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Training
WEAPONS RANGES

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Training
WEAPONS RANGES

This supplement to AFR 50-46 establishes procedures and policies applicable to all agencies using Oscura, Red Rio, Casa, and McGregor weapons ranges, when these areas have been allocated to 49th Fighter Wing (FW) control and management by White Sands Missile Range (WSMR).

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Chapter 1

RESPONSIBILITIES

1-1. General. Commanders of 49 FW squadrons and units are responsible for ensuring that all personnel within their jurisdiction comply with the provisions of this supplement. Units and agencies not assigned to or part of the 49 FW are required to comply with the provisions of this supplement when operating aircraft or performing ground duties on Holloman-managed ranges.

1-2. User's Classification:

- a. Regular users - all 49 FW units and others using Holloman-managed ranges on a daily basis.
- b. Casual users - units who occasionally use Holloman-managed ranges.

1-3. Scheduling. The 49 OSS/OSOS (AUTOVON 867-3536) is responsible for the scheduling of Oscura Range, Casa Range, McGregor Range, or Red Rio Range within restricted area R5107B. All regular users will submit range requests one week prior to the week of intended use. Casual units must submit range requests not later than two weeks prior to the week of intended use. All units will specify the areas requested, desired time blocks, flight call signs, number of aircraft in each flight, and type of ordnance to be expended. Flight call signs will not be changed once they are coordinated with 49 OSS/OSOS.

1-4. Management and Maintenance. The 49 OSS Commander is delegated the responsibility for daily supervision of management, operation, and maintenance of all Holloman-managed air-to-surface ranges.

1-5. Decontamination and EOD Operations. The Chief, Explosive Ordnance Disposal (EOD) Flight, 49 CES/CED, is responsible for providing decontamination and EOD support for Holloman-managed ranges. The EOD Flight is responsible for providing qualified personnel to conduct EOD safety briefings upon unit commander's request as required by AFR 50-46/ACC Supplement 1. Local operating regulation will address specific details for EOD operations on Holloman-managed ranges and will be coordinated with 49 OSS/OSTA. The safe conduct of all EOD operations is the responsibility of the EOD Flight. The 49 OSS/OSTA will coordinate range decontamination.

1-6. EOD Briefing. Unit commanders are responsible for ensuring each range control officer (RCO) receives an initial EOD safety briefing according to AFR 50-46/ACC Supplement 1. An EOD briefing statement will be completed in two copies. The original will be retained by the EOD briefing unit and one copy at 49 OSS/OSTA with the Range Control Contractors Training files.

1-7. Safety. The 49 FW Chief of Safety will ensure the periodic monitoring of EOD briefings, RCO training, and general operations and training on Holloman-managed ranges.

1-8. Weather Observation. Surface observations will be taken one hour prior to the first scheduled flight (requires weather information) arrival at Oscura Range and continue during range operations. Pilot balloon (PIBAL) upper wind observations (wind speed and direction) will be provided from the surface to 10,000 feet above ground level (AGL) for each 1000 foot increment plus one from 500 feet AGL. These wind observations will be taken two hours prior to the first scheduled range period (or when first daylight permits, whichever is later) and again thereafter as directed by the RCO, not to exceed one successful observation per hour. Under normal circumstances; i.e., special cloud and visibility observations are not required, RCOs will direct one PIBAL per hour. If there is a break of three or more hours in the range schedule, RCOs may discontinue PIBALS until two hours prior to the next scheduled period. RCOs will brief the weather observer of the day's requirements as part of the range opening tasks and inform the weather observer of any changes throughout the day.

1-9. Utilization Reporting:

- a. The 49 OSS/OSOS will submit the quarterly weapons range activity reports for Oscura, Red Rio and McGregor ranges to HQ ACC/DOSR. These reports will be prepared according to the instructions provided in AFR 50-46/ACC Supplement 1, Attachment 2.

- b. The 49 OSS/OSOS is responsible for the collation of all data necessary to publish the utilization reports for Oscura, Red Rio and McGregor ranges.

1-10. Range Visits and Civilian Access. Travel within the confines of the WSMR complex by military or civilian personnel, except for those individuals in direct support of operations and maintenance functions, is expressly prohibited without the approval of the WSMR Provost Marshal. Personnel desiring access to the range complex for hunting, travel, or range visits will comply with the appropriate restrictions as set forth by the

WSMR Provost Marshal: Hunting - WSMR Regulation 190-1, Control of Entry and Movement - WSMR Regulation 210-25, and Travel and Range Visits - WSMR Regulation 380-5.

- a. For ground entry to Oscura Range, all personnel, except military and government employees performing directed maintenance or support functions, are required to submit visit requests to 49 OSS/OSTA.

- (1) Procedures for ground entry will be:

(a) Organizations desiring visits will:

1. Submit requests to 49 OSS/OSTA and designate an escort official who will coordinate all activities associated with the visit.

2. Make arrangements for or provide all required transportation.

(b) The designated escort official will:

1. Obtain a range access badge from Holloman Pass and Registration.

2. Obtain tour orientation badges from Pass and Registration for all individuals on the visit.

3. Notify 49 OSS/OSTA of the intended visit.

4. Ensure all visitors are briefed on hazards associated with range operations and the dangers involved in handling live and practice ordnance.

5. Upon arrival at the range, ensure all individuals sign the visitors log and inform the RCO of the group's presence.

6. Remain with visitors at all times while on WSMR and limit the movement of visitors to authorized areas only.

(c) The range manager will:

1. Provide overview of range operations, workload permitting.

2. Ensure visitors are escorted by and under supervision of an individual who has received EOD safety briefing and training.

3. Limit visitor access to range towers consistent with the conduct of safe operations.

(d) The 49 OSS/OSTA will be approving authority for all range visits.

(2) Only the immediate area facilities, range towers, range office, target areas, and aircraft making deliveries with training ordnance may be photographed. All other photography is prohibited. The RCO will be notified prior to any photographs being taken.

(3) RCOs desiring to take military dependents or guests to the range must obtain approval in accordance with the provisions of this paragraph.

b. Entry onto Red Rio Range is not normally authorized. Requests approved by 49 OSS/OSTA will be conducted in accordance with the procedures outlined in paragraph a above. The following additions and exceptions apply:

(1) The escort official must receive an EOD safety briefing.

(2) 49 OSS/OSTA must provide an individual who has received EOD safety briefing and training to supervise the group's movements and actions.

(3) Requesting organizations will notify and coordinate visits with 49 OSS/OST prior to submitting requests to 49 OSS/OSTA. 49 OSS/OSTA will confirm visit approval with 49 OSS/OST to preclude interference with flight operations.

(4) Normal ground crew safety procedures employed by 49 OSS/OSTA will be used.

1-11. Supervisory Visits to Oscura Range. The 49 Operations Group Commander or Deputy Commander should conduct unannounced range visits to Oscura Range at least once a year. Commanders, vice commanders, squadron commanders, and key staff personnel of using organizations are invited to make periodic visits to Oscura Range.

1-12. Fire Fighting Responsibilities and Procedures. Fire fighting responsibilities for Oscura and Red Rio ranges rest primarily with the Station Fire Department under the authority of the WSMR Fire Chief. Additional fire fighting support for these ranges will be provided by the Holloman Fire Marshal through Oscura Range personnel, the Bureau of Land Management, civilian fire departments, and other agencies when required and requested by the Station Fire Marshal.

a. Fire fighting procedures for Oscura Range are outlined in the contractor mishap prevention program.

b. Range personnel will make the initial response to fires on Oscura Range. The range manager may allow the fire to burn provided:

- (1) The fire is within the firebreaks.
- (2) Vegetation is green enough to control the burning.
- (3) High winds are not a factor.
- (4) Sufficient daylight exists (30 minutes prior to sunset) to ensure fire is completely burned out.

c. Cherokee through published WSMR channels will notify Stallion Fire Department to make initial response to fires on Red Rio Range when the fire is outside of the firebreaks. If a fire occurs within the firebreak provision of paragraph 3-14c will apply.

d. Further scheduled flights on Red Rio Range will be canceled when there is a fire outside of the firebreak that requires Stallion Fire Department response. Flights may resume once the Stallion Fire Department confirms the fire is extinguished and all personnel have departed the range.

e. Until the Stallion Fire Department requests Oscura Range personnel and equipment to support fire fighting efforts on Red Rio Range, Oscura Range operations will continue as normal. When range personnel are dispatched to Red Rio Range, hot weapons deliveries on Oscura Range will cease.

Chapter 2

OSCURA RANGE (CLASS A/B/C)

SECTION A - RANGE DESCRIPTION AND CAPABILITIES

2-1. General. Oscura is a Class A/B/C range. Class A ranges are defined as manned ranges under the direct operational control of a RCO with ground scoring capability. As a Class B range, Oscura Range will be manned and have a ground scoring capability, but no RCO will be present. As a Class C range, Oscura Range will be unmanned. During periods of Class B/C operations, the flight lead assumes RCO responsibility for the safe and orderly conduct of flight operations on the range. Oscura Range is a composite simulated nuclear and non-nuclear weapons delivery complex, separated into right and left ranges (see Figure 2-1). All simulated nuclear weapons deliveries and night operations will be on the nuclear target.

2-2. Operating Hours. Normal hours for operation are:

Day - 0800-2000/Monday through Friday Mountain Standard Time
0800-2200/Monday through Friday Day-light Savings Time

NOTES:

1. Range periods after 1700 hours must be coordinated with 49 OSS/OSTA 48 hours in advance to allow contractor time to establish split shift operations.

2. Units desiring range periods at times and days other than those indicated above, will receive prior approval from 49 OSS/OSTA (payment for overtime of contract personnel may be required) with 49 OSS/OSOS.

2-3. Range Boundaries and Airspace Available. Oscura Range lies entirely within the restricted ground and airspace of WSMR (R5107B). Specific range ground boundaries within this restricted area are defined:

<u>Boundaries</u>	<u>Latitude/Longitude Coordinates</u>	<u>(WSMR Crash Grid)</u>
North	33o 37'N	63
South	33o 19'N	52
East	106o 04'W	TANGO (T)
West	106o 20'W	PAPA (P)

NOTE: Airspace available during periods when Oscura Range is hot from surface to 30,000 feet mean sea level (MSL). When scheduling range, 49 OSS/OSOS must be made aware of maximum altitude requirements to complete scheduled events.

2-4. Real Estate and Airspace Restrictions:

a. Due to the high volume of civilian air traffic in the visual flight rules (VFR) corridor adjacent to the east boundary of the range, flight east of Tango and Highway 54 from 33o 23'N 106o 04 30'W (Three Rivers) must be avoided except during range entry and exit.

b. All deliveries will be flown so as not to overfly any building or tower within the range boundaries.

c. Units desiring to fly weapons delivery patterns which will be outside the north, west, or south range boundaries must coordinate for that airspace with mission control (Cherokee) prior to maneuvering in the airspace. Due to the Sands Corridor to the west and Salinas Corridor to the south, airspace outside the west and south boundaries is not normally available during day operations.

d. All ordnance must impact within the impact area depicted in Figure 2-2. Ordnance impacts outside this area and within the Oscura Range boundaries must be reported to the RCO or range crew during Class B operations. Any impact outside Oscura Range boundaries will be considered an off-range release. Cherokee will be notified if the off-range release occurs within the WSMR. The RCO will notify 49 OSS/OSTA, extension 7781/2 who will coordinate actions with WSMR Flight Safety (NR-CF) (678-2055).

e. Because of Red Rio airspace to the north, do not exceed 45 distance mile equivalent (DME) north of the Holloman tactical air navigation (TACAN) (CH 92) unless cleared into Red Rio by Cherokee.

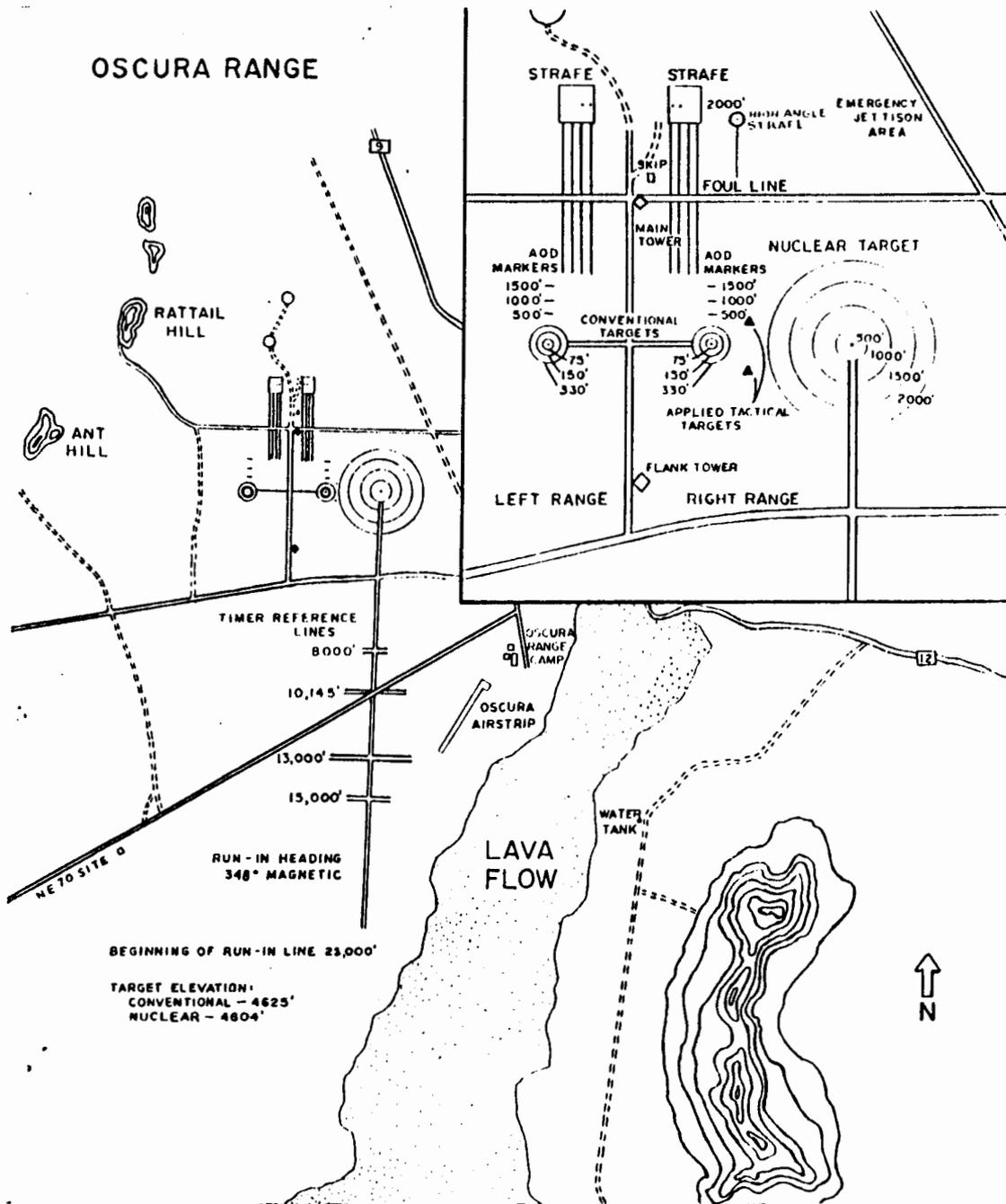


FIGURE 2-3. Oscura Range Diagram.

