not including FL 180, and (C) FL 180 up to and including FL 230. This division of airspace allows ATC to use portions of the restricted area that are not active with aircraft. Airspace above 10,000 feet MSL will be called up only when requested by the flight leader and may require several minutes to activate. Flight leads should ask RAPCON directly or RAPCON via the RCO for the airspace they need. Only the airspace necessary for the mission should be activated.

2.2.3.2. **(Added)** Range Holding. Standard visual flight rules (VFR) holding is on the Shaw (CH 38) 195°R, 20-30 DME. See Rimini Bridge (N33° 39'/W080° 31.8') in [Attachment 2](#). Contact the RCO for range entry and traffic advisories on other aircraft entering or leaving the range. Holding is authorized within R-6002 above the employment pattern for other scheduled range fighters when approved by the RCO, and the flight currently on range. On-range holding must be in VFR conditions at altitudes assigned by the RCO or Shaw Approach Control. If IFR holding is required prior to range entry, contact Shaw Approach Control/RAPCON (118.85 / 285.4 / 225.4.)

**2.3. Range and Military Operating Area (MOA).** The Poinsett MOA is attached to R-6002 to the south. This area is used by numerous VR and IR routes. This area must also be activated for First Run Attacks on the southern target array. Extreme caution should be taken in this area because it is not visible to Shaw Approach's radar nor by the RCO in the main tower. It extends from 300 feet above ground level (AGL) to 2,500 feet MSL and is defined by the following points:

**Table 2.1. Poinsett MOA.**

(See also Attachment 5)			
	from	N 33° 51.343'	W 080° 23.655'
	to	N 33° 38.010'	W 080° 16.322'
along the Shaw TACAN (CH 38) 23 NM arc to		N 33° 37.259'	W 080° 37.988'

	to	N 33° 42.140'	W 080° 35.833'
	to	N 33° 47.383'	W 080° 31.350'
	along the R-6002 boundary to	N 33° 44.467'	W 080° 31.683'
	along the R-6002 boundary to	N 33° 46.433'	W 080° 23.183'
	along the R-6002 boundary to	N 33° 51.343'	W 080° 23.655'
<b>NOTE:</b> VR-87, VR-88, VR-97, IR-35, IR-36 and SR-166 also transit or connect to this MOA.			

2.3.1. Air-to-Ground Range. Poinsett Range consists of 12,521 acres of Government owned land. Range terrain is flat, with a maximum elevation of 224 feet MSL. Ground cover is primarily pine forest broken by swamps. A 115,000-volt transmission line crosses the range from NW to SE approximately one mile behind the strafe targets. The five power lines are 50 feet above ground level. The range boundaries are depicted in [Attachment 3](#).

2.3.1.1. **(Added)** Targets. Poinsett Range is a dual range conventional facility that has scoreable targets for bombing, rocket firing, and strafing. Poinsett ECR also has Maverick (TGM-65) captive missile targets, three IR enhanced Maverick targets, and tactical targets in both the northern and southern target arrays. Bomb scoring is available both day and night on all Poinsett targets when using "Hot Spot" bombs. When using "Cold Smoke" (Chemical smoke), scoring is available only during daylight hours. All bomb scores are given in meters, unless specifically requested to be scored in feet. The northern target array is depicted in [Attachment 6](#).

2.3.1.2. **(Added)** Conventional Circle Target. The target is a vehicle outlined in the center of two circles of white tires. The inner circle of tires has a radius of 75 feet from the target. The outer circle of tires has a radius of 150 feet from the target. The foul line and run-in line are illuminated for night delivery. The coordinates of the target are N33° 49.998' and W80° 29.202' (WGS 84). Target elevation is 220 feet MSL. Circle target is used for manual bombs, expanded mode and degraded system bombs. **NOTE:** DO NOT OVERFLY RANGE BUILDINGS.

2.3.2. Tactical Range. There are three tactical range targets located near the conventional circle and six tactical range targets (TGT # 105 is not bombable) comprising the southern target array located approximately two miles south of the conventional circle. See Attachment 9 for target coordinates.

2.3.2.1. Maverick Missile Targets. The targets are military vehicles located throughout the range and aircraft just east of the main tower. These targets are used for captive air to surface training only. Firing or expending ordnance on these targets is prohibited.

2.3.3. Electronic Range. The Electronic Combat facility provides electronic warfare (EW) training to simulate real world threat radar systems for various DOD aircrews. See [Chapter 4](#) for details.

2.3.5. MOA. See [paragraph 2.3](#) and [Table 2.1](#).

## Chapter 3

### OPERATIONS/WEAPONS DELIVERY PROCEDURES

**3.1. Overview.** This chapter describes the Poinsett Air-to-Ground Bombing & Gunnery range, including procedures, restrictions, target descriptions and events.

3.1.1. **(Added)** All users of Poinsett Range must perform a dry/familiarization pass before weapons delivery (day or night) for any of these conditions: no specific AFI11-2MDSV3 operating procedures, the aircrew/aircraft operator's initial use of the range (regardless of class) or if the aircrew/operator has not frequented the range within 1 year.

**3.2. Authorized Ordnance.** Only training/inert ordnance is authorized on the Poinsett B&G range, specifically training bombs (BDU-33, MK-76, MK-106, BDU-48, MK-82/83/84, GBU-12, GBU-31 and GBU-38), 2.75 inch inert rockets and TP ammunition (20mm, 30mm). White phosphorous and live ordnance are prohibited. Limited small arms training (.50 cal, 7.62mm and 5.56mm) and helicopter door gunnery operations may be conducted on range.

3.2.1. **(Added).** Authorized Deliveries. See Poinsett SharePoint: <https://cs3.eis.af.mil/sites/AC-OT-00-43/default.aspx>. For SharePoint access contact DSN 965-2585.

**3.3. Restrictions, Master Arm Procedures, Limitations and Footprint Data.** Due to the range physical property limitations the master arm switch must be placed to "ARM" only when an inadvertent release would be contained on range.

3.3.1. **(Added)** Heavyweight. GPS or Laser Guided ordnance is allowed on target #101 or target # 104 in the south target array. **(Laser Guided or GPS Guided ordnance requires prior coordination with the RCO or ROO.)**

3.3.2. **(Added)** Rocket Events. Rocket events are authorized on the conventional circle target only.

3.3.3. **(Added)** Manual Delivery. All manual, expanded mode, degraded mode ordnance deliveries will be dispensed on the conventional circle or the TAC III targets when on the northern array or on any southern array target.

3.3.4. **(Added)** Flares. Airborne flares will not be used without permission of the RCO. Self-protection flares may be dropped IAW AFI11-214. Flares will be dropped in the vicinity of the conventional circle on a heading of 164° or 344° +/- 5 degrees, to the maximum extent possible release flares over the open field. Flares may not be dropped if the fire code is one (1) or higher or the crosswind component is 25 knots or higher.

3.3.5. **(Added)** No ripple releases without coordination with and approval of RCO/JTAC". Ripples releases can only be employed on specific targets contact the RCO at (803) 895-2597 or DSN 965-2597 prior to departure for specifics.

3.3.6. **(Added)** HARBs (BDU-33/ Mk-76) only, can be deployed on Conventional Circle Target or Target # 101.

3.3.7. **(Added)** Flight patterns and footprints for JDAM, Laser Guided and Heavy weight weapons cause them to be treated differently from other events. Inert MK-82 (BDU-50), inert

MK-83/84, GBU-12, GBU-31 and GBU-38 are only allowed on target #101 or target #104 in the south target array dependent on the weapon and the delivery. Contact the RCO at (803) 895-2597 or DSN 965-2597 prior to departure for specifics.

3.3.8. **(Added)** No live ordnance.

3.3.9. **(Added)** Target Attack Procedures.

3.3.9.1. **(Added)** North Target Array Procedures:

3.3.9.1.1. **(Added)** Attack heading for all hot passes will be 164° (+/-20°) mag. Avoid noise sensitive areas in the pattern. Do not overfly towers and the operations complex. For pattern depictions, see [Attachment 8](#).

3.3.9.1.2. **(Added)** All hot passes will be from a left-traffic pattern.

3.3.9.1.3. **(Added)** For noise abatement, a minimum of 2,000 feet AGL will be maintained on downwind leg, with a descending base turn to 500 feet AGL. (See [Attachments 8](#) and [9](#)).

3.3.9.2. **(Added)** South Target Array Procedures:

3.3.9.2.1. **(Added)** Target # 105 is a No-drop target.

3.3.9.2.2. **(Added)** If using Poinsett Low MOA for attacks, wait until crossing into R-6002 before climbing above 2,500 feet MSL, aircraft must be within the confines of R-6002 before arming the Master Arm switch.

3.3.10. **(Added)** Scoreable Targets. All targets in the Northern and Southern Target Arrays are scoreable by the Weapons Impact Scoring System (WISS). In a case where the WISS is inoperable for an extended period, manual scoring of bombs may be available on the Northern Target Array. As a reference for air scoring bombs, the diameter of the cutout in the trees surrounding target #101 is approximately 585 feet. For target #102 - #106, the distance between targets is approximately 600 feet.

**3.4. Laser or Directed Energy Operations.** Prior coordination with the RCO is required for operations involving the use of airborne lasers at Poinsett, contact the RCO at (803) 895-2597 or DSN 965-2597 prior to departure with estimated range time and intentions. If unable to coordinate prior to departure aircrews may experience up to a 10 minute delay if coordinating real-time with the RCO before clearance may be issued. This allows the RCO time to sterilize/safe the range for the operation.

3.4.1. Laser Systems. Airborne lasers listed in [paragraph 3.4.2](#) can be used anywhere on Poinsett Range. Ground based lasers are authorized from specific geographical points to specific Laser Target Areas (LTAs) and are listed in the Poinsett Range Laser Safety Survey. This survey is available on the Poinsett SharePoint: <https://cs3.eis.af.mil/sites/AC-OT-00-43/default.aspx> For SharePoint access contact DSN 965-2585.

3.4.2. Airborne. AN/AAQ-14 LANTIRN, AN/AAQ-28 LITENING II, and AN/AAQ-33 ATP SNIPER XR targeting pods.

3.4.3. Ground Laser Operations . See Poinsett SharePoint: <https://cs3.eis.af.mil/sites/AC-OT-00-43/default.aspx> For SharePoint access contact DSN 965-2585.