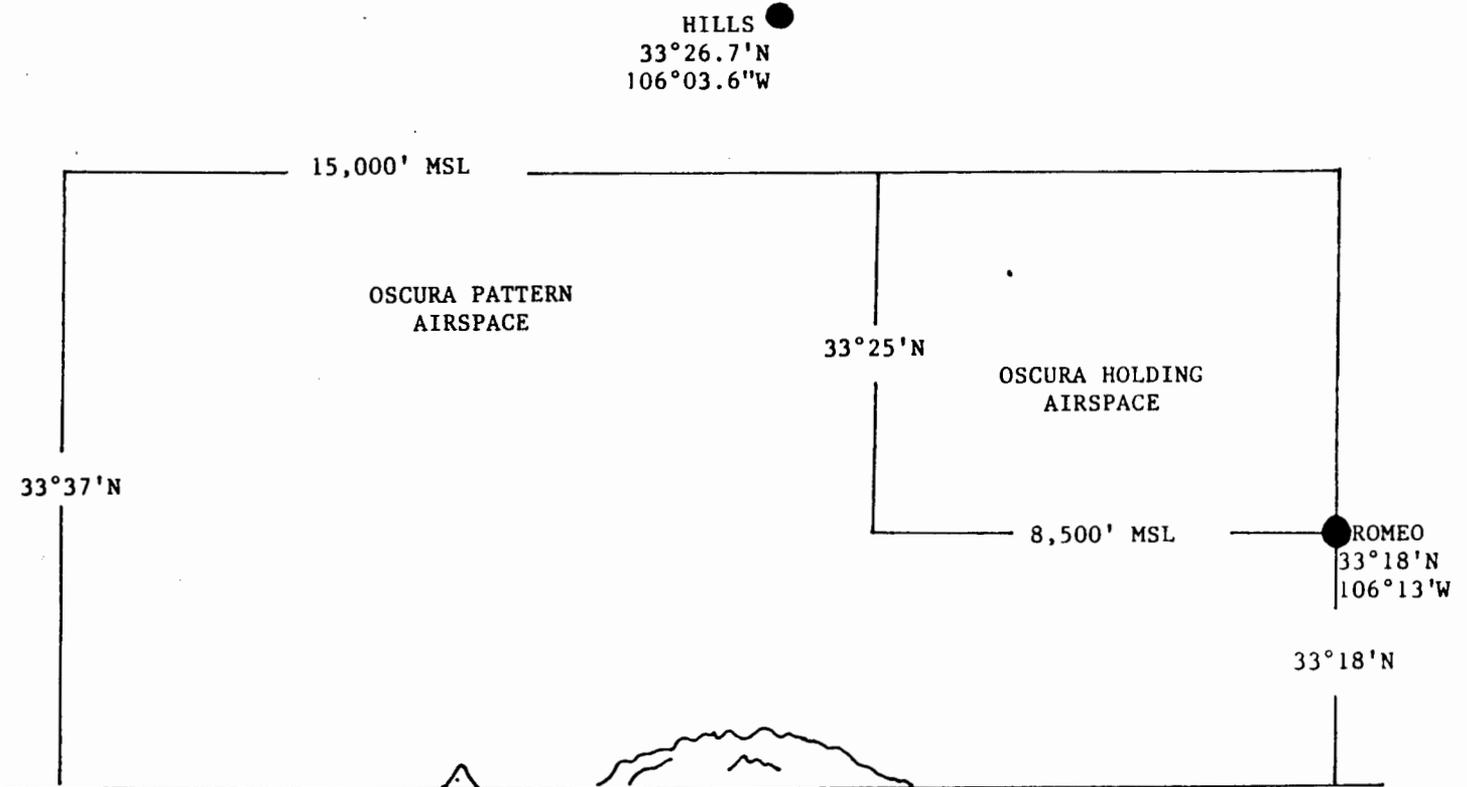


FIGURE 2-4. Oscura Range Holding Airspace (Side View).

2-5. Range Description. The Oscura Range layout is depicted in Figure 2-3.

a. Oscura Range is located on the 3430 radial 40 DME from the Holloman TACAN station. Coordinates are:

- (1) Main Tower - 330 31'46.285, 1060 12'42.852 Alt 4655 ft.
- (2) Flank Tower - 33030'47.588, 106012'42.606 Alt 4640 ft,
- (3) Left Conventional Target - 330 31'15.542, 1060 13'11.335 Alt 4615 ft
- (4) Right Conventional Target - 330 31'16.870, 1060 12'12.767 Alt 4587 ft
- (5) North Tactical Target - 33031'24.362, 106012'09.482 Alt 4589 ft
- (6) South Tactical Target - 33031'09.131, 106012'10.496 Alt 4587 ft
- (7) Nuclear Circle - 33031'16.517, 106011'42.188 Alt 4555 ft
- (8) High Angle Strafe - 33032'01.761, 106012'09.958 Alt 4649 ft

b. Attack headings are:

- (1) Conventional targets - 3480 magnetic.
- (2) Nuclear entry - 3480 magnetic.
 - (a) South entry - 3480 magnetic.
 - (b) Trails entry - 2140 magnetic. (Authorized for MK-106 laydown deliveries only.)

2-6. Target Description (See Figure 3-3 of AFR 50-46):

a. There are two acoustiscored strafe targets positioned 2000 feet from the strafe foul line on both the left and right ranges. The target is a F-4 drag chute with a seven foot diameter black bull's-eye. The drag chute is suspended between 2 poles spaced 70 feet apart using MA-1A barrier webbing. The bull's-eye is 11 feet above the surface of the strafe pit. The high angle strafe target is located east of the low angle acoustiscored strafe targets on the right range. The target is a vehicle located 1600 feet beyond the foul line in a small plowed out area. Scoring will be hit/miss criteria for the center of the burst.

b. There are two conventional targets, one on each range. Each target consists of a vehicle or conex-type box used as a bull's-eye with 23 meter (75 foot) and 46 meter (150 foot) radius circles around the target. The target with circles lies within a 100 meter (330 foot) radius cleared area. Film assessment markers (rows of tires) are located at the 6, 9, 12, and 3 o'clock positions of the 46 meter circle. Flight path and aim-off distance markers are located at 12 o'clock 500, 1000, 1500, and 2000 feet from the bull's-eye.

c. Two scorable applied tactics targets (vehicles) are located between the conventional and nuclear targets on the right range. Their positions are not marked with cleared areas or circles.

d. The nuclear target consists of a vehicle or box within a 225 foot radius cleared area, surrounded by circles with radii of 75, 150, 500, 1000, 1500, and 2000 feet. There are three radar reflectors. One is the roof of the main Oscura Range Camp building, located 7229 feet south and 4808 feet east of the nuclear target. Two reflectors are placed on the lead-in line at the 12 and 6 o'clock positions.

- (1) West Radar Reflector - 33031'16.764, 106012'05.908 Alt 4576 ft
- (2) North Radar Reflector - 33032'04.807, 106011'44.996 Alt 4654 ft
- (3) East Radar Reflector - 33031'17.132, 106011'18.799 Alt 4606 ft

e. The nuclear run-in line is a graded strip approximately 20,000 feet long, oriented on a heading of 3480 magnetic. The line is marked by four plowed-out timer reference points (TRP) at 8000; 10,000; 13,000; and 15,000 feet from the nuclear target. The paved road which crosses the run-in line at the 10,000 foot TRP is 10,145 feet from the nuclear target.

SECTION B - RANGE OPERATING PROCEDURES

2-7. Area Overflight. No portion of WSMR may be overflown without clearance from Cherokee. Holloman Approach Control or Albuquerque Air Traffic Control (ATC) Center may relay flight clearance via land-line communication with Cherokee. Aircraft cleared for overflight will adhere to all restrictions imposed by the clearing agency. All variations and deviations from issued clearances once on the range must be approved by Cherokee. When the range is "HOT", flight through Oscura Range airspace, other than as specified in this supplement, is prohibited unless approved by the RCO.

2-8. Range Holding, Entry, and Departure:

- a. Holding for range entry will be at one of the two holding points depicted in Figure 2-4.

(1) For Oscura Range, the primary holding area is located within the airspace of Oscura Range and south of 33° 25' N latitude. This line corresponds to the 56 reference on the WSMR NRD grid. Holding altitude will be between 8500 feet MSL and 15,000 feet MSL. Maneuvering within this airspace is at the discretion of the flight lead/aircraft commander. The holding pattern depicted in Figure 2-1 is a left-hand pattern, oriented on a 078°/258° heading with 7 nautical mile (nm) legs and the southeast corner as the 347° 28 DME and the northwest corner as the 334°/32 DME, Holloman TACAN. This pattern is an example only. Prior to entering the holding airspace, aircraft will make the following radio transmission in the blind on the working range frequency (normally UHF 342.2 - primary), "Call sign, entering Oscura holding from (applicable direction/reference point)". Aircraft established in the holding airspace will acknowledge any aircraft's entry call with their altitude and approximate location in the holding airspace. Minimum altitude separation between individual flights or aircraft will be 1000 feet. All aircraft in the holding airspace will monitor the working range frequency.

CAUTION

Aircraft may be underflying the Oscura Range holding pattern in a nuclear or similar profile weapons delivery pattern.

WARNING

Aircraft should proceed no further north than 33 DME, Holloman TACAN to avoid entry into weapons delivery patterns.

(2) The secondary holding area will be at Trails, 33° 43' N 105° 57' W (358°/53 DME, Holloman TACAN). Trails is a dirt road intersecting with Highway 380 on the west side of the lava flow which is west of Carrizozo. Holding will be at 12,500 feet MSL 53 to 58 DME inbound on the Holloman TACAN 358° radial, right-hand turns.

CAUTION

Aircraft may be holding at Trails at 10,500 feet MSL awaiting entry onto Red Rio Range.

b. Aircraft will normally enter Oscura Range airspace from either the south at Romeo, 33° 18' N 106° 13' W (337°/27 DME Holloman TACAN/WSMR NRD grid intersection of Romeo and 52 lines); the east at Hills, 33° 26.7' N 106° 03.6' W (352°/35 DME Holloman TACAN); from the north at Trails, 33° 53' N 105° 57' W (358°/53 DME Holloman TACAN); or southeast at Capes, 33° 17.25' N 106° 04.0' W. Aircraft proceeding from Hills to the Oscura Range holding area will not descend below 15,000 feet MSL until south of 33° 25' N latitude (WSMR NRD grid line 56). Aircraft may proceed directly from any entry point to the delivery pattern if cleared by the RCO. The RCO will clear all aircraft from holding into the delivery pattern when all preceding aircraft have departed the delivery pattern. Aircraft proceeding from Trails may descend after they depart the holding pattern at Trails. Entry into Oscura Range airspace from directions and points other than those listed above must be approved by the RCO or Cherokee (as applicable).

NOTE: Aircraft entering Oscura airspace from a Romeo departure will not descend below 8500 feet MSL (or any lower altitude approved by Cherokee) until north of 27 DME (CH 92) on the Romeo line.

c. All aircraft will normally exit Oscura Range to the east between the north boundary and main range complex above 10,500 feet MSL. Departures via the Sands and Salinas corridors or through Red Rio Range may be accomplished provided this is coordinated with and approved by Cherokee. Departing aircraft will maintain VFR until clear of WSMR airspace. Aircraft which exit east off range and plan to recover at Holloman will proceed east and intercept TAE Holloman 357° radio inbound and contact Holloman Approach Control for recovery clearance. Aircraft exiting east off range and not planning to recover at Holloman may obtain an instrument flight rules (IFR) clearance by contacting Holloman Approach Control for handoff to Albuquerque Center. Aircraft which exit north through Red Rio Range and wish to obtain an IFR clearance will contact Albuquerque Center after departing WSMR airspace. The RCO will coordinate with Cherokee to clear aircraft departing off range to the east. All other aircraft will clear off WSMR with Cherokee as soon as practical prior to departing WSMR airspace. Prior to exiting the assigned WSMR working area, aircraft will not penetrate other WSMR airspace radio contact approval from Cherokee.

d. When aircraft are operating on Oscura or Red Rio and helicopters are transiting to and from the Forward Army Air Defense System (FAADS) airspace, the following procedures apply:

(1) Army helicopters will inform Cherokee and Oscura prior to departing and before recovering to the Oscura Range Center. Oscura Tower will in turn notify aircraft working the range of helicopter departures and arrivals.