**3.5. Night Operations.** Night entry/exit will be coordinated through Air Traffic Control (ATC). Entry will usually be made from the depicted holding pattern. If required due to weather, Shaw

RAPCON will provide radar descent from holding to 2,000 feet MSL. If unable to maintain VFR, hold as directed by Shaw RAPCON and request IFR clearance IAW departure procedures. In the event of lost communications prior to receiving IFR range departure clearance, squawk IAW FLIP and proceed via flight planned route or at 3,000 feet MSL to the SSC TACAN 220/10 (PINIE) for Runway 04, or 040/10 (GABLE) for Runway 22 and execute a straight-in TACAN approach for a full-stop landing at Shaw.

3.5.1. Night Lighting. The Range Safety Lighting System (RSLS) consists of twenty-one night vision goggles (NVG)/Night visible lights. These lights, ten on the North Target Array and eleven on Southern Target Array, outline the selected target impact areas. The blue marker and IR compatible lights are both visible and “NVG friendly.” Brightness and steady/flash sequence are controlled from the tower. Lighting for the Conventional Circle in the North Target Array consists of single electric lights in the target area at the 3, 6, 9, and 12 o'clock positions around a 300 foot diameter circle. The run-in line and foul line have electric lighting, forming an inverted "T" to the target center. If requested, the RCO can turn off or stepdown ground illumination markers in order to optimize use of NVG operations.

3.5.2. NVD (Night Vision Devices). Low angle strafe (LAS) is prohibited after sunset. High angle strafe is authorized day and night.

3.5.2.1. **(Added)** Each user will specify to the RCO on initial contact what type of lighting/marketing scheme is required for their mission. The lights are adjustable from the tower so changes are possible during the mission for weather or to meet multiple training objectives. The RCO will ensure lighting/marketing scheme is set as requested and inform aircraft of issues that prohibit planned use of specific targets at night. (See [Attachment 11](#)).

3.5.2.2. **(Added)** IAW AFI11-214: During night time operations, any target on the range can be used for night vision device (NVD) events. A maximum of three aircraft may be in the weapons delivery pattern at any one time, except during NVD operations. A maximum of four aircraft may be in the weapons delivery pattern if all pilots in the 4-ship are using NVDs.

3.5.3. Infrared Enhanced Targets. There are two heated IR Maverick targets located at Poinsett, which are two heated M60 tanks (of four tanks) located just to the southwest of the flank tower. They are electrically heated to maximize IR signature.

**3.6. Unmanned Threat Emitters.** See [paragraph 4.8](#).

**3.8. Helicopter Operations.** Helicopter operations are permitted but must be pre-coordinated and briefed.

**3.9. Weather.** Range minimums for operations, daytime 1500/3, night 3000/5. Range weather minimum (ceiling/visibility) for each weapons delivery event will be IAW the most restrictive instruction for the user's aircraft and organization.

**3.10. Minimums and Fouls.** Minimum/Foul altitudes will be IAW the appropriate aircraft or organizational instruction.

3.10.1. **(Added)** IAW AFI11-214, *Air Operations Rules and Procedures* and aircraft 11 series instructions, fouls will be charged by the RCO for the following:

3.10.2. **(Added)** Violation of flight or range safety. (note: this would include delivering ordnance from other than the published final attack heading)

3.10.3. **(Added)** If an aircraft passes below the minimum recovery cue/altitude as established in AFI 11-2MDS series instructions or this instruction for the event being flown.

3.10.4. **(Added)** An unintentional double-firing burst versus a single target or strafing past the foul line. (note: A-10 aircraft are authorized to fire a double burst during two-target strafe).

3.10.5. **(Added)** A lazy recovery from a LAS/LRS/TTS pass resulting in the aircraft descending below 75 feet.

3.10.6. **(Added)** Aircraft expending on wrong target.

3.10.7. **(Added)** Aircraft expending ordnance without clearance.

**3.11. Emergency Procedures.** In the event an aircraft crashes on or near the range, the RCO will execute the "Aircraft Accident or Incident" checklist (located in the RCO Ready Reference File). This will ensure, at a minimum, the range is secured and closed, the firefighters on duty are notified and the pertinent Shaw AFB agencies are notified. Shaw RAPCON will notify Shaw tower of all information concerning an aircraft accident on Poinsett Range for primary crash net activation. Poinsett Government personnel will notify 20 FW/SE, 20 OSS/CC and 20 OSS/OSO.

3.11.1. Emergency Airfields. See Attachment 10 for divert airfield information.

3.11.2. Dropped Object and Inadvertent Release. In the event of an Off-Range Inadvertent or Unintentional Release, call the Command Post and report type of object, aircraft position and time, damage if known, and aircraft's estimated time of arrival at recovery base.

3.11.3. Hung Ordnance and Unsafe Gun Procedures.

3.11.3.1. **(Added)** If hung ordnance is confirmed, avoid populated areas when departing the range and proceed with hung ordnance recovery to base of intended landing.

3.11.3.2. **(Added)** If IFR recovery is desired, contact RAPCON over the range prior to exit for hung bomb ground track vectors to a straight-in approach.

3.11.3.3. **(Added)** If VFR hung bomb pattern is desired, use the same procedures outlined in [paragraph 3.11.3.1](#) and advise RAPCON on initial contact that you are "hung bomb, VFR straight-in". If unable to proceed VFR, contact RAPCON prior to exiting range and request IFR vectors.

3.11.4. Jettison Procedures. Poinsett Range can be used for the emergency jettison of ordnance and associated suspension equipment. The VFR jettison area for munitions is the conventional circle (See [Attachment 3](#) and [Attachment 8](#)). If IFR, use the Shaw TACAN 184° radial/10 DME heading 184°. RAPCON is capable of vectoring an aircraft over this location, but the pilot must insure his ordnance will impact in the large swamp located at that position.

3.11.5. **(Added)** Radio Failure.

3.11.5.1. **(Added)** A pilot with no radio (NORDO) will make a dry pass by the range tower at pattern altitude (for event being flown), rocking the wings to indicate radio failure. The pilot will then break in the direction of traffic for rejoin as briefed by the flight leader.

3.11.5.2. **(Added)** Emergency with Radio Failure. Pilots experiencing an emergency with radio failure will fly a dry pass by the tower, if practical, on the attack heading while rocking wings, and break to the west, climbing to 2,500 feet or above if time and nature of emergency permit. If

the emergency dictates, a pilot may clear the range from any position in the pattern and proceed directly to the base of intended landing.

3.11.5.3. **(Added)** Radio Failure While Dropping on the Southern Array. Fly abeam the Range Tower, if possible, while rocking wings. The RCO will notify RAPCON of radio failure or other known information.

3.11.6. **(Added)** On Range Emergencies. In the event of an emergency on range, the pilot should pass pertinent information to the RCO who will in-turn alert Shaw RAPCON via the hotline and pass the pilot's intentions and nature of emergency.

## Chapter 4

### ELECTRONIC WARFARE RANGE/ELECTRONIC WARFARE SITE

**4.1. Purpose.** Poinsett ECR provides Electronic Warfare (EW) training to military aircrews. Poinsett ECR simulates ground-based elements of a hostile air defense system. It is used primarily for training aircrews to recognize and counter air defense threats while performing their missions.

**4.2. Scheduling.** All scheduling matters are handled through 20 OSS/OSOS (DSN 965-1118/1119). Electronic Warfare issues can be coordinated through Beefeater at DSN 965-2581 (voice), DSN 965-2592 (FAX) or Poinsett Operations [poinsett.range@us.af.mil](mailto:poinsett.range@us.af.mil).

#### 4.3. Events.

4.3.1. **(Added)** SEAD/DESTRUCTIVE SEAD or HARM Training. The best airspace available for these type missions using Poinsett EW assets is in Bulldog MOA. The Gamecock C or D MOA is also available for this type of training, though it is not currently as dense threat-wise as the Bulldog MOA.

4.3.2. **(Added)** Passive electronic countermeasures (ECM). Provides a realistic threat environment for aircrews to observe and counter or maneuver against any threat presented by the emitters. HARM missions are passive ECM missions and no score is given.

**4.4. Restrictions.** Users of the Poinsett EC operation will need a copy of ACCI11-456(S/NF) Electronic Combat Training and ACC EMCON - procedures (U). Do not discuss on the radio or telephone the type of signal with a specific name (E.g. SA-X). The unclassified way to reference signals will be in generic terms such as 2, 3, or by use of the unclassified two or three character signal identifier.

**4.5. Communications.** The UHF radio frequency is 354.3 MHz, call sign "Beefeater" for Poinsett and Gamecock MOA EW activity. For EW activity in the Bulldog MOA, Beefeater utilizes a remote UHF radio system operating at 343.75 MHz for air-to-ground communications. A multi-channel VHF radio (non-secure voice mode) is available to operate on the participating flight's squadron's frequency, if requested prior to the mission.

**4.7. Operations.** Operating hours are 0800-2230L, Monday through Thursday, and 0800-1300L Friday. Times outside this window will be addressed on a case by case basis, but every effort will be made to support the mission. Users should schedule Poinsett EW time with 20 OSS/OSOS (DSN 965-1118/1119). After EW time has been scheduled with the 20 OSS/OSOS, call Beefeater at DSN 965-2581 and provide operations personnel with the following information:

4.7.1. **(Added)** Call Sign and Squadron.

4.7.2. **(Added)** Number/Type Aircraft.

4.7.3. **(Added)** Scheduled Block/VUL Time in local.

4.7.4. **(Added)** Type mission and emitter support. EW request sheets are located on the Poinsett SharePoint: <https://cs3.eis.af.mil/sites/AC-OT-00-43/default.aspx> For SharePoint access contact DSN 965-2585.

4.7.5. **(Added)** IFF mode 1, 2 or 3 (this is how aircraft are tracked).

4.7.6. **(Added)** Flight Radio Frequency. *NOTE:* The above information can be faxed to Beefeater using the Poinsett EW request Sheet. Fax number is DSN 965-2592.

**4.8. Simulators.** The primary threat emitters of the Poinsett ECR are as follows:

4.8.1. **(Added)** AN/MST-T1A Multiple Threat Emitter System (MUTES). The MUTES is a radar simulator capable of simultaneously emitting five signals from a total inventory of over 100 signals. The MUTES tracks modes 1, 2, or 3 Identify Friend or Foe (IFF) therefore, aircraft maneuvers will not defeat the MUTES.

4.8.2. **(Added)** AN/MST-T1(V) Mini-Multiple Threat Emitter System (Mini-MUTES). The Mini-MUTES is a smaller, remotely located version of the MUTES. The Mini-MUTES is also an IFF tracker. A Mini-MUTES Master Control Group (located on Poinsett Range) operates five Remote Emitter Units (REUs). A typical REU has three to four transmitters.

4.8.3. **(Added)** AN/VPQ-1 Tactical Radar Threat Generator (TRTG). The TRTG is a small, highly mobile AAA/SAM simulator system. It is an automatic tracking system that is a skin tracker mounted in a small, self-contained trailer mounted S-280 shelter.