(2) Helicopters will depart the Oscura Range Center to the east and enter the low level transit route (LLTR). The LLTR is a one-kilometer wide corridor that follows the east side of Range Road 9. Range Road 9 is the westernmost of the two prominent roads northeast of Oscura Tower, used by 49 FW aircrews to establish downwind position for right traffic in the conventional pattern. Helicopters will fly at or below 150 feet AGL. Once past Check Point Alpha (approximately 43 DME) and in the FAADS test area, helicopters will remain at or below 150 feet AGL.

(3) Helicopters returning to Oscura will remain in the same LLTR at or below 150 feet AGL.

(4) Aircraft will remain above 500 feet AGL (approximately 5150 feet MSL) while over the LLTR. This is particularly important when descending to, and flying downwind for, the right pop pattern. Aircraft will remain above 1000 feet AGL while over the FAADS test area in the northwest corner of the Oscura airspace.

2-9. Range Clearance:

a. All aircraft must receive clearance from Cherokee (UHF 294.6 - Primary (P)/295.2 - Secondary (S)) to enter the WSMR complex airspace. If radio contact with Cherokee cannot be established, aircraft may contact Holloman Approach Control or Oscura Range for assistance. Entry approval implies that the aircraft has been previously scheduled for the appropriate working area and applies only to the designated area. Clearance for a drop-in use of Oscura Range may be issued by Cherokee, but should not be expected due to the large volume of research and development (R&D) testing on WSMR. Drop-in aircraft, when approved by Cherokee, can proceed on range, but are not authorized to expend ordnance until approval to drop is received from the RCC or range manager. Cherokee will notify the 49 OSS/OSOS of all drop-in traffic. Cherokee will clear the flight to Oscura Range working frequency.

b. For Oscura Range (Class A), all aircraft will establish two-way radio communication with Oscura Range (UHF 342.2 (P)/267.8 (S)) prior to entering the range airspace except as noted in paragraphs 2-8a and b. Upon initial contact with Oscura Range, the RCC will clear the flight into the delivery pattern or direct it to hold for entry. The RCC will inform the flight of the active range, direction of traffic, and altimeter setting. The RCC will inform the flight when personnel and equipment are on the cold range. Flight members will acknowledge this information with their call sign. The flight will provide the RCC with the following information: flight call sign, number and type of aircraft, individual crew numbers, and intended delivery events. Flights will not proceed beyond the holding point until a specific clearance to enter the range delivery pattern has been issued; prior telephonic contact with the RCC is encouraged for Holloman-based aircraft in order to reduce the number of radio transmissions. Oscura Range phone numbers are (86) 679-2722/2720, DSN 272-2720 or Commercial (505) 479-2775.

c. For Oscura Range (Class B), the general procedures of paragraph c above apply with the exception that no RCC will be on the range. Clearance on range, range information, and clearance to release will be issued by the range crew chief. Once the crew chief clears the flight "HOT", all ordnance deliveries will be under flight control. All range restrictions and radio calls that apply under Class A operations apply under Class B operations except clearances for individual delivery passes are not required. The flight lead along with individual aircrews have primary responsibility for flight and range safety. The range crew chief will ask the flight to hold "high and dry" if scoring personnel experience difficulties and will call "knock-it-off" if a dangerous situation is developing. Once a hold call or a "knock-it-off" has been issued, the flight must be recleared to commence deliveries. Scores will normally not be passed to the flight; however, they will be called back to the units. Fighters should maintain good spacing to ensure reliable scoring.

NOTE: Low angle strafe will not be allowed under Class B and foul altitudes will differ in accordance with ACCR 55-series regulations.

d. For Oscura Range (Class C) with pre-coordination, if Oscura is unmanned, the range may operate as a Class C range. Clearance on range and altimeter setting will be issued by Cherokee. Prior to entering the range, aircraft will make the following radio transmission in the blind on the working range frequency (normally UHF 342.2 - primary): "Call sign entering Oscura from (applicable direction/reference point)." All aircraft will establish two-way communication with aircraft already on the range. Separate aircraft or flights will not operate simultaneously on Oscura. Subsequent flights will hold at the toe until the preceding flight exits the range. If a previous flight is not on the range, the entering flight will make a clearing pass at 500 feet minimum prior to ordnance delivery. The flight lead will be the clearance authority for ordnance delivery. If range personnel arrive at Oscura during Class C operations, the flight will hold high and dry and establish radio contact with them on the working range frequency. After radio communications are established with range personnel, Class A/B operations will commence in accordance with paragraphs c and d above.

NOTE: Low angle strafe (Hot or Dry) will not be allowed under Class C and foul altitudes will differ in accordance with ACCR 55-series regulations.

2-10. Authorized Ordnance. Expenditures on Oscura Range are limited to inert ordnance specifically designed for training.

a. Expenditures on the nuclear, conventional, and tactical targets will be limited to the following ordnance:

- (1) BDU-33.
- (2) MK-106.
- (3) Practice shape (BDU-8, BDU-12, and similar ordnance types with approval from 49 OSS/OSTA). (Nuclear target only.)
- (4) 2.75 Inch rocket (Inert/white phosphorous).
- (5) LUU-2 (flare) and MK 24 (flare).
- (6) MJ-7, MJ-10, MJ-206 (Self-protection Flare) (Deployment is authenticated from minimum of 500ft to a maximum of 6,000ft AGL).

b. Expenditure on the strafe targets will be limited to the following ordnance:

- (1) 7.62 mm (training projectile (TP)/target practice tracer (TPT)).
- (2) 20 mm (TP/TPT).
- (3) 30 mm (TP).
- (4) 50 cal (TP/TPT).

NOTE: To reduce the hazard of range fires, TPT will be loaded in ratios no less than four to one.

2-11. Ordnance Procedures. To reduce target destruction, the left and right ranges will normally be used on alternating days. The left range will be used on odd days and the right range on even days. This may be altered at RCO's discretion. The procedure does not preclude use of the nuclear target or night range operations on odd days, since these events can be done only on the right range. Normally both strafe targets on the "HOT" range will be holsted for operations. It is desired, but not required, that flight members alternate strafe targets to reduce the ricochet hazard and avoid jet wash from the proceeding aircraft during dive recovery.

a. Timer/system checks not involving arming of the weapons release circuits may be accomplished at the discretion of the aircrew. Initial activation and arming of weapons release circuitry by placing the master arm switch to the arm position is authorized only when the aircraft is in a position from which an immediate release would impact within the WSMR real estate boundary.

b. After completing all weapons deliveries, flight leads will rejoin their flights, visually confirm munitions expenditure, and obtain an armament safety check from the flight. The aircraft operating single-ship will have the RCO confirm munitions expenditure through observed ordnance impacts/scores. Passes made for visual confirmation by the RCO will be no lower than 200 feet AGL, offset from the tower, and no faster than 300 knots indicated airspeed (KIAS).

c. Armament system malfunctions will be handled in accordance with applicable ACCR 55-series procedures or applicable aircrew operational procedures manuals.

(1) When a computer-aided weapons release results in an impact error greater than 1000 feet - conventional or 3000 feet - nuclear, cease deliveries in that mode.

(2) Ordnance fired or released through aircrew error is an unintentional release. An unintentional release is not a system malfunction, but continued ordnance delivery will be at the discretion of the RCO or flight lead.

(3) Ordnance which has been fired or released without command by the aircrew is an inadvertent release. An inadvertent release is a release malfunction. All deliveries will cease and the malfunction will be handled appropriately.

(4) All unintentional and inadvertent releases which impact on WSMR, but outside the range safety impact area will be reported through the RCO to Cherokee. Cherokee in turn will pass information to WSMR, Range Control, STEWS-NR-CR Bldg 300, (505) 678-2222. All releases which result in off-range impacts will be reported to 49 FW Command Post (49 FW/CPD) (Raymond 14 - UHF 381.3). The following information will be provided to the RCO and Raymond 14:

- (a) Call sign and aircraft type.
- (b) Type of released object.
- (c) Time and description of incident.
- (d) Location of impact point.
- (e) If impact point unknown, location of aircraft at time of release. Include aircraft heading, altitude, and airspeed.

(5) Any item which failed to properly release or fire and is still carried by the aircraft will be considered hung ordnance. (Exception: BDU-33/MK-106 ordnance remaining in a SUU-21 will not be considered hung if the SUU doors are closed.) Aircraft recovering at Holloman with suspected or actual hung ordnance will contact Holloman Approach Control (UHF 324.3) and fly the hot gun route. The Holloman hot gun route follows the normal recovery ground track, avoiding overflight of populated areas, and terminates with a straight-in approach to the active runway.

(6) Runaway gun procedures are:

(a) If on final, recover the aircraft and fly straight ahead until the gun stops firing. Attempt to keep as many impacts as possible within range safety impact areas. After recovery, safe all switches.

(b) If other than on final, aim toward an uninhabited area. Immediately safe all switches. Attempt to keep as many impacts as possible within the range safety impact area if on Oscura Range.

(c) Recover via hung bomb route to straight in Runway 22/25 and de-arm in arm/de-arm Golf.

2-12. External Store Jettison Procedures. These procedures are not intended to deny aircrews the option of immediate jettison if, in their judgment, retention of external stores will jeopardize aircraft control or aircrew safety. The external stores jettison area for Oscura Range is directly north of the nuclear target, beyond the foul line/range access road. Jettison passes will be controlled by the RCO and performed in accordance with technical order procedures. For controlled jettison, the aircraft will overfly the nuclear target on a magnetic heading of 3480 at a safe separation altitude (1000 feet AGL minimum) and jettison the stores when the aircraft passes over the foul line/range access road (abeam the main tower). The Oscura Range jettison area will be used for inert/training ordnance only.

2-13. Weather:

a. The range towers will be evacuated and range operations closed when surface winds equal or exceed 45 knots, including gusts.

b. Low angle strafe panels will be lowered when surface winds exceed 25 knots, steady state.

2-14. Emergency Procedures and Unusual Situations. An emergency or unusual situation should be declared as soon as possible, consistent with maintaining aircraft control, to permit the RCO and flight lead to provide maximum assistance from available sources and allow all necessary support actions to be taken. The RCO will anticipate the possible recovery at Holloman of any aircraft operations single-ship which experiences radio failure (NORDD). The RCO will notify Cherokee and Holloman Approach Control of the NORDD aircraft's departure from the range. Guard frequency will be used as necessary during emergency situations.

a. Pilots experiencing loss of radio contact will:

(1) Cease all deliveries.

(2) Attempt contact with the range on the back-up frequency. If contact is established, operations may continue on the back-up frequency.

(3) If contact is not established, maintain pattern spacing and make a pass by the tower on the attack heading, rocking the aircraft's wings on final, and turning in the direction of pattern traffic.

(4) Rejoin of the NORDD aircraft will be as prebriefed by the flight lead.

b. If practical and conditions permit, pilots of a NORDD aircraft with an emergency will:

(1) Cease all deliveries.

(2) Attempt contact with the range on the back-up frequency. If contact is established, state nature of emergency and intentions.

(3) If contact is not established, maintain pattern spacing and make a pass by the tower on the attack heading, rocking the aircraft's wings on final, and turning opposite the direction of pattern traffic.

(4) Rejoin and escort of the NORDD aircraft with the emergency will be as prebriefed by the flight lead.

c. Oscura Range has three radios and frequencies available for radio communication. The primary and secondary frequencies will be used to control flights on the range. Guard frequency will be used for emergency or quick reaction situations communications. If loss of radio communications with the range occurs on either the primary or secondary frequency, aircraft on range will cease ordnance deliveries, maintain downwind pattern altitude (or an altitude specified by flight leader), and attempt radio contact on the frequency not being used. Ordnance deliveries may resume when radio communications are reestablished. If communications are not reestablished, aircraft will contact Cherokee for assistance in establishing the future status of Oscura Range radios. If a lengthy delay is expected in the operation of the range radios, aircraft will depart the range, clearing off with Cherokee.

d. If an aircraft accident occurs on the range, the RCO will be the on-scene commander until relieved by competent authority. The following procedures will apply:

- (1) The range will be closed immediately.
- (2) The RCO will notify 49 FW/CPO and Cherokee of the crash and range closure. The following information will be given to the 49 FW/CPO:
 - (a) Flight call sign and position in flight.
 - (b) Type aircraft involved.
 - (c) Aircraft parent unit.
 - (d) Status of crew (if known).
 - (e) Location of the crash.
 - (f) Ordnance on board (if known).
- (3) The RCO will summon rescue and medical assistance first through 49 FW/DOC, then Cherokee.
- (4) The RCO will remain in the tower to coordinate rescue efforts and relay information as it becomes available.
- (5) All available range personnel will be dispatched to the crash site to render any assistance possible or required by the aircrew, contain any resulting fire, and secure and guard the area. Range personnel will maintain radio contact with the RCO.
- (6) The crash site will be secured and will remain guarded and undisturbed until competent authority arrives.
- (7) The using flight will be directed to depart the range. The RCO may ask the flight lead to orbit above the crash site to provide assistance.

e. In the event of an intruding aircraft, the following procedures apply:

- (1) The RCO or flight member observing the intrusion will broadcast a "knock-it-off" call.
- (2) All ordnance deliveries will cease.
- (3) The flight will be directed to hold or maneuver in order to avoid the intruder.
- (4) No attempt will be made to intercept the intruder.
- (5) The RCO will attempt to contact the intruder on Guard frequency.
- (6) The RCO will contact Cherokee in an effort to establish a radar track on the intruder.

SECTION C - WEAPONS DELIVERY PROCEDURES

2-15. General. A right pattern will be flown with left range targets and a left pattern will be flown with right range targets. Exception: Right patterns may be flown for night operations if all aircraft can remain in the WSMR airspace boundaries. A spacing pass, if flown, will be made on the run-in heading so as to pass over the appropriate range. Minimum altitude for a spacer pass will be 500 feet AGL.

2-16. Radio Clearance (Class A). Radio clearance is required for all passes, hot or dry. For all deliveries, a "Call sign, in" transmission will be made prior to rolling out on final. If clearance is not received, the aircraft will not expend ordnance. A "Call sign, off dry" transmission will be made whenever an aircraft which has been cleared "HOT" does not release ordnance. Aircraft making nuclear deliveries will make a "Call sign, final" transmission at 4 NM from the target and may receive clearance at that time if target alignment can be assured.

2-17. Fouls. Fouls will be issued to any aircrew who violates established range procedures or performs in an unsafe or dangerous manner. Any aircrew charged with two fouls or receiving a foul for a dangerous pass will be directed to cease all weapons deliveries and depart the pattern, or hold "high and dry" at the discretion of the RCO and flight lead. The following violations will be assessed as a foul:

- a. Firing past the strafe foul line. Firing closer than 1500 feet to the target will constitute a dangerous pass.
- b. Double burst during strafe (except A-10).
- c. Lazy or rolling recovery on a strafe pass.
- d. Exceeding authorized dive angle parameters (5 to 15 degrees/0 to 15 degrees - A-10) on a low angle strafe pass. Firing from a dive angle in excess of 20 degrees exposes the acousticscore transducer to bullet impacts.
- e. Firing or dropping ordnance on the wrong target. This constitutes a dangerous pass.
- f. Expendng ordnance without clearance.
- g. If any part of the aircraft passes below the minimum recovery altitude established for that event.
- h. Expendng or attempting to expend ordnance when the final run-in course flown varies excessively from that desired. The range officer determines excessive variations.

2-18. Conventional Weapons Delivery (Day). The term conventional weapons delivery refers to the expenditure of non-nuclear type ordnance from a level, dive, or loft parameter. Delivery may be from either a basic box or tactical pattern. A maximum of four aircraft will normally be allowed in the pattern at one time. With RCO approval, observer or chase aircraft may be allowed to operate in conjunction with and in addition to aircraft in the delivery pattern. Scoring capability exists to 100 meters for all conventional and applied tactical targets.

- a. Authorized events are:
 - (1) Low/high angle strafe (LAS/HAS).
 - (2) Level bomb.
 - (3) Low angle high drag (LAHD).
 - (4) Low angle low drag (LALD).
 - (5) Dive bomb (DB).
 - (6) High altitude dive bomb (HADB).
 - (7) Dive toss (DT).
 - (8) Rockets (RX).
 - (9) Loft.
- b. Delivery parameters are in accordance with ACCR 51-50, ACCR 55-series, or weapons delivery manual, whichever is more restrictive.
- c. Restrictions and limitations are:
 - (1) The minimum cease fire range will be 2000 feet (horizontal) for LAS.
 - (2) Only one firing burst per strafe pass (except A-10).

(3) Loft deliveries will be made only against the nuclear target from a run-in heading of 3480 magnetic.

(4) Minimum pattern altitude (other than minimum recovery altitude) for all events will be 100 feet AGL.

(5) No forward firing ordnance may be expended when personnel and equipment are operating on the opposite range.

2-19. Nuclear Weapons Delivery (Day). The term nuclear weapons delivery refers to the expenditure of simulated nuclear type ordnance from either a visual or radar directed attack. Normally a maximum of four aircraft will be allowed in the delivery pattern at one time. With RCO approval, observer or chase aircraft may be allowed to operate in conjunction with and in addition to an aircraft in the delivery pattern. Scoring capability exists out to 610 meters for the nuclear target.

a. Authorized events are:

(1) Visual/radar laydown (VLD/RLD).

(2) Visual/radar low angle drogue delivery (VLADD/RLADD).

(3) Toss bomb (TB).

(4) Stabilized climb bomb (stab climb).

b. Delivery parameters are in accordance with ACCR 51-50, ACCR 55-series, and the aircraft's weapons delivery manual, whichever is more restrictive.

c. Restrictions and limitations are:

(1) Only laydown events using MK 106 training ordnance are authorized for delivery run-ins from Trails. Attack heading will be 2140 magnetic.

(2) Minimum pattern altitude (other than minimum recovery altitude) for all events will be 100 feet AGL.

2-20. Night Weapons Delivery. Night operations procedures will be used from sunset to sunrise. A maximum of two aircraft will be in the delivery pattern at any time. The maximum excludes an aircraft (either similar or dissimilar) flying a right-hand pattern for the sole purpose of providing airborne flare illumination.

a. Targets are:

(1) All conventional and nuclear deliveries will be made on the nuclear target on the right range.

(2) All strafe will be made against the high angle strafe target.

b. Authorized events are:

(1) Conventional - same as day.

(2) Nuclear - same as day.

c. Delivery parameters are in accordance with ACCR 51-50, ACCR 55-series, and weapons delivery manual, whichever is more restrictive.

d. Target illumination is required for night operations except when non-illumination is coordinated with 49 OSS/OSTA and specific justification exists, such as operational readiness inspection requirement. Night weapons delivery may be conducted using ground marking devices or airborne flares for illumination. Ground illumination is not required when aircraft are equipped with night operations equipment.

(1) For ground illumination, a minimum of two ground markers are required. Ground illumination of targets will be as depicted in Figure 2-5.

(2) For airborne flares, a minimum of one good flare is required (no ground markers required).

e. Mission briefings will include the airborne flare procedures to be used by each flareship. Delivery passes will be aborted for safety when ignited, burned out, or dud flares present a hazard.

(1) Aircrews who observe dud flares will call out their position relative to the position of lit flares or other visible reference. When possible, the RCO will advise the flight of dud flares and relative positions.

(2) The flareship will call off with the number of flares dropped. If this number of flares does not light or dud flares are observed, the RCO will advise the flareship to suspect a hung flare and follow appropriate procedures on recovery.

f. Aircraft lighting is in accordance with individual aircraft instructions and regulations.

g. Restrictions and limitations are:

(1) Minimum pattern altitude (other than minimum recovery altitude) for all events will be as prescribed in applicable aircraft 55-series service regulations.

(2) Minimum time interval between all nuclear events will be 60 seconds.

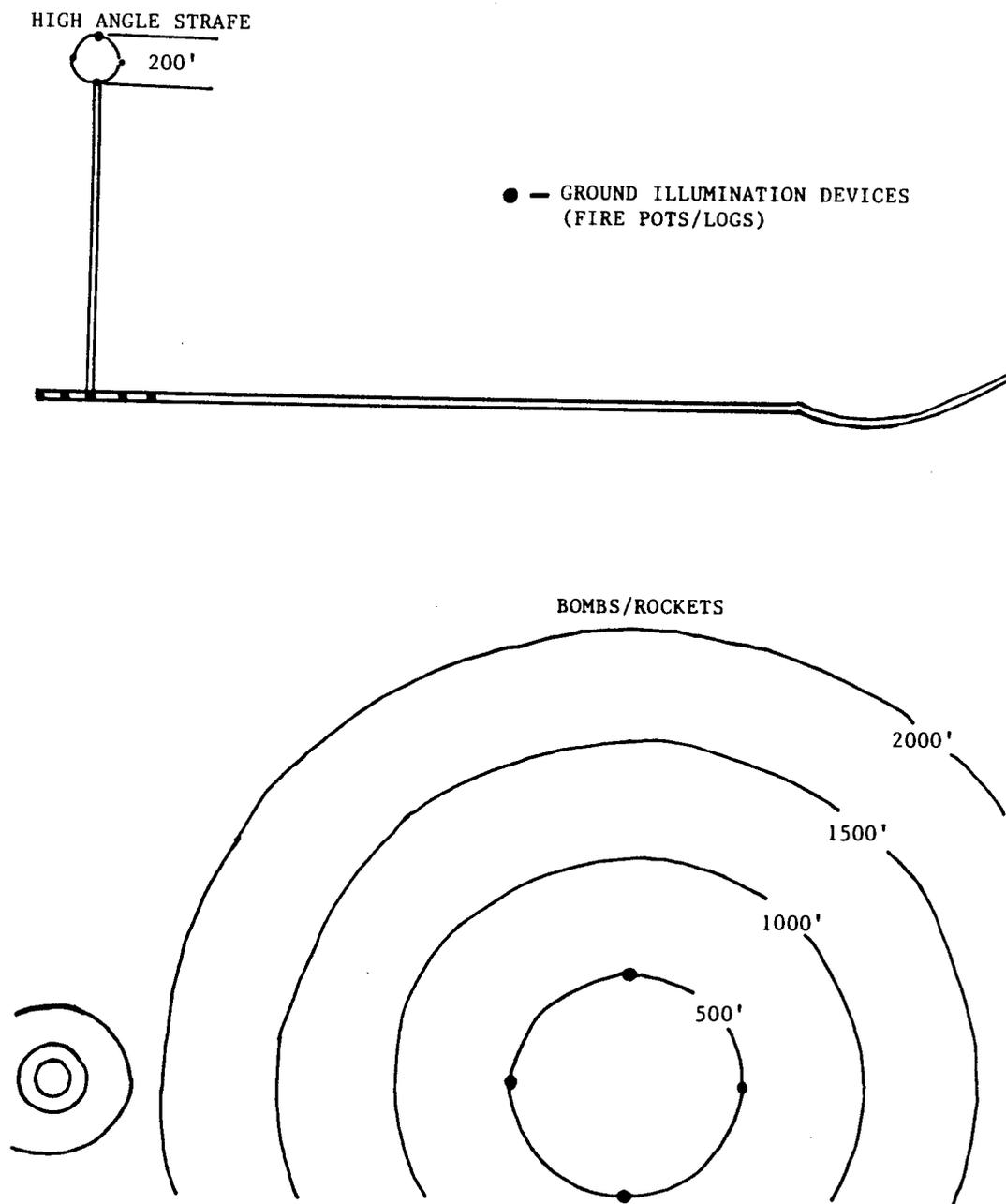


FIGURE 2-5. Oscura Range Night Layout.

CHAPTER 3
RED RIO RANGE (CLASS C)

SECTION A - RANGE DESCRIPTION AND CAPABILITIES

3-1. General. Class C ranges are defined as unmanned ranges with no scoring or aircraft control capability from the ground. Red Rio Range is a tactically configured, air-to-surface range (see Figure 2-1).

3-2. Operating Hours. Normal hours for operation are:

Day - Sunrise-Sunset/Monday through Friday.
Night - As requested.

NOTE: Units desiring range periods at times and days other than those indicated above will coordinate these requests with 49 OSS/OSOS.

3-3. Range Boundaries and Airspace Available. Red Rio Range lies entirely within the restricted airspace of WSMR (R5107B/J). Only that portion of Red Rio Range which is south of Highway 380 is within the restricted ground boundary of WSMR. Specific range ground boundaries are defined:

<u>Boundary</u>	<u>Latitude/Longitude Coordinates</u>	<u>NRD/WSMR Crash Grid</u>
NORTH	33o 52'N	72
SOUTH	33o 37'N	63
EAST	106o 04'W	TANGO (T)
WEST	106o 24'W (to point of beginning)	OSCAR (O)

NOTE: Airspace available during periods when Red Rio Range is "HOT" can be from surface to 30,000 feet MSL. When scheduling range 49 OSS/OSOS must be made aware of maximum altitude required to complete scheduled events.

WARNING

That portion of Red Rio Range Airspace north of Highway 380 and below 9000 feet MSL (R5107J) is part of Red Rio operating airspace on weekdays. On weekends this airspace is open for use by civilian aircraft unless Notice to Airmen (NOTAM) active. This warning is only to advise of a potential hazard and in no way restricts the use of this airspace or entry onto Red Rio Range from the visual route (VR)/Instrument route (IR) low level route structure.

3-4. Real Estate and Airspace Restrictions:

a. Due to the high volume of civilian air traffic in the VFR corridor adjacent to the east boundary of the range and the close proximity of Carrizozo airfield (33o 39'N 105o 55'W), flight east of TANGO requires extreme caution.

b. All deliveries will be flown so as not to overfly any building or tower within the range boundaries and outside of the firebreak road around the target area complex.

c. Units desiring to fly weapons delivery patterns which will be outside the west or south range boundaries must coordinate for that airspace with Cherokee prior to maneuvering in the airspace. Due to high use of Oscura Range, just south of Red Rio Range, airspace to the south is not normally available during day operations. Aircraft will not operate further south than 47 DME off the Holloman TACAN without approval from Cherokee.

d. There are several no ordnance zones depicted on the Red Rio Range layout (Figures 3-1, 3-2, and 3-3). These are areas of significant archaeological finds. Aircrews will exercise utmost care to ensure no ordnance impacts these areas. Disturbance of these areas could result in the closure of Red Rio Range.

e. To reduce the hazard of fires on Red Rio Range, all ordnance must impact within the firebreak road which is well inside the safety impact area as depicted in Figure 3-4. Ordnance impacting outside the safety impact area and inside that portion of Red Rio Range which is inside WSMR will be reported to Cherokee and 49 OSS/DSTA for recovery during range EOD clean up operations. Any impact outside of Red Rio Range boundaries or north of Highway 380 will be considered an off-range release. Cherokee will be notified if the off-range release occurs within the WSMR.