4.8.4. **(Added)** GTR-18 Smokey SAM Simulator or Visual Cueing System (VCS). Smokey SAMs are rockets made of cardboard and styrofoam, propelled by a pyrotechnic device up to approximately 1,500 feet AGL. The associated launcher can ignite up to four rockets. The VCS is designed to provide aircrews with a visual indication of a surface-to-air missile or man pad missile launch. Depending on availability of personnel and launchers, Beefeater can provide this training from locations only from within the physical Poinsett Range boundaries.

**4.9. Feedback.** Post mission reports and/or run histories with emitter on/off times are available upon request from Beefeater. Contact Beefeater prior to the scheduled mission with requirements and desired method of post mission transmission (E-mail, FAX, etc.).

## Chapter 5

### RANGE CONTROL OFFICER PROCEDURES

**5.1. Responsibilities.** The RCO is charged with the safe accomplishment of missions flown on the range. Each RCO must strictly enforce established range flying procedures and aircraft weapons delivery minimums. Specifically, the RCO is responsible for:

5.1.1. **(Added)** Controlling air and ground traffic on the range.

5.1.2. **(Added)** Inspecting range facilities.

5.1.3. **(Added)** Authority. The RCO is the final authority concerning real-time aircraft operations at Poinsett Range.

5.1.4. **(Added)** Range Activities. The RCO will monitor all range activities during the tour of duty. The RCO will supervise scoring, bomb plots, written reports and personnel access to various areas of the range.

5.1.5. **(Added)** RCO Quick Reaction Checklist and Read File. 20 OSS/ OSORG produces and updates as necessary a quick reaction checklist and RCO Read File containing current range information. RCOs will review and initial the read file weekly. Any range user desiring to place items of interest in the read file should forward them to 20 OSS/ OSORG, 438 Killian Ave., Shaw AFB, SC 29152-5046 or [20oss.poinsettrco@us.af.mil](mailto:20oss.poinsettrco@us.af.mil), for inclusion.

**5.2. Checkout and Certification Procedures.** 20 OSS/OSO and/or the range operating contractor are the certifying agencies for RCO checkouts. Checkout of new RCOs will be conducted in accordance with AFI 13-212V1, ACC SUP to AFI 13-212V1 and the RCO read file maintained at the Bombing and Gunnery Administration Office.

**5.3. Range Control Officer (RCO) Scheduling.** Tour of Duty. IAW AFI 13-212V1 ACCSUP RCOs may not control aircraft for more than 12 hours during any 24 hour period and will not control aircraft for at least 12 hours after being released from duty. The RCO will report to the Poinsett ECR at least one hour prior to scheduled range periods to accomplish an inspection of the range and receive a briefing by range personnel on the current condition of the range targets and equipment.

**5.4. Notification and Transportation.** Range Status Reports. The RCO will transmit by telephone or electronic media the current and forecasted status of the range to the flying squadrons to include:

5.4.1. **(Added)** Current Fire code.

5.4.2. **(Added)** Operational status of scoring equipment.

5.4.3. **(Added)** Any flight restrictions.

5.4.4. **(Added)** Notification of Burnt Gin (Handicapped Summer Camp) Sessions. (See [paragraph 5.10](#))

**5.5. Range Opening.** The RCO will conduct an inspection of all ground facilities before opening the range. Accomplish opening and closing in accordance with appropriate checklists. Visually inspect targets for serviceability.

5.5.1. **(Added)** The RCO will call RAPCON, not later than 30 minutes prior to the first range period and reserve the range airspace. The RCO is a real time airspace manager and should use care not to activate airspace that will not be used (i.e., weather is not sufficient for Poinsett operations). The actual weather and altitude required by users are the determining factors in which altitude blocks are activated.

5.5.2. **(Added)** All airspace activation/deactivations will be done with Shaw RAPCON during RAPCON published hours.

5.5.3. **(Added)** Digital Voice Recorder. The RCO will ensure all ground-to-air and land mobile radio (LMR) communications on the range are recorded. DVD's will be numbered in sequence, and major changes, such as weather and RCOs, will be noted as they occur. DVD's will be held a minimum of seven days prior to reuse. The first DVD used each day will contain range name, date, RCOs name, time and current weather. At each RCO shift change record the name of the RCO and the current weather.

5.5.4. **(Added)** Range Weather. The RCO will receive a complete weather briefing via all available means, by telephone or electronic media, not later than 30 minutes prior to activating the range. If the Poinsett weather differs significantly from the Shaw observed weather, the RCO will obtain a pilot weather report (PIREP) from a range user. The RCO will use this PIREP to determine range activation or closure. Additionally, the RCO will relay PIREPS to Shaw Approach Control, as range traffic permits.

**5.6. Range Schedule.** The RCO enforces the schedule on the range. When a flight arrives late, the RCO will advise the flight leader of the scheduled time remaining. The RCO will not allow a flight to extend their range period if a scheduled flight is inbound, unless the inbound flight concurs.

**5.7. Aircraft Control.** All aircraft operating on Poinsett Range require radio contact with the RCO. Poinsett B&G range UHF frequencies are 264.7 MHz primary and 302.25 MHz backup. All aircraft and the RCO must be on the same frequency.

5.7.1. **(Added)** On initial contact with the RCO, the flight leader will pass flight line-up to include call sign, pilot/crew numbers, tail numbers, and weapons delivery events as defined in the appropriate volume of MCI 11 series. This series will be used to identify the events to be flown (ex: visual level delivery (VLD), low altitude toss, low angle low drag, low angle high drag, dive bomb or high altitude dive bomb). Simply transmitting dive angles ("We'll be doing 30's, 20's, and 10's.") is not sufficient. This step is not required if the above information was previously passed telephonically and there have been no changes.

5.7.2. **(Added)** The RCO will respond with altimeter setting, clearance to operate between allotted altitudes (if not already received), current bird condition obtained from <http://www.usahas.com/> for the airspace used (R-6002/Low MOA) and any pertinent range restrictions. Each flight member will acknowledge in order.

5.7.3. **(Added)** The flight lead will retain the ATC assigned squawk code and wingmen will squawk Mode 3, code 4001, 4002, etc. while operating in R-6002.

5.7.4. **(Added)** Range Entry . All aircraft must receive clearance from the RCO directly or from the RCO through Shaw Approach Control prior to entering R-6002 airspace.

5.7.4.1. **(Added)** McEntire Entry. Aircraft filing IFR or VFR from McEntire ANGB to Poinsett Range may proceed direct to Poinsett Range when in contact with and cleared by Shaw Approach Control. If filing VFR, the McEntire, Poinsett and en-route weather must be VFR.

5.7.4.2. **(Added)** Shaw Entry. Aircraft departing VFR from Shaw may proceed direct to Poinsett Range after coordinating entry with RCO and Shaw RAPCON. Weather at Shaw, R-6002, and en-route must be VFR.

5.7.4.3. **(Added)** Entry from VFR Flight or Military Training Route (MTR) Structure. Multiple MTRs terminate on R-6002. Flights operating VFR or on MTRs may enter R-6002 if the following conditions are met:

5.7.4.3.1. **(Added)** Flight is scheduled for the range period.

5.7.4.3.2. **(Added)** RCO clears the flight on the range. (RCO must confirm with Shaw Approach Control that the range airspace is clear prior to issuing entry clearance.)

5.7.4.3.3. **(Added)** Flight lead will ensure de-confliction from aircraft departing the range or aircraft holding. (See [Attachment 2](#))

5.7.4.3.4. **(Added)** Flights desiring VFR entry are reminded of Shaw AFB's Class C airspace. Clearance from Shaw Approach Control is required to fly within 10 distance measuring equipment (DME) between 1,500 – 4,200 feet MSL and within 5 DME from the surface to 4,200 feet MSL.

5.7.4.3.5. **(Added)** IFR/Night Entry. IFR/night entry will be coordinated through ATC. Entry will usually be made from the depicted holding pattern. If required due to weather, Shaw RAPCON will provide radar descent from holding to 2,000 feet MSL. If unable to maintain VFR, hold as directed by Shaw RAPCON and request IFR clearance. In the event of lost communications prior to receiving IFR range departure clearance, squawk IAW FLIP and proceed via flight planned route or at 3,000 feet MSL to the SSC TACAN 220/10 (PINIE) for Runway 04, or 040/10 (GABLE) for Runway 22 and execute a straight-in TACAN approach for a full-stop landing at Shaw.

5.7.5. **(Added)** Range Entry Over a Working Flight:

5.7.5.1. **(Added)** To maximize allotted range time, flights may request range entry over the preceding flight. Minimum requirements for entry into R-6002 over a working flight are:

5.7.5.2. **(Added)** The RCO, the on range flight and the entering flight must all approve the request for entry above a working flight.

5.7.5.3. **(Added)** Minimum altitude for a flight entering the range while another flight is working is 4,000 feet MSL.

5.7.5.4. **(Added)** Entry altitude must be at least 2,000 feet above the pattern being flown by the on range flight or 2,000 feet above their planned apex altitude for pop-ups.

5.7.5.5. **(Added)** The entering flight will be cleared down to working altitude by the RCO when the preceding flight has exited.

5.7.6. **(Added)** Range Departure.

5.7.6.1. **(Added)** IFR/Night Departure. Those aircraft wishing to depart the range on an IFR clearance will notify the RCO upon entering the range with their departure clearance request.

5.7.6.2. **(Added)** VFR Departures. Flights departing VFR upon completion of range activity will notify the RCO and squawk mode 3/1200. All aircraft exiting VFR need to exit the range to the south or east outside 10 NM from Shaw AFB. Aircraft recovering at Shaw or McEntire contact Shaw Approach Control outside of 10 DME for entry into Shaw AFB Class C airspace.

**5.8. Range Fouls.** See [paragraph 3.10](#).

**5.9. Ground Party Control.** All ground operations or operations other than ordnance delivery must have prior approval of the range operations officer. The RCO will control all activity within the fenced area any time the range is open.

**5.10. Restricted Operations.**

5.10.1. **(Added)** Do not use afterburner while low level on the Poinsett ECR unless required for safety of flight. Afterburner use during pop-up maneuvers is allowed if needed to comply with airspeed restrictions required by an aircraft or organizational instruction. For noise abatement purposes, do not initiate afterburner until established in the pop-up maneuver climb to roll-in.

5.10.2. **(Added)** There are areas on the range that have been identified as noise sensitive areas; avoid them when below 2,500 feet AGL. Aircraft practicing AGM-65 tactics must pay close attention to these areas. See [Attachment 7](#) and [Attachment 9](#).

5.10.3. **(Added)** Aircrews are restricted to 2,000 feet AGL or above north of N33° 53.5' and reminded to pay particular attention to Poinsett's northern boundary. The area outside of Poinsett's northern airspace is heavily populated and very noise sensitive. The intent is to have no low level flying north of McCray Lake.

5.10.4. **(Added)** Aircrews are restricted to 2000 feet above or 4000 feet lateral of Burn Gin Lake (DEHC Handicapped Children's Camping) when in session (normally June and July). Camp is located approximately 5 miles north of Poinsett's northern boundary, identified by kidney shaped lake.

5.10.5. **(Added)** Fire Prevention Procedures: Range issued Fire Codes signify increased potential for inadvertent fires on range. The RCO determines the Fire Code based on the forecasted daily wind, humidity and KBDI (Drought Index) from the SC State Forest Commission. The range issued fire codes are depicted in [Table 5.1](#). The KBDI is based on conditions in Colombia, SC and provides general drought conditions for the area, conditions at Poinsett can and will be slightly different. The Daily Fire Code will be a baseline for operations. If the RCO determines the likelihood of a fire on range is lower, the operation may be approved i.e. rocket and flare use at Fire Code 1.

**Table 5.1. Fire Codes.**

Fire Code 0	Normal Operations
Fire Code 1	Cease Flares, Rockets and Smokey SAMs
Fire Code 2	Cease Flares, Rockets, Smokey SAMs, Cold Smoke or Dry Passes on the Southern Target Array, Normal Operations on the Northern Target Array, Strafe OK
Fire Code 3	Cease Flares, Rockets, Smokey SAMs, Cold

	Smoke or Dry Passes on all targets, Strafe OK
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5.10.6. **(Added)** Wind Restrictions: The following range restrictions apply for winds exceeding 25 and 40 knots.

5.10.6.1. **(Added)** Strafing will not be permitted when the crosswind exceeds 25 knots.

5.10.6.2. **(Added)** The range will be closed and the tower vacated when the sustained surface winds exceed 40 knots.

5.10.6.3. **(Added)** The RCO may stop strafing or maintenance anytime he/she decides the wind presents a safety hazard, regardless of velocity or direction.

**5.11. Strafing Operations.** Five targets, scored by the Improved Remote Strafe Scoring System (IRSSS) are available. All five targets are located west of the main tower and are numbered 1 through 5, from east to west and north to south. Target 5, which sits approximately 300 feet south of, and between targets 2 & 3, is for High Angle Strafe only. The foul line is 2,000 feet short of the targets and is marked by white tires and a road running east to west, in-line with the main tower.

5.11.1. **(Added)** Authorized Ordnance and deliveries. 20 and 30mm TP ammunition (no tracers).

5.11.1.1. **(Added)** Low angle strafe on targets 1 through 4.

5.11.1.2. **(Added)** High angle strafe will be performed only on strafe target 5, the conventional circle, N. TAC or S. TAC.

5.11.1.3. **(Added)** A-10 aircraft may perform long range strafe (LRS) and two target strafe (TTS) with the following restrictions:

5.11.1.3.1. **(Added)** Two target strafe will be on targets three and four. Final attack heading must be 170° or less on this event. Pilots will roll in for their first burst aligned with the run-in line for target four and fire on target three, then transition to target four for their second burst, thereby minimizing heading changes. The intent is to prevent pointing at the range towers.

5.11.1.3.2. **(Added)** The maximum open fire range for the 30mm cannon is 6,000 feet from the target. A ground reference for 6,000 feet is the dirt road approximately 500 feet south of Elliot Lake.

## **5.12. Range Visitors.**

5.12.1. **(Added)** In accordance with AFI 13-212V1, public access to hazard areas is prohibited and should be limited to Essential Personnel. Essential Personnel as defined in AFI 13-212V1 Those personnel on a range, not required for ordnance employment, that participate and provide essential support for the range test, training or evaluation mission. Examples include maneuver elements, opposition forces, instructors, evaluators, range personnel conducting maintenance, etc. All unauthorized personnel entering any range property unescorted are subject to trespass charges and prosecution and being barred from range property.

5.12.2. **(Added)** Public visitors are only allowed on the range during daytime operations and the FPCON is no greater than "B". All visitors will be required to sign the visitor's log on arrival.

5.12.3. **(Added)** Civilian vehicles are permitted on the range when authorized by the Range Manager or ROO. Off road vehicles are only allowed on range for performance of official duties.

5.12.4. **(Added)** The public is allowed on range property (other than hazard areas) when participating in an Air Force sponsored program. The Range Operations Officer must approve any activity on any portion of range property during other than normal duty hours.

5.12.5. **(Added)** Any person(s) required to be on range property for activities conducted away from the range compound must have an operational land mobile radio (LMR) on range frequency and granted permission from the Range Operations Officer or Range Control Officer prior to conducting the activity.

5.12.6. **(Added)** Firearms will not be allowed on the range except when approved by the Range Operations Officer or required for official duties.

5.12.7. **(Added)** Range personnel must control all access/activity within the fenced impact area at all times.

**5.13. Range Closure.** The RCO has ultimate responsibility to ensure all closing procedures are accomplished in accordance with the Range Closing Checklist.

5.13.1. **(Added)** The range will be closed to visitors anytime maintenance is being performed and there is no scheduled flying i.e., EOD clearances.

5.13.2. **(Added)** The range will be closed during Laser Operations that effect the range compound north of the foul line, to include laser guided and GPS guided weapons deployment.

**5.14. Reports.** The RCO working night shift is responsible for completing the following:

5.14.1. **(Added)** Poinsett Events Log.

5.14.2. **(Added)** Weapons Delivery Scoring Record.

5.14.3. **(Added)** Range Utilization Summary. The range contractor will route these reports through the Government Contracting Officer's Representatives to the appropriate agencies as required by AFI 13-212V1.

**5.15. (Added) Firefighting Responsibilities and Firefighting Procedures.** In the event of fire at the Poinsett ECR the following will occur:

5.15.1. **(Added)** The Range Control Officer or Range Operations Officer will execute the Range Fire or Incident Reporting Procedures checklist (located in the RCO Ready Reference File). This will ensure, at a minimum, the firefighters on duty are notified and the pertinent Shaw AFB agencies are notified of the extent of the fire or incident and any assistance requirements if needed as determined by on-range firefighters. Note: All necessary offices/agencies are notified per the procedure.

**5.16. (Added) Training.** Range personnel require completion of the following additional training prior to performing as a qualified range crew member:

5.16.1. **(Added)** EOD briefing.

5.16.2. **(Added)** Job safety training by the supervisor IAW AFI 91-301, *Air Force Occupational And Environmental Safety, Fire Protection And Health (AFOSH) Program*.

- 5.16.3. **(Added)** Crash/rescue procedures training.
- 5.16.4. **(Added)** First aid/CPR.
- 5.16.5. **(Added)** Evacuation of injured personnel briefing.
- 5.16.6. **(Added)** Fire prevention/fire extinguisher.
- 5.16.7. **(Added)** Vehicle and equipment operation/maintenance.
- 5.16.8. **(Added)** Weapon impact scoring and plotting.
- 5.16.9. **(Added)** Back Up Generator.

**5.17. (Added) Maintenance.** Maintenance and clearance of Poinsett ECR is the responsibility of the 20 FW/CC and range contractor in compliance with the Primary Training Range Operations, Maintenance & Support (O, M&S) contract performance work statement and AFI 13-212V1. The maintenance schedule outlined in this chapter is a minimum requirement and a responsibility of range maintenance personnel. Clearance operations may be required more frequently, depending upon the types and quantities of munitions used and the frequency of target renovation. Maintenance is preventative as well as corrective in nature and is accomplished regularly in order to provide the same quality of target presentation to all users. Emergency maintenance of the range will be performed only when required for mission effectiveness, such as target or microphone replacement and will be at the discretion of the RCO or ROO. When mission requirements dictate use of the range during normal maintenance periods, alternate stand-down periods will be required and will be coordinated with the ROO. Scheduled range closures for maintenance are depicted in **Table 5.2**.

**Table 5.2. (Added) Range Closures.**

Weekly:	Each Friday beginning at 1300L
Monthly:	All day the third Friday of each month (EOD Cleanup)
Annually:	Last two weeks of January and last week of September (EOD Cleanup)

5.17.1. **(Added)** Range Clearance and Explosive Ordnance Disposal (EOD) Operations. In accordance with AFI 13-212V1, AFI 32-3001 *Explosive Ordnance Disposal (EOD) Program* and AFMAN 91-201, *Explosives Safety Standards*, EOD operations will be conducted and are required to remove expended practice munitions and prepare them for salvage. The destruction/disposal of all munitions and the inspection/marketing of all residue will be accomplished by EOD personnel. The collection/removal of inspected, marked munitions residue will be accomplished by contractor personnel. All cleared, inspected and marked munitions will be stored and secured in the residue holding area. All contractor personnel will receive an EOD munitions safety briefing prior to handling any munitions and at a minimum annually.

5.17.1.1. **(Added)** Clearance Procedures: The Range Operations Officer will consult with EOD prior to the clearance operation to confirm/establish the priority of the targets/areas requiring clearance. EOD will brief all personnel on safety procedures prior to the start of range munitions clearance. EOD will maintain a record of the clearance operation and make it available to the

Range Operations Officer upon request. The RCO on watch will annotate in the daily events log which areas were cleared.

5.17.1.2. **(Added)** EOD will inspect and mark munitions residue for safety and inert status prior to cleanup by detailed personnel or contractor.

5.17.1.3. **(Added)** Shaw AFB fire department will provide fire protection support as necessary.

5.17.1.4. **(Added)** The EOD NCOIC will exercise command of the clearance operation and any subsequent munitions disposal.

5.17.1.5. **(Added)** Augmentee and contractor personnel must not handle munitions residue until inspected and marked by EOD personnel.

#### **5.18. (Added) Clearance Requirements:**

5.18.1. **(Added)** Clearances will be accomplished in accordance with AFI 13-212V1.

5.18.2. **(Added)** Monthly clearances will alternate between targets based on use and are primarily used to meet the semiannual (150 use-day) requirement established in AFI 13-212V1.

5.18.3. **(Added)** The one week closure in September will allow for multiple targets to be cleared ensuring the biennial clearance requirement is met IAW AFI 13-212V1.

5.18.4. **(Added)** Decennial clearance should be conducted incrementally. The maximum debris density level allowed for decennial clearance areas is outlined in AFI 13-212V1. Two weeks in January are allotted to comply with this requirement.