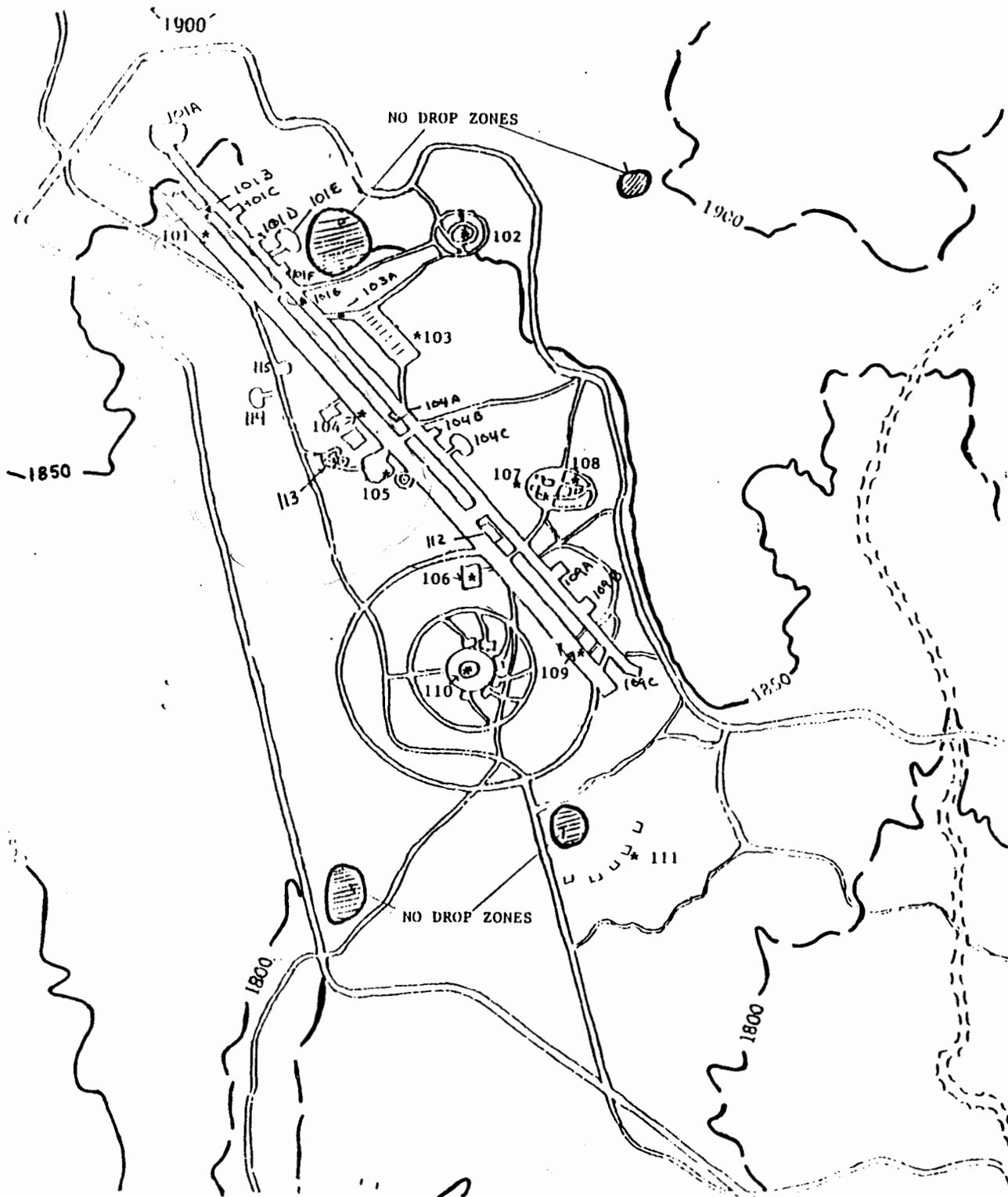
3-5. Range Description:

a. Red Rio Range is located in Red Canyon between Chupadera Mesa and Sierra Oscura Ridge. The target complex center is located on the 344o radial 54 DME from the Holloman TACAN.

b. Range elevation varies from 5700 feet MSL on the southern end of the target complex to 6200 feet MSL on the northern end. The terrain on either side of the valley floor rises rapidly above 7000 feet MSL elevation. Specific target elevations are listed in Table 3-1.

c. Attack headings are variable. The general orientation of Red Canyon is 130o - 310o.

3-6. Target Description. Target coordinates and descriptions are listed in Table 3-1. All targets have been sanitized of all spectral reflectors and cleared for laser designation. The SA-2 site dimensions are described in Figure 3-5.



NOTE: Numbers in parentheses are not listed in Table 3-1.

FIGURE 3-1. Red Rio Range - North.

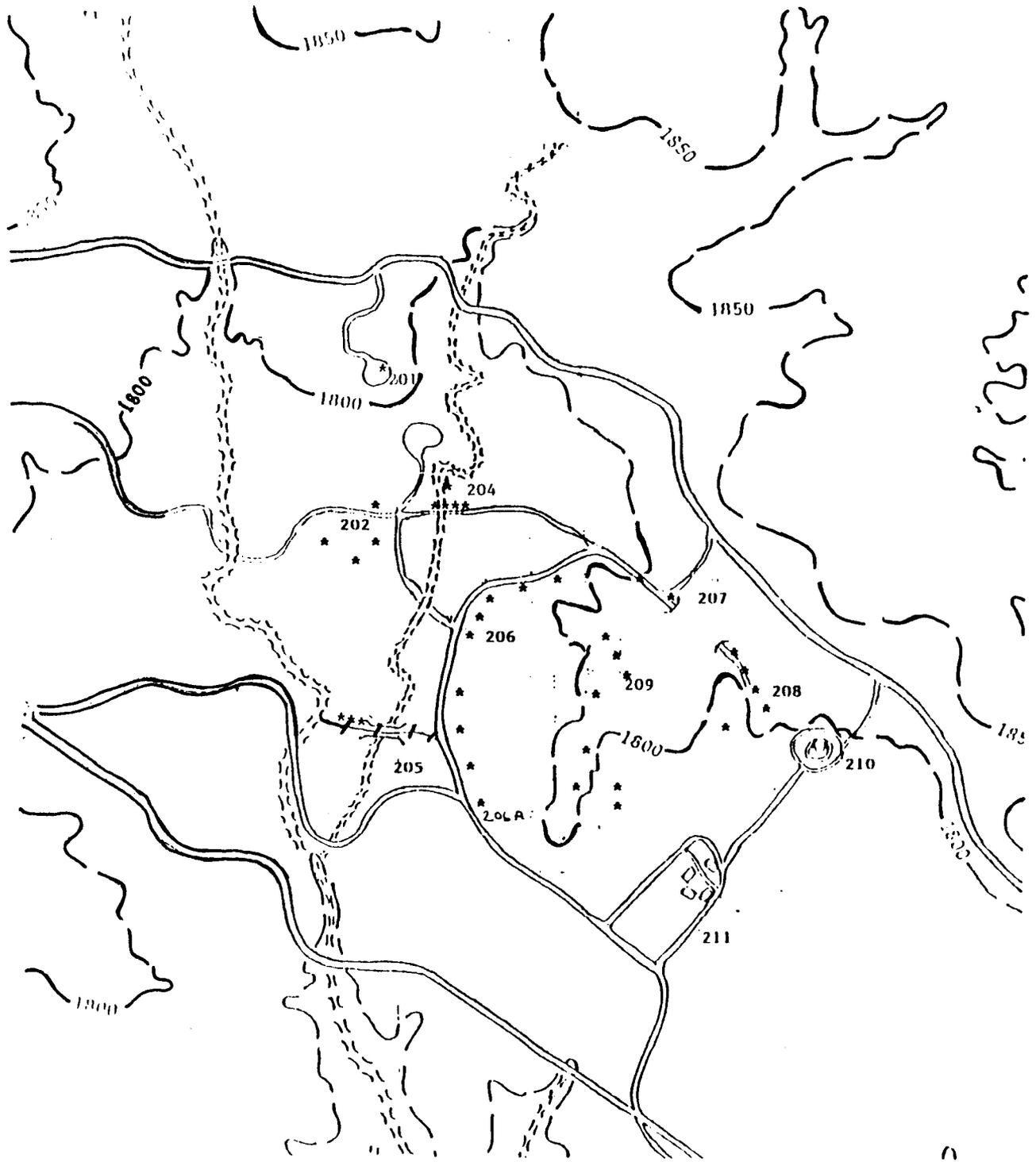


FIGURE 3-2. Red Rio Range - Center.

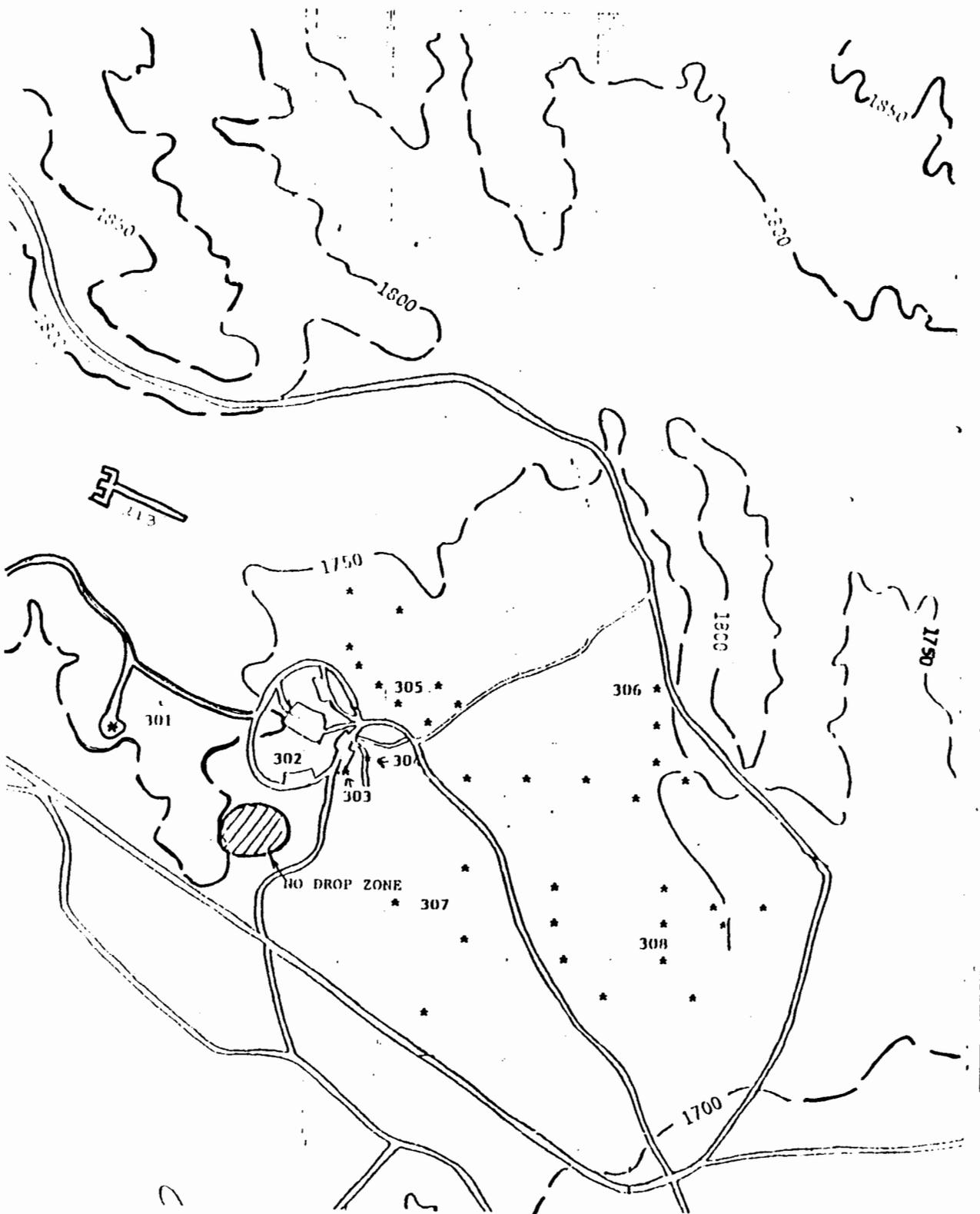


FIGURE 3-3. Red Rio Range - South.