#### **5.19. (Added) Safety Precautions.**

5.19.1. **(Added)** The Range Control Officer or Range Operations Officer will monitor all activities during cleanup. Constant monitoring of the LMR on the "Range" net should allow for instant response in case of fire or accident.

5.19.1.1. **(Added)** In the case of a fire the "Range Fire or Incident Reporting Procedures" will be followed.

5.19.1.2. **(Added)** In case of an accident, notify the on range firefighters, 20 FW CP and call 911 if off base response is needed.

5.19.2. **(Added)** Flying operations will normally be suspended during clearance operations. There are exceptions authorized in AFI 13-212V1 and may be authorized based on operations requirements.

5.19.3. **(Added)** Prior to release of airspace to EOD personnel, the main tower will be evacuated and all personnel non-essential to the EOD blast will either remain outside a 2,500 foot radius of the blast area or confine themselves inside the range buildings during the detonation. The main range road and buildings north of this road are beyond the weapons arc for the EOD demo area.

## Chapter 6

### AIR COMBAT MANEUVERING INSTRUMENTATION

**6.1. General.** The P5 Combat Training System (P5 CTS) is an evolutionary/spirally developed system that replaces most existing fixed range Air Combat Maneuvering Instrumentation (ACMI) systems, Measurement and Debriefing Systems (MDS), and Tactical Training Systems (TACTS) used by the United States Air Force (USAF).

#### **6.2. Scheduling.**

6.2.1. Contact Information: Office: 20 OSS/OSKPD P5 CTS, DSN 965-3555 or Commercial: 803-895-3555.

6.2.2. All visiting units/exercise participants requesting P5 support must provide 20 OSS/OSO the following information NLT 48 hours prior to first take-off:

6.2.2.1. Visiting Unit Designator, POC, home and deployed contact info

6.2.2.2. Type Aircraft

6.2.2.3. Type Launcher

6.2.2.4. Dates of Visit – Include final departure time from SAFB

6.2.2.5. Number of P5CTS pods visiting unit will deploy with. SAFB may provide P5CTS (V1) pods to visiting units under certain circumstances. (This is due to the limited number of pods we have for local flying at SAFB)

6.2.2.6. Station P5 Pods will be Loaded On

6.2.2.7. Number of Data Recording Devices (DRD) required (if using host unit DRDs)

6.2.2.8. Specific Pre/Post Mission Support (DRD prep/data merge/MLU set-up etc.)

6.2.2.9. RTO/Live Monitor Support (pre/post mission requirements, mission times)

6.2.3. In addition to the information in [paragraph 6.2.2](#), all Non-USAF aircraft must provide the following information at least 7 days prior to first flight.

6.2.3.1. Flight Clearance/Seek Eagle Clearance Information. For aircraft that have not flown with the P5 pod previously, flight clearance process must start NLT 90 days prior.

6.2.3.2. **(Foreign Aircraft Only)** Mass Properties Data review by foreign government. Generally obtained from SAF.

6.2.3.3. **(Foreign Aircraft Only)** Specific technical data for launcher on aircraft requesting P5.

6.2.3.4. **(Foreign Aircraft Only)** Specific job guide loading procedures/safe for maintenance procedures.

6.2.3.5. **(Foreign Aircraft Only)** P5 Clearance Letter. This is normally done after arrival at SAFB. This gives OSS permission to load pods on foreign aircraft, verifies aircraft will not damage P5 pod, and states if damage is incurred applicable foreign government assumes responsibility. Letter is drafted locally by 20 OSS P5 Pod Shop and signed by deployed unit commander.

**6.3. Restrictions.** USN/USMC aircraft can only fly with P5 (V2) pods. P5 (V2) pods must be equipped with ballast weights and Navy parallel umbilical IAW flight clearance documentation. SAFB does not have any P5 (V2) pods. GAF Tornado aircraft can fly with P5 V1 pods but must be connected with a Navy parallel umbilical. All foreign participants will have unclassified umbilical connections.

**6.4. Operations.** Upload and download of P5 CTS pods is performed by contractor personnel. Contractor duty hours are either 8 hours per day/5 days a week, or 10 hours per day/4 days a week. Hours are determined by 20 FW flying schedule. All P5 pods are connected to the aircraft launcher via AIM-9 umbilical which filters out data recorded by the pod except for time, space, positioning information (TSPI). P5 operations at SAFB are conducted in the unclassified mode. DRDs remain in the pod and do not need to be downloaded after each flight. Post mission data download/merge is conducted by the 20 OSS/OSKPD P5 CTS and will burn the information to an unclassified Compact Disc (CD). P5 live monitor is available at the 20 OSS War Room for Range Training Officer (RTO) missions.

**6.5. Feedback.** A P5 mission is considered successful if the pod records 100 percent of aircraft TSPI data from engine start to engine shut down. If a P5 pod fails during any phase of pre-flight, in-flight, or post-flight it is considered a non-effective sortie. It is the aircrew responsibility to contact the 20 OSS/OSKPD P5 CTS for troubleshooting.

## Chapter 7

### SAFETY AND SECURITY

#### 7.1. (Added) General.

7.1.1. (Added) The RCO is charged with ensuring the missions flown on the range are conducted safely. The RCO will ensure that range personnel comply with all range safety measures. The RCO is in charge of the range during periods of flying operations.

7.1.2. (Added) The range contractor is responsible for safe and efficient maintenance operations IAW with the Primary Training Range O,M&S contract.

7.1.3. (Added) The Government Contracting Officer's Representatives are responsible for monitoring overall safety and reporting violations.

7.2. (Added) Procedures. Safety will be the paramount consideration during all range activities.

7.2.1. (Added) In the event of an aircraft accident or ejection on the range complex, range maintenance personnel will participate in recovery operations as directed by the RCO.

7.2.2. (Added) Expended ordnance will not be handled by contractor personnel until it has been inspected by EOD personnel and is properly marked as being safe to handle under the direct supervision by EOD.

7.2.3. (Added) All ordnance inspected by EOD and found unsafe will be disposed of by EOD personnel.

7.2.4. (Added) Visitors to the range will be escorted at all times if visiting other than the observation area or static displays.

7.2.5. (Added) In the event of personal injury at the Poinsett ECR, take the following actions:

7.2.5.1. (Added) Have a qualified individual administer first aid to the injured person.

7.2.5.2. (Added) If the injury warrants, call 911 and request ambulance assistance. If you call from a base line, you will be contacting the Shaw emergency system (fire, police, clinic/base ambulance services). If you call from the outside line, you will be contacting downtown Sumter EMS.

7.2.5.3. (Added) Notify the on duty firefighter on range.

7.2.5.4. (Added) Notify 20 FW Command Post of the injured person.

7.2.6. (Added) Range Evacuation. If the range must be evacuated, the following procedures will apply:

7.2.6.1. (Added) Notify the 20 FW Command Post and RAPCON via hotline, landline or any means available.

7.2.6.2. (Added) Notify the Range Operations Officer or Range Manager as soon as time permits.

7.2.6.3. (Added) Secure all loose items outside; move them inside shelter, if possible.

- 7.2.6.4. **(Added)** Notify the EC complex as soon as the decision is made to evacuate.
- 7.2.6.5. **(Added)** Turn off or disconnect all electric equipment that can be turned off or disconnected.
- 7.2.6.6. **(Added)** Put one passenger truck and either the backhoe or the loader in the maintenance barn. Lock all buildings.
- 7.2.6.7. **(Added)** Either the RCO, Range Operations Officer or Range Manager will ensure all personnel have departed the range prior to locking the gates.
- 7.2.6.8. **(Added)** Either the Range Manager, Range Operations Officer or O&M Chief will call the contractor site manager or his deputy and give them instructions for reporting to work.
- 7.2.6.9. **(Added)** If range is evacuated during normal duty hours, all Government personnel will report to the 20 OSS building at Shaw, and wait until range is re-opened or released by 20 OSS/OSO. Contractor personnel should proceed home and await further instructions. Contractor personnel shall be available, to the maximum extent practical for reporting back to the range once the range is re-opened. If the range is evacuated after normal duty hours, all personnel should proceed home, if evacuation is expected to exceed duty time.
- 7.2.6.10. **(Added)** After the range has been re-opened, all utilities, buildings, equipment and electronics will be inspected for damage/repair. If there is major visible damage to facilities or utilities contact 20 CES to evaluate the damage and determine the best course of action. If facilities do not appear structurally sound do not enter until 20 CES has evaluated them. These inspections will be accomplished prior to opening the range to aircraft.

DANIEL T. LASICA, Colonel, USAF  
Commander

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 11-214, *Air Operations Rules and Procedures*, 14 August 2012

AFI 13-212V1\_ACCSUP, *Range Planning and Operations*, 13 July 2016

AFI 32-3001, *Civil Engineering Explosive Ordnance Disposal (EOD) Program*, 20 November 2014