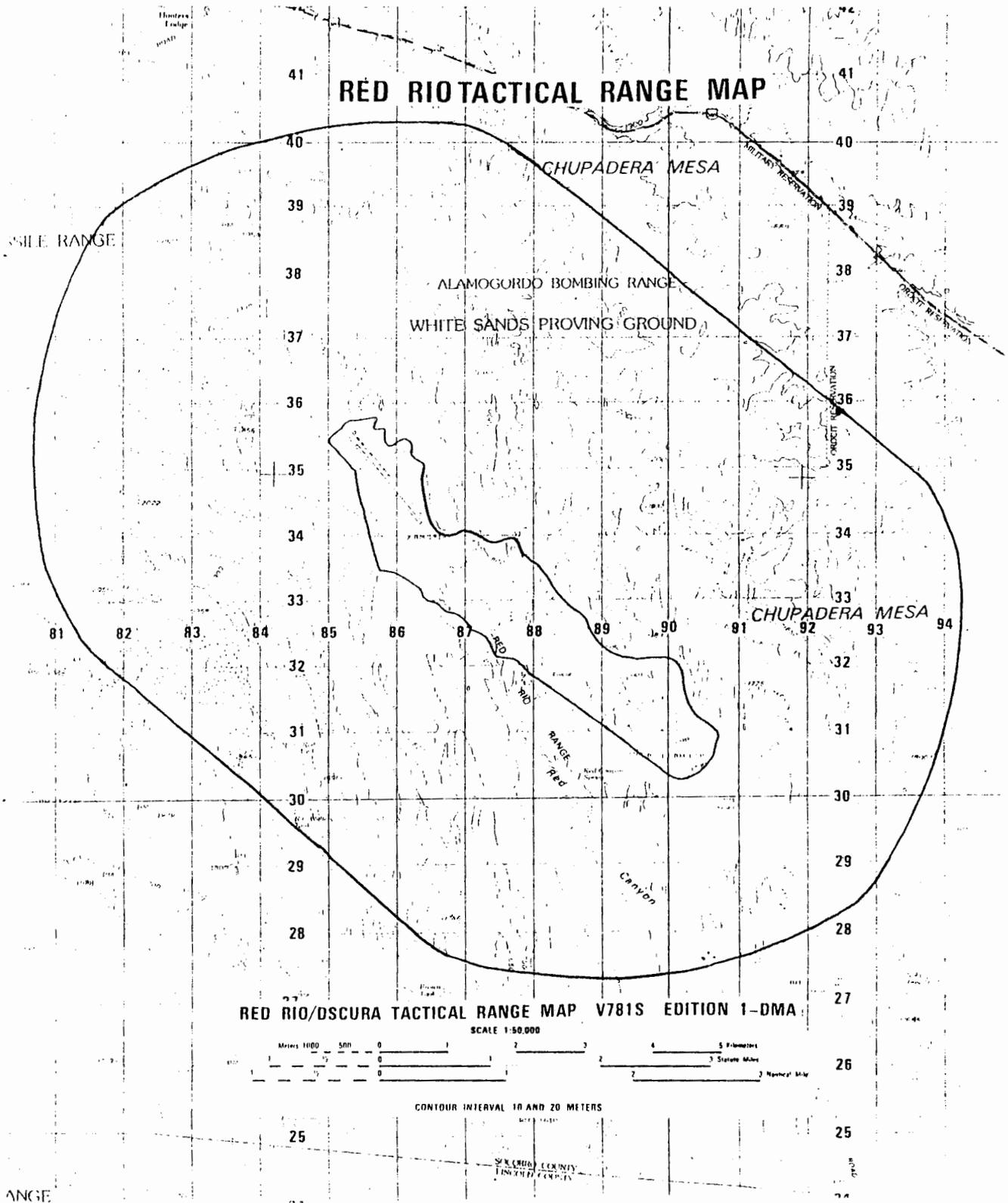


FIGURE 3-4. Scale: 1:50,000 Map, Red Rio Range with Impact Area.

TABLE 3-1

RED RIO TARGET DESCRIPTIONS

<u>NO.</u>	<u>TARGET DESCRIPTION</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>UTM</u>	<u>ELEVATION</u>
101	2 AC ON RUNWAY	33o45'13.118	106o14'10.618	85493533	6062'
101A	2 AC IN REVETMENT	33o45'20.280	106o14'14.685	85393555	6079'
101B	1 AC HOLDING/TAKE OFF	33o45'17.473	106o14'13.286	85423546	6065'
101C	1 AC IN REVETMENT	33o45'15.518	106o14'09.260	85533540	6103'
101D	1 AC IN REVETMENT	33o45'11.992	106o14'05.006	85643529	6124'
101E	1 AC IN REVETMENT	33o45'09.261	106o14'01.907	85723521	6072'
101F	1 AC IN REVETMENT	33o45'06.785	106o14'01.498	85723513	6044'
101G	1 AC ON TAXIWAY	33o45'04.380	106o14'00.051	85763506	6060'
102	GUN SITE W/RADAR	33o45'05.917	106o13'46.710	86103510	6113'
103	8 AC IN REVETMENTS	33o44'58.528	106o13'52.758	85953487	6019'
103A	1 AC IN REVETMENT	33o45'01.787	106o13'56.178	85863498	6077'
104	2 AC IN CENTER RUNWAY	33o44'53.904	106o13'53.888	85923473	6029'
104A	1 AC IN REVETMENT	33o44'53.254	106o13'50.060	86013471	5991'
104B	COVERED REVETMENT	33o44'51.338	106o13'46.600	86103465	5974'
104C	2 AC IN REVETMENT	33o44'50.121	106o13'44.382	86163461	6069'
104D	3 STORY BUILDING	33o44'55.320	106o13'57.966	85813478	6033'
105	HELO MAINTENANCE AREA	33o44'49.677	106o13'53.421	85933460	6077'
106	MOTOR POOL	33o44'39.538	106o13'45.607	86123429	6064'
107	SA-3 SITE	33o44'48.912	106o13'37.797	86333457	6001'
108	POL AREA	33o44'48.414	106o13'35.073	86403456	5998'
109	2 AC TAKING OFF	33o44'34.670	106o13'36.498	86363413	5981'
109A	COVERED REVETMENT	33o44'39.964	106o13'36.078	86373430	5991'
109B	1 AC IN REVETMENT	33o44'37.534	106o13'34.114	86423422	5935'
109C	1 AC IN REVETMENT	33o44'32.588	106o13'29.986	86523407	6011'
110	SA-2 SITE	33o44'32.208	106o13'44.653	86153406	5957'
111	8' GUN IMPLACEMENT	33o44'13.007	106o13'32.749	86443347	5937'
112	BASE OPERATION TOWER	33o44'44.515	106o13'43.326	86183444	5970'
113	GUN SITE	33o44'49.708	106o13'56.024	85863460	6120'
114	MOBILE GUN	33o44'57.797	106o14'05.443	12163602	6000'
115	RADAR	33o44'58.550	106o14'01.098	85733488	5980'
201	1 APC W/RADAR	33o44'19.783	106o12'52.208	87493366	6098'
202	4 APCs W/MISSILE	33o44'03.674	106o12'49.136	87563317	5869'
204	DAM W/4 TRUCKS & SUB	33o44'02.592	106o12'42.388	87743313	5846'
205	RAIL BRIDGE W/TRAIN	33o43'49.162	106o12'47.084	87613272	5778'
206	CONVOY CENTER	33o44'02.418	106o12'32.433	87993312	5888'
206A	WEST END CONVOY	33o43'47.130	106o12'42.492	87733265	5802'
207	TUNNEL ENTRANCE	33o43'58.701	106o12'23.591	88223300	5873'
208	TUNNEL EXIT	33o43'53.782	106o12'18.169	88363285	5886'
209	9 TRUCKS AND APC W/MISSILES	33o43'56.407	106o12'31.074	88033294	5956'
210	TANK ON HILL (LOLLIPOP)	33o43'42.361	106o12'09.752	88573250	5821'
211	SA-4 SITE	33o43'32.331	106o12'17.744	88363219	5784'
213	LIVE DROP TARGET	33o43'14.962	106o11'55.684	88923185	5727'
301	2 TRUCKS W/RADAR	33o43'02.045	106o11'53.076	88983125	5749'
302	TRUCK PARK	33o43'02.529	106o11'35.347	88443126	5743'
303	HQ W/JEEPS	33o43'00.417	106o11'31.097	89553119	5702'
304	2 RADAR VANS	33o43'00.077	106o11'29.080	89603118	5728'
305	9 TANKS	33o43'06.440	106o11'30.214	89573138	5198'
306	7 APCs W/GUNS	33o43'02.368	106o11'07.248	90163125	5656'
307	2 SA-8s AND 1 TANK	33o42'41.482	106o11'12.482	90033061	5579'
308	3 ZSUs AND 8 TANKS	33o42'42.673	106o11'03.330	90263039	5596'

* ELEVATION IS +/- 300'

NOTE: LIVE ordnances will only be dropped by 49 FW Units until completion of environmental assessment IAW the Record of Environmental Consideration (REC). Live ordnance will only be dropped on Target 213. All live drop operations will be coordinated through 49 OSS/OSTW Ext 3365

NOTE: Target latitudes/longitudes from 1993 GPS Survey.

RED RIO SA-2 SITE

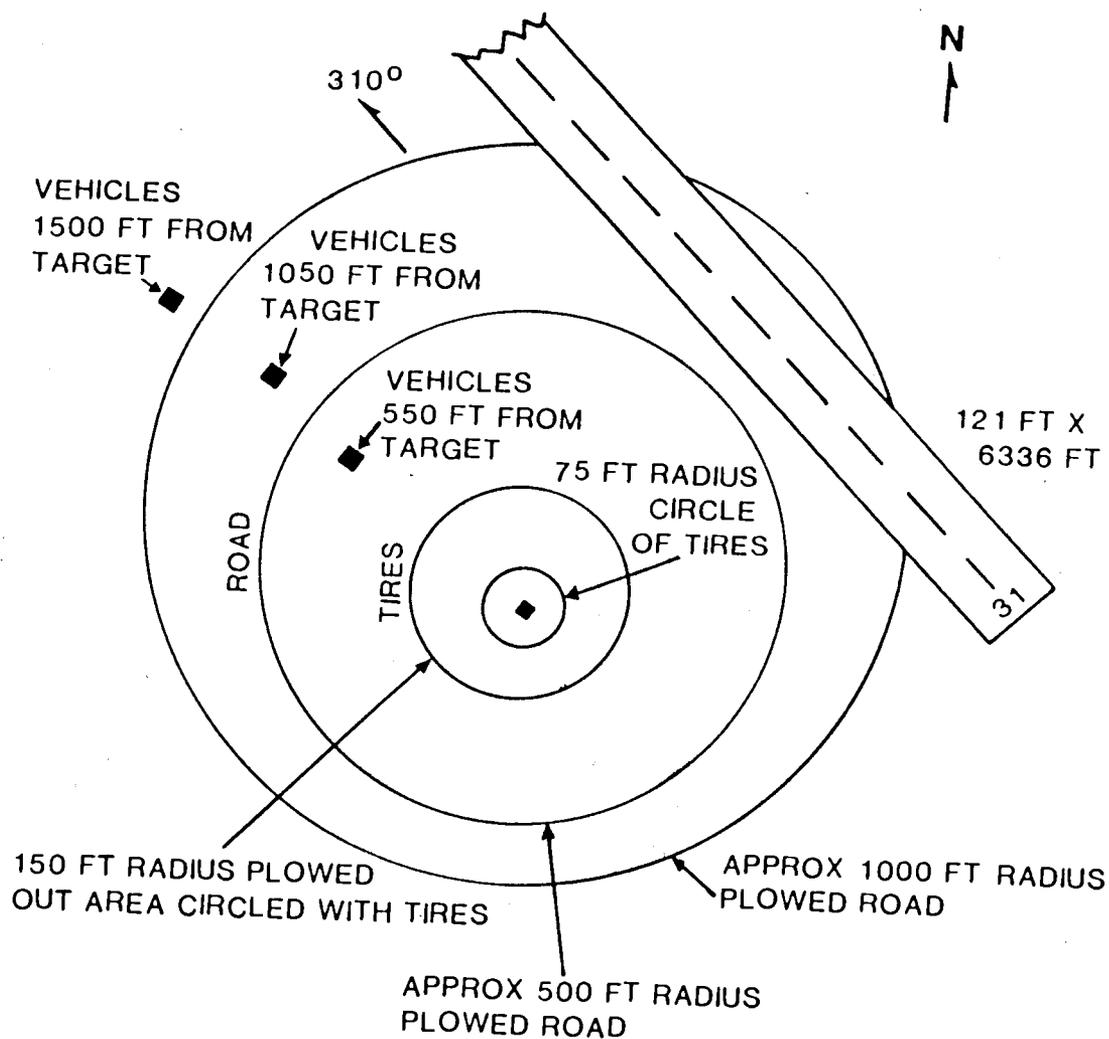


FIGURE 3-5. SA-2 Site.