AFMAN 33-363, *Management of Records*, 8 March 2008

AFMAN 91-201, *Explosives Safety Standards*, 21 March 2017

***Adopted Forms***

AF Form 847, *Recommendation for Change of Publication*

***Abbreviations and Acronyms***

**20 OSS**—20th Operations Support Squadron

**ACC**—Air Combat Command

**AFMAN**—Air Force Manual

**AFOSH**—Air Force Occupational and Environmental Safety, Fire Protection and Health

**AFRIMS**—Air Force Records Information Management System

**AGL**—Above Ground Level

**ATC**—Air Traffic Control

**B&G**—Bombing & Gunnery

**COR**—Contracting Officer's Representative

**CSAR**—Combat Search and Rescue

**CSE**—Center Scheduling Enterprise

**DME**—Distance Measuring Equipment

**EC**—Electronic Combat

**ECM**—Electronic Countermeasures

**ECR**—Electronic Combat Range

**EOD**—Explosive Ordnance Disposal

**EW**—Electronic Warfare

**FAA**—Federal Aviation Administration

**HARBS**—High Altitude Release Bombs

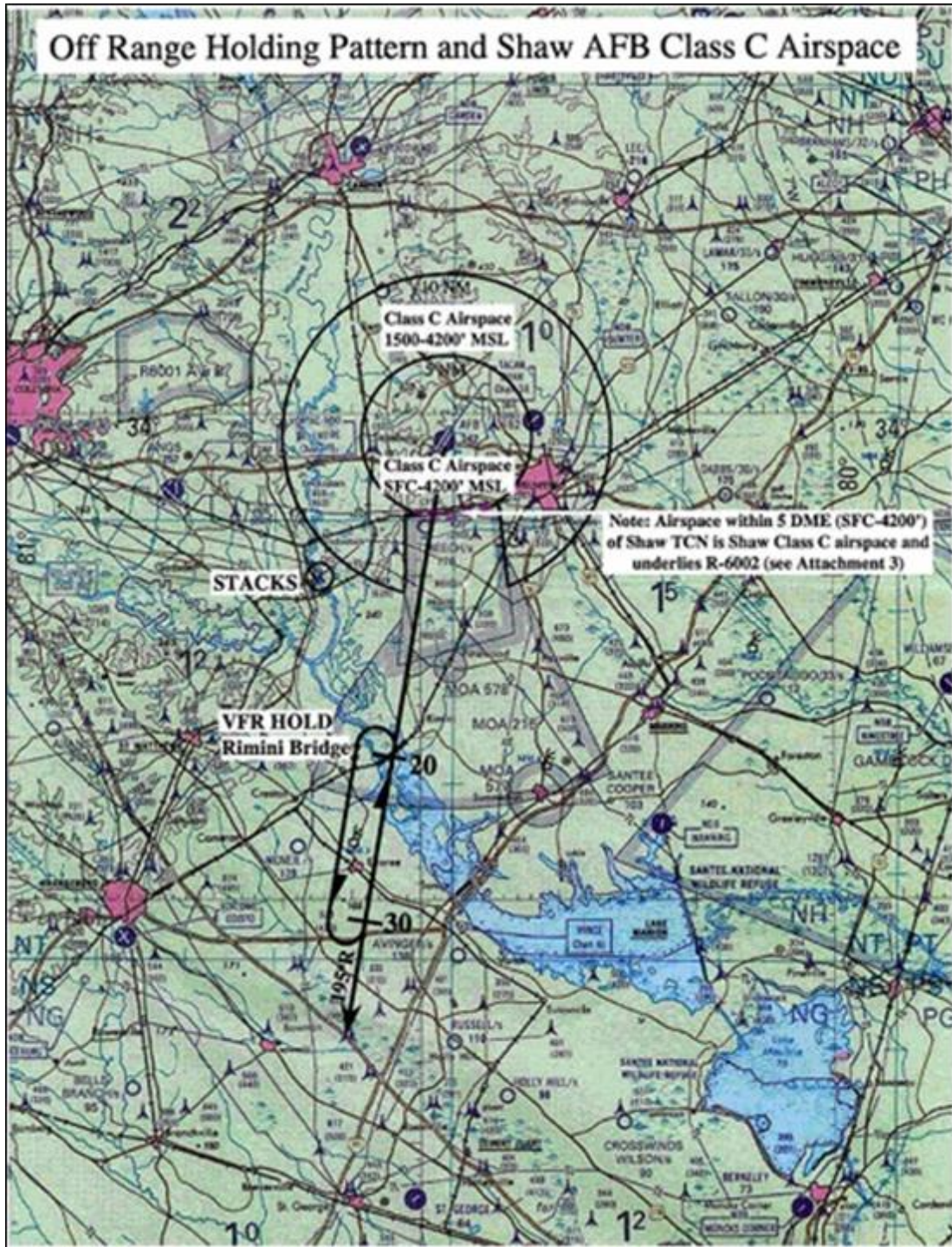
**IAW**—In Accordance With

**IFF**—Identify Friend or Foe  
**IFR**—Instrument Flight Rules  
**IRSSS**—Improved Remote Strafe Scoring System  
**LAS**—Low Angle Strafe  
**LMR**—Land Mobile Radio  
**LRS**—Long Range Strafe  
**LTA**—Laser Target Areas  
**Mini-MUTES**—Mini-Multiple Threat Emitter System  
**MOA**—Military Operations Area  
**MSL**—Means Sea Level  
**MSCT**—Multi Source Correlator Tracker  
**MTR**—Military Training Route  
**MUTES**—Multiple Threat Emitter System  
**NORDO**—No Radio  
**NVD**—Night Vision Device  
**NVG**—Night Vision Goggles  
**O, M&S**—Operations, Maintenance & Support  
**PECR**—Poinsett Electronic Combat Range  
**PIREP**—Pilot Weather Report  
**RPA**—Remotely Piloted Aircraft  
**RSLs**—Range Safety Lighting System  
**RCO**—Range Control Officer  
**RDS**—Records Disposition Schedule  
**REU**—Remote Emitter Unit  
**RM**—Range Manager  
**ROO**—Range Operations Officer  
**TRTG**—Tactical Radar Threat Generator  
**TTS**—Two Target Strafe  
**VCS**—Visual Cueing System  
**VLD**—Visual Level Delivery  
**VFR**—Visual Flight Rules  
**WISS**—Weapons Impact Scoring System

Attachment 2

OFF RANGE HOLDING PATTERN AND SHAW AFB CLASS C AIRSPACE

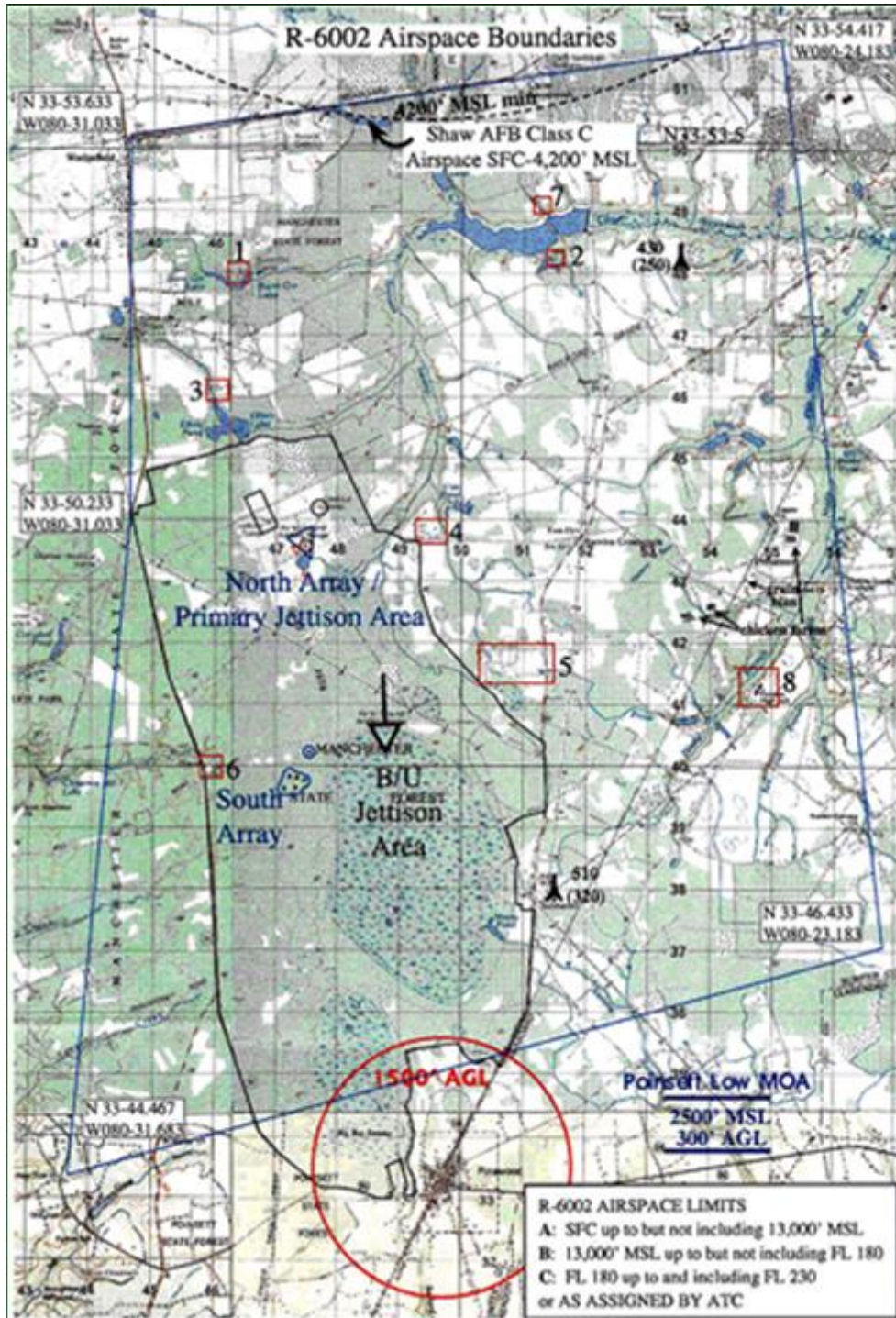
Figure A2.1. Off Range Holding Pattern and Shaw AFB Class C Airspace.



Attachment 3

R-6002 AIRSPACE BOUNDRIES

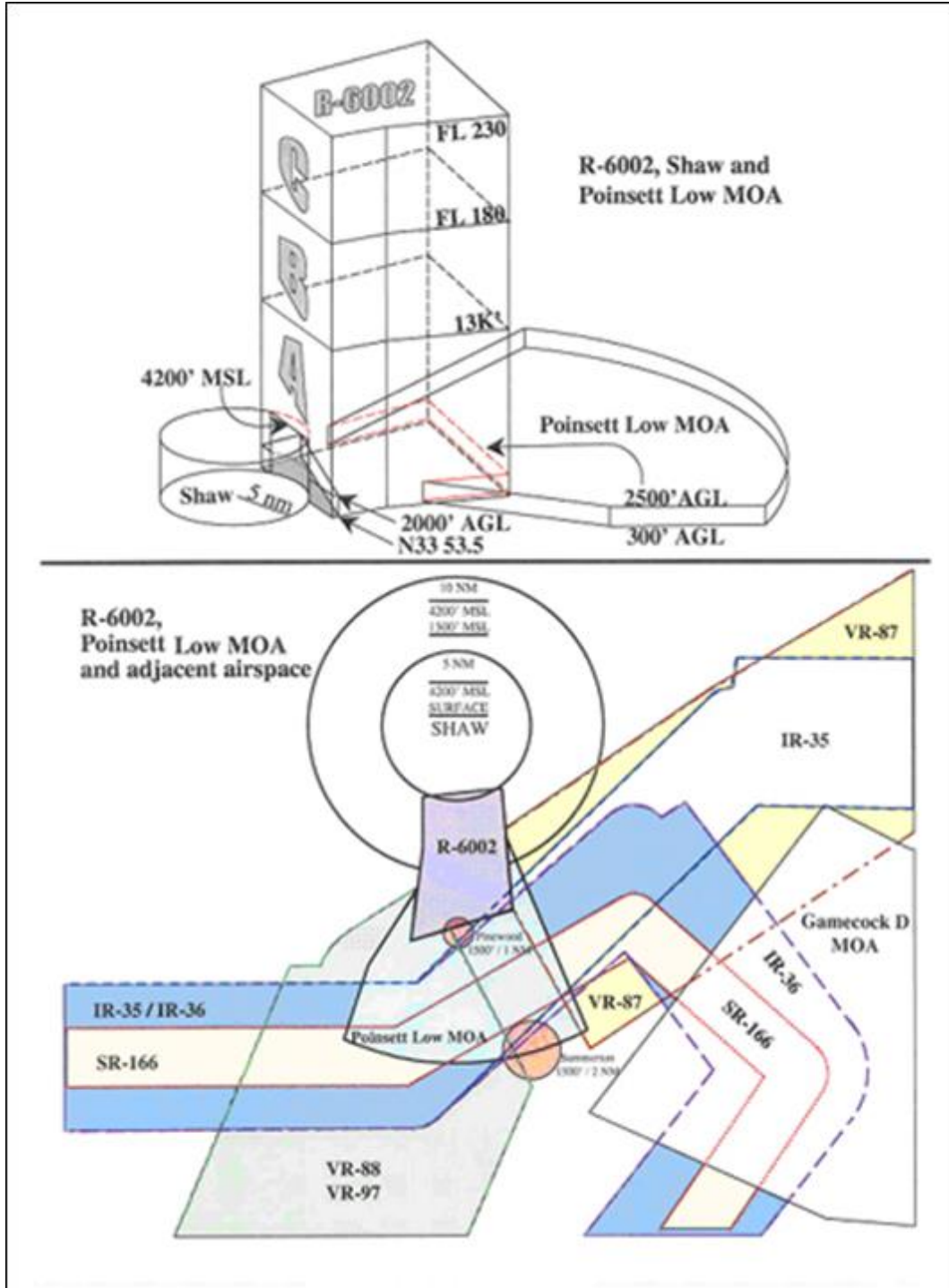
Figure A3.1. R-6002 Airspace Boundries.



Attachment 4

R-6002 SHAW AND POINSETT LOW MOA AND ADJACENT AIRSPACE

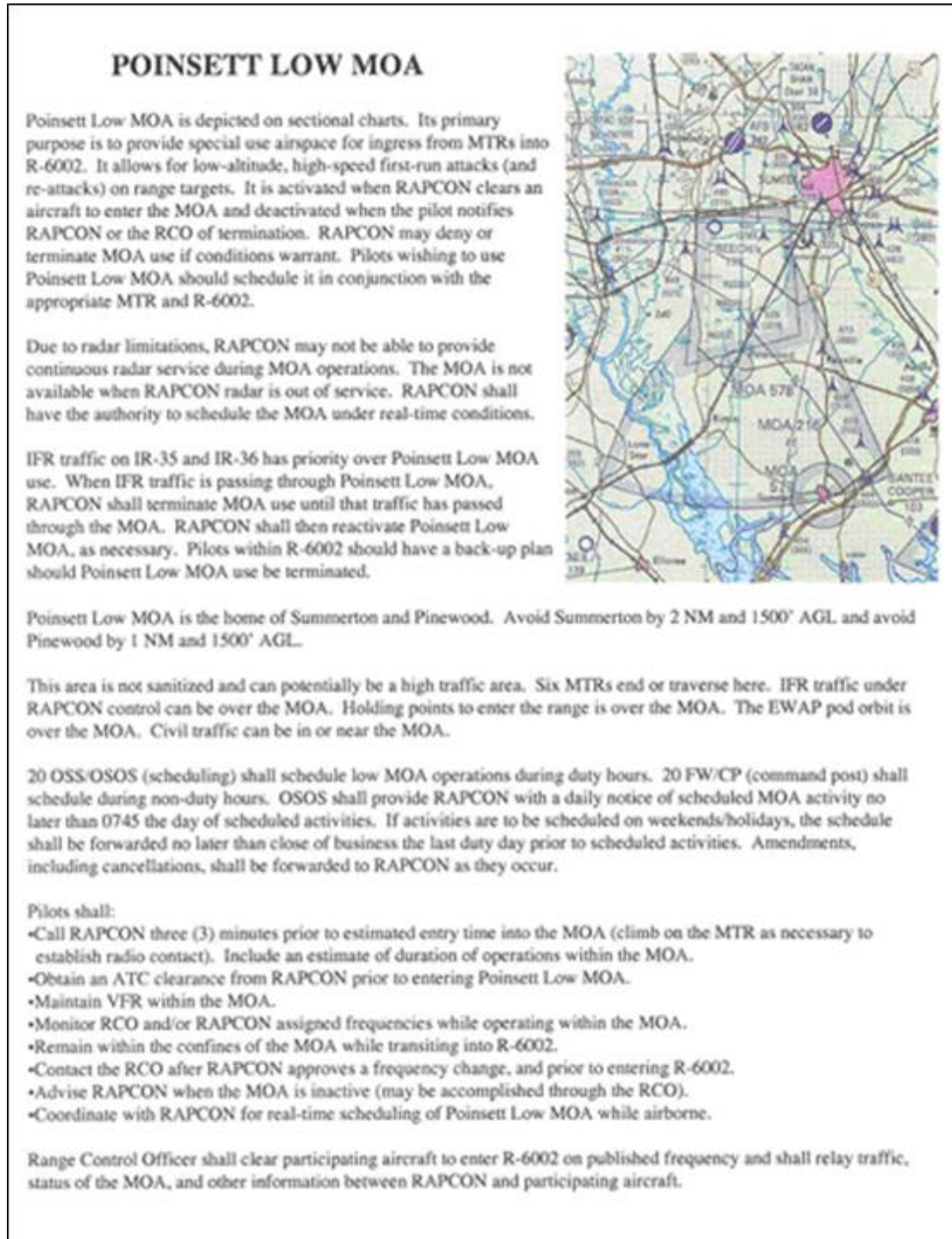
Figure A4.1. R-6002 Shaw and Poinsett Low MOA and Adjacent Airspace.