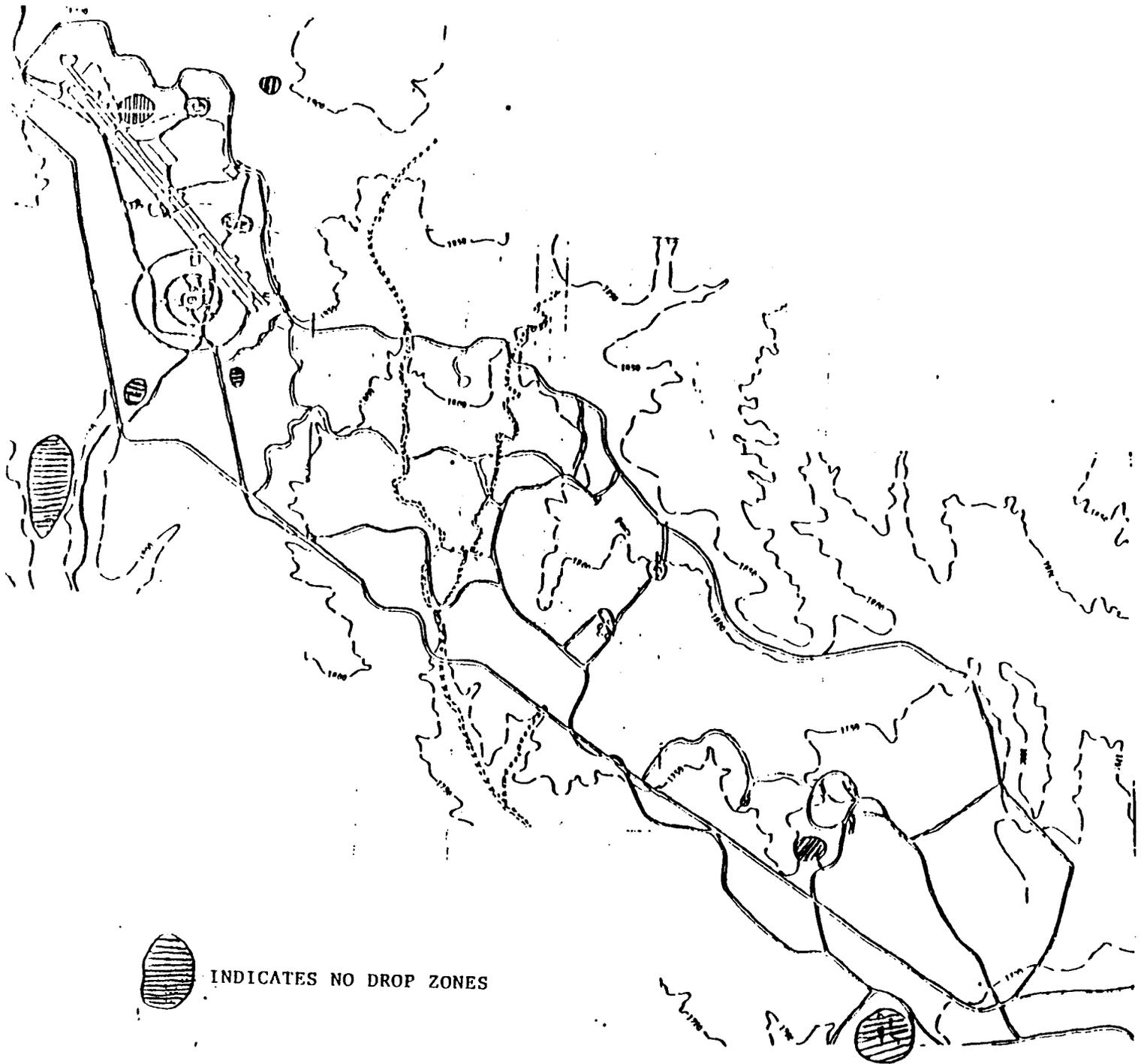


Figure 3-6 RED RIO No Drop Zones

SECTION B - RANGE OPERATING PROCEDURES

3-7. Area Overflight. No portion of WSMR may be overflown without clearance from Cherokee. Holloman Approach Control or Albuquerque ATC Center may relay flight clearance via land-line communication with Cherokee. Aircraft cleared for overflight will adhere to all restrictions imposed by the clearing agency. All variations/deviations from issued clearances once on the range must be approved by Cherokee. When the range is "HOT", flight through Red Rio airspace is prohibited unless cleared by Cherokee and with the using flight's approval.

3-8. Range Holding, Entry, and Departure:

a. Holding for range entry will be at Tralls, 33o 43'N 105o 57'W (358o/53 DME, Holloman TACAN). Tralls is a dirt road intersection with Highway 380 on the west side of the Lava flow which is west of Carrizozo. Holding will be at 10,500 feet MSL, 53 to 58 DME inbound on the Holloman TACAN 358 radial, right-hand turns. See Figure 2-1 for holding pattern depiction.

CAUTION

Aircraft may be holding at Tralls at 12,500 feet MSL awaiting entry on Oscura Range.

b. Entry procedures for Red Rio Range. Prior to entering Red Rio Range, radio contact with Cherokee (UHF 294.6(P)/295.2(S)) will be established. Cherokee will issue clearance to enter the range, providing available altitudes, times for use, and the working frequency. Normally the working frequency will be UHF 279.7. Entry onto Red Rio can be from holding at Tralls, the VR/IR low level route structure, the Sands Corridor, or other WSMR areas.

c. All aircraft will normally exit Red Rio Range to the east. Departures via the Sands and Salinas corridors may be accomplished if approved by Cherokee. Aircraft will maintain VFR and depart at appropriate VFR altitude. If IMC request, obtain an IFR clearance from Albuquerque. Aircraft which plan to exit east off range and recover at Holloman will exit the range at Canyon, 33o 39'N 106o 04'W (350o/47 DME Holloman TACAN) and proceed to Springs, 33o 31.5'N 106o 1'W (355o/40 DME Holloman TACAN). Aircraft will contact Holloman Approach Control for recovery clearance. Aircraft exiting off range and not planning to recover at Holloman may obtain an IFR clearance by contacting Albuquerque Center. Aircraft which proceed south along the VFR corridor will contact Holloman Approach Control for clearances, flight following, and advisories. All aircraft will clear off WSMR with Cherokee as soon as practical prior to departing WSMR airspace. Upon exiting the assigned WSMR working area, aircraft will not penetrate other WSMR airspace without approval from Cherokee.

d. When aircraft are operating on Oscura or Red Rio and helicopters are transiting to and from the FAADS airspace, the following procedures apply:

(1) Army helicopters will inform Cherokee and Oscura prior to departing and before recovering to the Oscura Range Center. Oscura Tower will in turn notify aircraft working the range of helicopter departures and arrivals.

(2) Helicopters will depart the Oscura Range Center to the east and enter the LLTR. The LLTR is a one-kilometer wide corridor that follows the east side of Range Road 9. Range Road 9 is the westernmost of the two prominent roads northeast of Oscura Tower, used by 49 FW aircrews to establish downwind position for right traffic in the conventional pattern. Helicopters will fly at or below 150 feet AGL. Once past Check Point Alpha (approximately 43 DME) and in the FAADS test area, helicopters will remain at or below 150 feet AGL.

(3) Helicopters returning to Oscura will remain in the same LLTR at or below 150 feet AGL.

NOTE: If possible, prior to departing Red Rio Range, and after all ordnance deliveries, a range fire check will be made. If a fire is observed, Cherokee will be informed as soon as practical. See paragraph 3-14e for additional information on range fire procedures.

3-9. Range Clearance:

a. All aircraft must receive clearance from Cherokee to enter the WSMR complex airspace. If radio contact with Cherokee cannot be established, aircraft will not enter WSMR airspace. Entry approval implies the aircraft has been previously scheduled for the appropriate working area and applies only for the designated area. Clearance for drop-in use of Red Rio Range may be issued by Cherokee if the range is not in use or scheduled to be used at the time of the request. Drop-in aircraft, if approved by Cherokee, will complete a dry clearing pass at or above 500' AGL prior to expending ordnance. Cherokee will notify 49 OSS/OSTA of all drop-in traffic. Cherokee will normally clear the flight to Red Rio Range frequency.

b. For Red Rio Range, all aircraft will establish two-way communication within the flight prior to initiating weapons deliveries. Separate aircraft or flights operating simultaneously on Red Rio Range will establish radio communication with each other and assure positive separation at all times.

3-10. Authorized Ordnance. Expenditures on Red Rio Range are limited to inert ordnance specifically designated for training. The following munitions are authorized:

- a. Practice shapes (BDU-8, BDU-12, BDU-38, and similar ordnance types)
- b. BDU-33
- c. MK-106
- d. 2.75" forward firing armed rocket (FFAR) (Inert/white phosphorous)
- e. .50 cal (TP/TPT)
- f. 7.62 mm (TP/TPT)
- g. 20 mm (TP/TPT)
- h. 30 mm (TP)
- i. 40 mm (TP)
- j. MK-82 general purpose (GP), Low (L)/High Drag (HD) (Inert/Live)
- k. MK-84 (GP/LHD) (Inert/Live)
- l. BDU-50 (Inert)
- m. BDU-109 (Inert)
- n. Group 4 consists of:
 - o. GBU-10 (Inert/Live)
 - p. GBU-12 (Inert/Live)
 - q. GBU-27 (Inert/Live)
 - r. Laser designator (ground/airborne)
 - s. LUU-2, MK-24 (Illumination Flare)
 - t. MJ-7, MJ-10, MJ-206 (Self-protection Flare) (Deployment is authenticated from minimum of 500ft to a maximum of 6,000ft AGL)

NOTE: Live ordnances will only be dropped by 49 FW units until completion of environmental assessment IAW the Record Environmental Consideration (REC). Live ordnance will only be dropped on target 213. All live drop operations will be coordinated through 49 OSS/OSTW, ext 3365.

NOTE: To reduce the hazard of range fires, TPT will be loaded in ratios no less than four to one.

3-11. Ordnance Procedures:

a. Prior to expending ordnance on Red Rio Range, an aircraft must be scheduled and cleared out to the range. If personnel are spotted on the range, weapon deliveries will cease, all weapon systems will be safed, and an airborne report will be made to Cherokee. Weapon deliveries may resume when personnel depart the range. Cherokee will relay reports of personnel being on Red Rio until departure or evacuation of those personnel occurs. In any case, all flights in whole or in part who are unfamiliar with the range and who intend to expend ordnance will make a dry clearing pass to positively identify one or more designated targets and to ensure that the area is clear of all personnel.

b. Timer and system checks not involving arming of the weapons release circuits may be accomplished at the discretion of the aircrew. Initial activation and arming of weapons release circuitry by placing the master arm switch to the arm position is authorized when the aircraft is in a position from which an immediate release would impact within the WSMR real estate boundary.

c. After completing all weapons deliveries, flight leads will rejoin their flights, visually confirm munitions expenditure, and obtain an armament safety check from the flight. If munitions expenditure cannot be confirmed through ordnance impacts, consideration should be given to recovering using hung ordnance procedures.

d. Armament system malfunctions will be handled in accordance with applicable ACCR-55 series procedures or applicable aircrew operational procedures manuals.

(1) For unintentional release procedures see paragraph 2-11c(2).

(2) For inadvertent release procedures see paragraph 2-11c(3).

(3) All unintentional and inadvertent releases which impact on WSMR, but outside the range safety impact area will be reported to Cherokee. All releases which result in off-range impacts will be reported to 49 FW/CPO (Raymond 14 - UHF 381.3). Cherokee and/or 49 FW/CPO will report the information to WSMR, Range Control STEWS-NR CR Bldg 300, (505) 678-2222. The following information will be provided to Cherokee and/or Raymond 14:

(a) Call sign and aircraft type.

(b) Type of released object.

(c) Time and description of incident.

(d) Location of impact point.

(e) If impact point unknown, location of aircraft at time of release. Include aircraft heading, altitude, and airspeed.

(4) For hung ordnance procedures see paragraph 2-11c(5).

(5) For runaway gun procedures see paragraph 2-11c(6).

3-12. External Store Jettison Procedures. These procedures are not intended to deny aircrews the option of immediate jettison if, in their judgement, retention of external stores will jeopardize aircraft control or aircrew safety. The external stores jettison area for Red Rio Range is the runway. Jettison passes will be controlled by the flight lead and performed in accordance with technical order procedures. For controlled jettison, the aircraft will overfly the runway on a magnetic heading of 310o at a safe separation altitude (1000 feet AGL minimum) and jettison the stores when the aircraft passes over the southern end of the runway. The Red Rio Range jettison area will be used for inert and training ordnance only. Live ordnance will be jettisoned on the live target (213).

3-13. Weather. Forecast from actual weather observations are not taken for Red Rio Range. Current altimeter settings for Oscura Range may be obtained from Cherokee or Oscura Range. Other weather and wind information may be obtained from Oscura Range.

3-14. Emergency Procedures and Unusual Situations. An emergency or unusual situation should be declared as soon as possible, consistent with maintaining aircraft control, to permit maximum assistance from available sources and allow necessary support actions to be taken.

a. Pilots experiencing loss of radio contact will:

(1) Cease all deliveries.

(2) Attempt contact on prebriefed back-up frequency. If contact is established, operations may back-up frequency.

(3) If contact is not established, maintain pattern spacing and make a pass on the last assigned or cleared target, rocking the aircraft's wings on final and turning in the direction of pattern traffic.

(4) Rejoin and escort of the NORDDO aircraft with the emergency will be as prescribed by the flight lead.

b. If practical and conditions permit, pilots of a NORDDO aircraft with an emergency will:

(1) Cease all deliveries.

(2) Attempt contact with the flight on the prebriefed back-up frequency. If contact is established, state nature of emergency and intentions.

(3) If contact is not established, maintain pattern spacing and make a pass on the last assigned or cleared target, rocking the aircraft's wings on final and turning opposite the direction of pattern traffic.

(4) Rejoin and escort of the NORDDO aircraft with the emergency will be as prescribed by the flight lead.

c. If an aircraft accident occurs on the range, the flight lead will be the on-scene commander until personnel are on the ground at the crash site or forced to depart due to fuel or other considerations. The following procedures will apply:

(1) The range will be closed immediately.

(2) The flight lead or designated flight member will notify 49 FW/CPO and Cherokee of the crash and range closure. The following information will be given to 49 FW/CPO:

- (a) Flight call sign and position.
- (b) Type aircraft involved.
- (c) Aircraft parent unit.
- (d) Status of crew (if known).
- (e) Location of the crash.
- (f) Ordnance on board (if known).