## Attachment 5

### POINSETT MOA

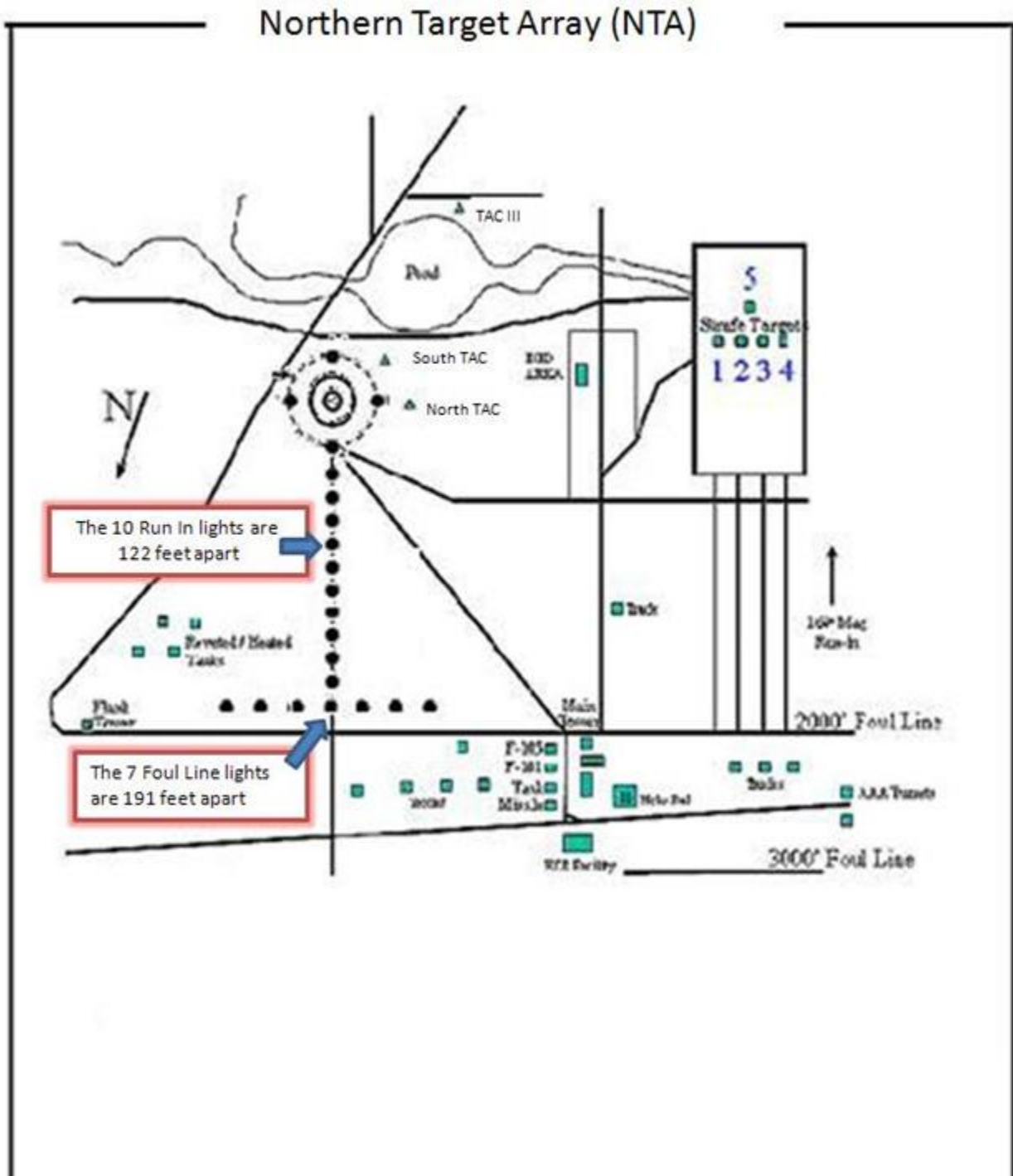
**Figure A5.1. Poinsett Low MOA.**



Attachment 6

POINSETT NORTHERN TARGET ARRAY

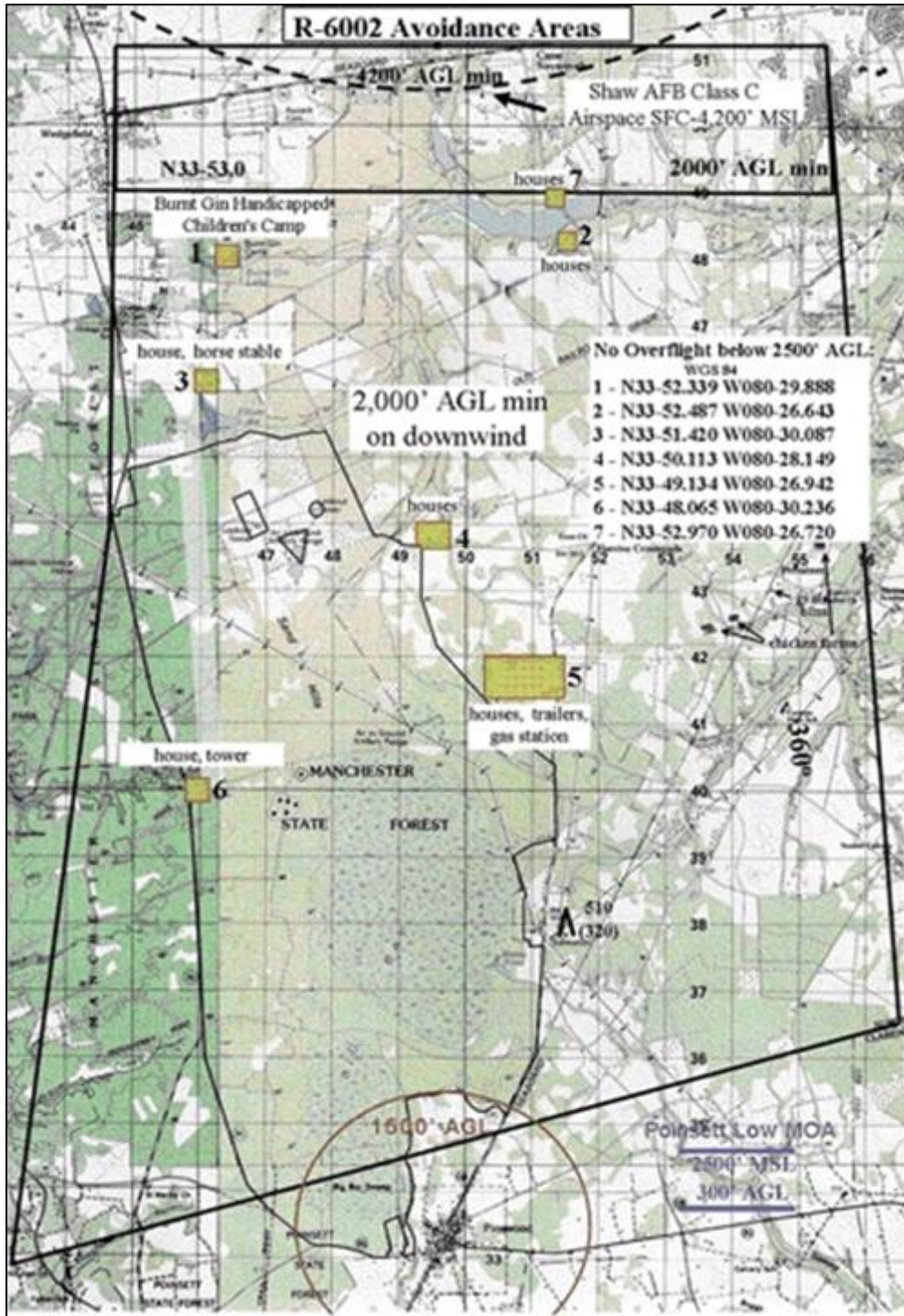
Figure A6.1. Poinsett Northern Target Array.



Attachment 7

R-6002 AVOIDANCE AREAS

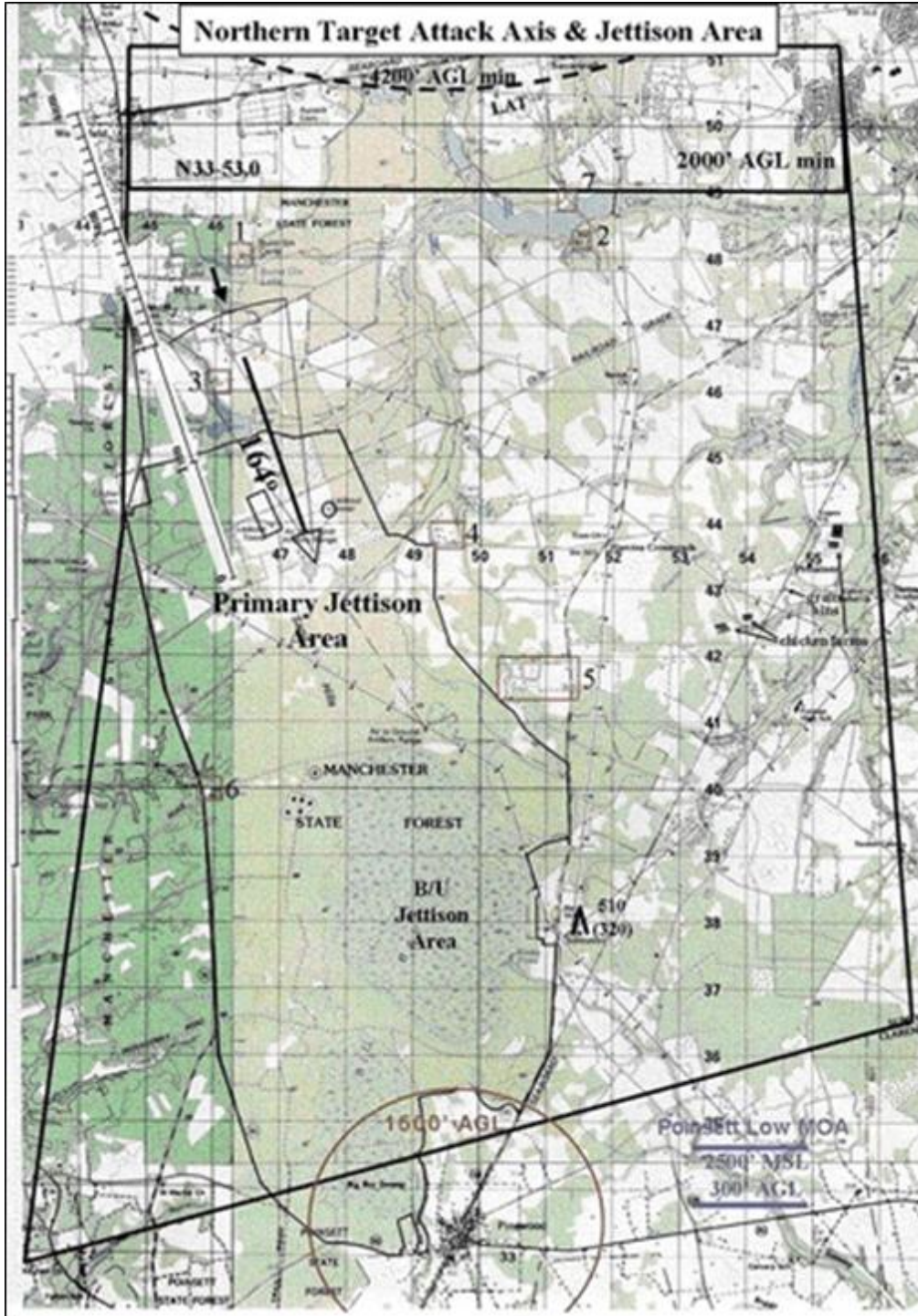
Figure A7.1. R-6002 Avoidance Areas.



Attachment 8

NORTHERN TARGET ATTACK AXIS & JETTISON AREA

Figure A8.1. Northern Target Attack Axis & Jettison Area.



## Attachment 9

## TARGET COORDINATES / AVOIDANCE AREAS / EMITTER LOCATIONS

Figure A9.1. Target Coordinates.

Target Coordinates							
Target		WGS 84		Elev.	Object	NAD 27	
		North	West			UTM: 17S NT	
						↔	↑
North Array	Circle	33° 49.598'	080° 29.119'	203'	Truck	47498	43793
	N. TAC	33° 49.592'	080° 29.196'	203'	Container	47301	43773
	S. TAC	33° 49.565'	080° 29.165'	201'	Container	47374	43688
	TAC III	33° 49.448'	080° 29.151'	197'	Truck	47445	43329
South Array	101	33° 48.111'	080° 29.102'	190'	SAM Site	47560	40443
	102	33° 47.562'	080° 29.132'	202'	Cmd Post	47485	39982
	103	33° 47.578'	080° 29.218'	212'	Fuel storage	47361	40033
	104	33° 47.521'	080° 29.197'	215'	Comm Site	47316	39854
	105	33° 47.521'	080° 29.268'	207'	Convoy	47136	39857
	106	33° 47.580'	080° 29.228'	214'	Train	47239	40039

Figure A9.2. Avoidance Areas.

Avoidance Areas		
Ref. #	NAD 27-17S	Description
1	NT 464479	Camp Burnt Gin, a state camp for physically handicapped children, is located 1 NM north of Elliot's Lake. Visual level delivery patterns must avoid overflight by 4000' laterally and 2500' vertically. Use Burnt Gin lake as a reference to maintain this separation.
2	NT 514482	Houses
3	NT 461462	Though not a designated over fly area, an individual who has registered several official noise complaints, resides and operates a horse stable here. Since it lies on the base to final turn for most deliveries, it is impossible to totally avoid this area. Keep in mind AFI 11-202V3 prohibits flying closer than 500 feet to any structure, person or vehicle.
4	NT 491438	Houses

5	NT 510420	Houses, trailers, gas station
6	NT 459400	House, tower
7	NT 513491	Houses
8	NT 548413	School

**Figure A9.3. Emitter Locations.**

<b>Poinsett ECR Emitter Locations (WGS-84)</b>			
Site Names	North	West	NAD 83 UTM: 17N
Main Site (MUTES)	33° 50.360'	080° 29.630'	546830.4 3744461.0
<b>Gamecock MOA Fixed Sites (Mini-MUTES)</b>			
MM 1 Olanta	33° 57.226'	079° 56.069'	598453.7 3757541.0
MM 2 Manning	33° 44.493'	080° 05.558'	584047.4 3733869.2
MM 3 Ellore	33° 33.184'	080° 34.593'	539310.5 3712684.0
MM 4 Summerton	33° 37.976'	080° 20.900'	560436.9 3721648.3
MM 5 Kingstree	33° 38.889'	079° 54.064'	601902.5 3723685.9
<b>Bulldog MOA Fixed Sites (Mini-MUTES)</b>			
MM 6 Ft Gordon	33° 17.762'	082° 15.947'	382146.7 3684822.2
MM 7 Waynesboro	33° 03.949'	081° 52.770'	417899.3 3658928.0
MM 8 Millen	32° 48.718'	081° 55.200'	413873.8 3630815.9
MM 9 Magruder	32° 55.611'	082° 14.501'	383907.5 3643860.8
MM 10 Grange	33° 02.992'	082° 31.976'	356900.4 3657840.3

Attachment 10

EMERGENCY DIVERT AIRFIELDS

Figure A10.1. Emergency Divert Airfields.