(3) The flight lead or designated flight member will summon rescue and medical assistance first through 49 FW/CPO, then Cherokee. The possibility of assistance from Oscura Range personnel exists and should not be overlooked.

d. In the event of an intruding aircraft, the following procedures apply:

- (1) The flight member or forward air controller (FAC) observing the intrusion will broadcast a "knock-it-off" call.
- (2) All ordnance deliveries will cease.
- (3) The flight will be directed to hold in order to avoid the intruder.
- (4) No attempt will be made to intercept the intruder.
- (5) The flight lead may attempt to contact the intruder on Guard frequency.
- (6) Cherokee will be contacted in an effort to establish a radar track on the intruder.

e. The use of tracers, 2.75 inch FFAR (White Phosphorus) and ordnance with spotting charges could quite possibly start fires on Red Rio Range. If a fire is observed on the range, the aircraft or flight observing the fire will cease flight operations and determine if the fire is inside or outside the firebreak, and report this information to Cherokee. If the fire is outside of the firebreak then all flight operation will cease and all future flights will be cancelled until the fire is extinguished. If the fire is inside the firebreak then all flight operations within a 6000 ft radius of the closest point of the fire (vertical and horizontal) will be suspended until the fire is self-extinguished (because of the possibility of unexploded live ordnance that may be present within the impact area). It is the responsibility of the flight lead to determine if a fire inside of the firebreak poses a threat to the flight. When restrictions are imposed by WSMR Fire Chief for fires outside the firebreak, WSMR will notify 49 OSS/OSTA and 49 OSS/OSOS with these restrictions and again when restrictions are lifted. If the restrictions are lifted after normal duty hours then the Holloman Command Post should be notified.

SECTION C - WEAPONS DELIVERY PROCEDURES

3-15. General. There are no restrictions on delivery patterns on Red Rio Range other than those imposed by this supplement and the terrain. A spacer/cleaning/orientation pass, if flown, will be made at a minimum altitude of 500 feet AGL. On first run attacks, range clearing may be accomplished on a dry delivery by the first aircraft crossing the range.

3-16. Radio Clearance. Clearance by Cherokee to enter Red Rio Range airspace constitutes an authorization to expend ordnance only if the aircraft has previously been scheduled for Red Rio. Drop in aircraft will not expend ordnance until procedures in paragraph 3-9a are met. Fighters will be under flight lead or FAC control as appropriate. Single-ship F-117 operations are authorized.

3-17. Weapons Delivery Restrictions:

a. Live ordnances will only be dropped by 49 FW units. Until completion of environmental assessment IAW the Record of Environmental Consideration (REC). Live ordnance will only be dropped on Target 213. All live drop operations will be coordinated through 49 OSS/OSTW, Ext 3365. All live munitions and suspension equipment expended on Red Rio will complete Attachment 2 and forward it to 49 OSS/OSTA.

b. Weapons delivery parameters and minimum altitudes will be in accordance with ACCM 51-50, ACCR 55-series, or the aircraft's weapons delivery manual, whichever is more restrictive.

c. Restrictions and limitations are:

(1) BDU-33, Rockets, strafe and MK-106 deliveries are restricted to dive/climb angles between -60 to +30, release altitudes between 100 feet through 15,000 feet AGL, and maximum release airspeed of 600 knots true airspeed (KTAS).

(2) General Purpose bombs; MK-82 (Inert) and the MK-84 (Inert) deliveries:

(a) For deliveries with dive/climb angles between -5 to +5; release altitudes between 100 feet to 2,000 feet AGL; and maximum release airspeed of 700 KTAS:

1 There are no delivery heading restrictions for targets 101 through 301.

2 Targets 302 through 308 are restricted to delivery headings between 208 and 043 True (Inclusive).

(b) For deliveries with dive/climb angles between -60 to +30; release altitudes between 500 feet to 15,000 feet AGL; and maximum release airspeed of 600 KTAS:

1 There are no delivery heading restrictions for targets 101 through 306.

2 Targets 307 and 308 are restricted to release headings between 168 and 085 True (Inclusive).

(c) For deliveries with dive/climb angles between -45 to +20 dive/climb; 1,000 feet AGL to 10,000 feet AGL release altitude; maximum airspeed is 600 KTAS:

1 There are no delivery heading restrictions for targets 101 through 213.

2 Targets 301 through 308 are restricted to delivery headings between 210 and 042 True (Inclusive).

(3) There are no delivery heading restrictions for Target 213 using MK-8(H) and MK-8(L) with delivery per ravitens in A through C above.

NOTE: GBU-24s ARE NOT AUTHORIZED ON RED RIO RANGE.

3-18. Night Weapons Delivery. Night operations procedures will be used from sunset to sunrise.

a. Delivery parameters are in accordance with ACCR 51-50, ACCR 55-series, and the aircraft's weapons delivery manual, whichever is more restrictive.

b. Target illumination is required for night conventional operations. Except for F-117, F-111F, A-6, and lantern equipped aircraft operations and when non-illumination is coordinated with 49 OSS/OSTA and specific justification exists, such as an operational readiness inspection.

(1) There are no ground marking devices for targets on Red Rio Range.

(2) A minimum of one good airborne flare is required.

c. Mission briefings will include the airborne flare procedures to be used by each flare-ship. Delivery passes will be aborted for safety when ignited, burned out, or dud flares present a hazard.

(1) Aircrews who observe dud flares will call out their position relative to the position of lit flares or other visible reference.

(2) The flare ship will call off with the number of flares dropped. If this number of flares does not light or dud flares are observed, the flare ship will suspect a hung flare and follow appropriate procedures on recovery.

(3) Aircrews will take every reasonable precaution to ensure flares land within the confines of the firebreak road.

3-19. Laser Guided Bomb (LGB) Procedures: The following are the operating procedures for the use of LGB ordnance on Red RTO Range:

a. Laser Guided Bomb (GBU-10/12 Inert) deliveries:

(1) For deliveries with dive/climb angles between 0 to -5; release altitudes between 200 feet to 5,000 feet AGL; and maximum release airspeed of 720 KTAS:

(a) There are no delivery heading restrictions for targets 101 through 103, 105 through 110, and 112 through 115.

(b) Target 104 is restricted to release headings between 234 and 172 True (Inclusive)

(c) Target 111 is restricted to release headings between 256 and 193 True (Inclusive)

(d) There are no delivery heading restrictions for targets 201 through 213.

(e) Target 301 is restricted to release headings between 245 and 090 True (Inclusive).

(f) Targets 302 through 306 are restricted to release headings between 225 and 050 True (Inclusive).

(g) Targets 307 and 308 are restricted to release headings 235 and 040 True (Inclusive).

(2) For deliveries with dive/climb angles between 0 and -25; release altitudes between 5,000 feet to 10,000 feet AGL; and maximum release airspeed to 668 KTAS:

(a) Targets 104 and 113 are restricted to release headings between 135 and 156 True (Inclusive).

(b) Target 105 is restricted to release headings between 125 and 164 True (Inclusive).

(c) Target 106 is restricted to release headings between 110 and 164 True (Inclusive).

(d) Targets 107 through 109 are restricted to release headings between 103 and 157 True (Inclusive).

(e) Targets 110 and 112 are restricted to release headings between 112 and 156 True (Inclusive).

(f) Target 111 is restricted to release headings between 106 and 132 True (Inclusive).

(g) Targets 201 through 206 are restricted to release between 284 and 330 True (Inclusive).

(h) No other target sites are authorized.

(3) For deliveries with dive/climb angles between -5 and 45; release altitudes between 200 feet to 5,000 AGL, and maximum release airspeed of 780 KTAS:

(a) There are no delivery heading restrictions for targets 101, 103, 104, 107, and 108.

(b) Target 102 is restricted to release headings between 57 and 31 True (Inclusive).

(c) Targets 105, 106, 109, 110, and 112 through 115 are restricted to release headings between 245 and 202 True (Inclusive).

(d) Target 111 is restricted to release headings between 256 and 193 True (Inclusive).

(e) There are no delivery heading restrictions for targets 201 through 204, 206, 209, 210, 212, and 213.

(f) Target 205 is restricted to release headings between 248 and 200 True (Inclusive).

(g) Targets 207 and 208 are restricted to release headings between 056 and 031 True (Inclusive).

(h) Target 211 is restricted to release headings between 245 and 192 True (Inclusive).

(I) Target 301 is restricted to release headings between 245 and 090 True (Inclusive).

(J) Targets 302 and 305 are restricted to release headings between 225 and 050 True (Inclusive).

(k) Target 306 is restricted to release headings between 221 and 273 True and between 340 and 031 True (Inclusive).

(l) Targets 307 and 308 are restricted to release headings between 240 and 265 True and between 010 and 040 True (Inclusive).

(4) For deliveries with dive/climb angles between 0 and +40; release altitudes between 800 feet and 9,000 AGL, and maximum release airspeed of 600 KTAS:

(a) There are no delivery heading restrictions for targets 101 through 301.

(b) Targets 302 through 308 are restricted to delivery headings between 208 and 043 True (Inclusive).

(5) For deliveries with dive/climb angles between -40 and +20; release altitudes between 1,000 feet to 11,000 feet AGL, and maximum release airspeed of 600 KTAS:

(a) There are no delivery heading restrictions for targets 101 through 306.

(b) Targets 307 and 308 are restricted to release headings between 191 and 080 True (Inclusive).

(6) For deliveries with dive/climb angles between -60 and 30; release altitudes between 5,000 feet to 10,000 feet AGL, and maximum release airspeed of 980 KTAS:

(a) There are no delivery heading restrictions for targets 101 through 301.

(b) Targets 302 through 308 are restricted to delivery headings between 208 and 043 True (Inclusive).

(7) For deliveries with dive/climb angles between 0 and -5; release altitudes between 10,000 feet to 30,000 feet AGL, and maximum release airspeed of 780 KTAS:

(a) Targets 101 through 105, 107, 108, and 112 through 115 are restricted to release headings between 079 and 180 True (Inclusive).

(b) Targets 106, 109, 110, and 111 are restricted to release headings between 079 and 180 True and 295 and 357 True (Inclusive).

(c) Targets 201 and 202 are restricted to release headings between 092 and 175 and 260 and 350 True (Inclusive).

(d) Targets 204 and 213 are restricted to release headings between 260 and 350 True (Inclusive).

(e) No other target sites are authorized.

(8) For deliveries with dive/climb angles between -5 and -70; release altitudes between 10,000 feet to 30,000 feet AGL, maximum release airspeed of 774 KTAS:

(a) Targets 105 through 108 and 110 through 112 are restricted to release headings between 119 and 162 True or between 299 and 350 True (Inclusive).

(b) Target 109 is restricted to release headings between 118 and 178 True and between 287 and 359 True (Inclusive).

(c) Target 201 is restricted to release headings between 092 and 175 True and between 260 and 350 True (Inclusive).

(d) Targets 202 through 205 are restricted to release headings between 110 and 153 True or between 291 and 335 True (Inclusive).

(e) No other target sites are authorized.

b. Laser Guided Bomb (GBU 10/12 Live) will only be dropped on target 213 using restrictions listed in paragraph 3-19a(1) through (7) above.

c. Laser Guided Bomb (GBU-27 Inert) deliveries with dive/climb angles between 0 and -5 and release altitude of 18,000 feet AGL as specified in aircraft weapons manual:

- (1) Targets 101 through 103 are restricted to release headings between 298 and 328 True (inclusive).
- (2) Targets 104 through 106, 109, and 112 through 115 are restricted to release headings between 301 and 317 True (inclusive).
- (3) Targets 107 and 108 are restricted to release headings between 309 and 318 True (inclusive).
- (4) Targets 205 and 206 are restricted to release headings between 130 and 140 True (inclusive).
- (5) Targets 207 through 211 are restricted to release headings between 124 and 142 True (inclusive).
- (6) Target 213 is restricted to release headings between 111 and 143 True (inclusive).
- (7) No other targets are authorized.

d. Laser designators will not be fired at any target where standing water, ice, or snow are within 2000 feet of the intended target.

e. Mission required on-range personnel must wear laser safety goggles during all periods of laser operation. Laser safety goggles must have an optical density of six at wave length 1064 nanometers.

f. The laser operator will cease lasing immediately:

- (1) In the event of a known or suspected hazard as determined by the operator.
- (2) Upon loss of target.
- (3) In the event missile flight safety, operational, or test procedures or limits are exceeded.
- (4) Upon command of Cherokee or the flight lead. The flight lead is considered the test director for laser operations on Red Rio Range.

g. The following limits apply to all LGB deliveries:

(1) Laser Beam

(a) Lasing Azimuth: 225 to 130 True.

(b) Laser Location:

Min Altitude (feet)	100	200	300	400	500	600
Max Distance (NM)	2.5	4.0	5.0	6.0	6.5	10

(c) Lasing Azimuth: 130 to 225 True.

(d) Laser Location:

Min Altitude (feet)	525	840	1050	1260	1366	2100
Max Distance (NM)	2.5	4.0	5.0	6.0	6.5	10

(2) All established targets in the Red Rio area are approved for laser operations.

h. Operating Limits

(1) Laser Beam

(a) The operator will cease lasing if he/she loses the target.

(b) The operator will lase only while the aircraft is within the limits established in paragraph 3-19.

(2) Other - Laser guided bomb drops will be controlled under MFSOP 48909.

i. Roadblocks and Evacuations.

(1) Laser operations only - Evacuate all personnel within the Red Rio Range safety impact area as required to ensure integrity.

(2) Bomb drops - For operations involving laser guided bomb drops, the evacuation for both MFSOP 48909 and LBSOP 48909 will be required.

j. Optics Restraints - The laser beam will be backstopped in the Red Rio area.

3-20. Ground Communications.

a. User must verify communications operability 60 minutes prior to requested usage times; any trouble encountered must be reported to 678-1191.

b. The emergency dial telephone for the Red Rio Range, located in the vicinity of Site D-10, will be provided.

3-21. Recovery - Salvage and Disposition. All recovery operations will be the responsibility of Holloman AFB EOD.

a. All Air Force aircraft laser designators are approved for use on Red Rio Range. Laser designator systems other than Air Force may be used:

- (1) If aiming accuracy is within 50 feet of the target.
 - (2) If radiation characteristics are similar to the Pavé Spike System:
 - (a) Wave length - 1064 nm.
 - (b) Energy/power - 110 mJ.
 - (c) Pulse repetition rates - 8 Hz.
 - (d) Beam divergence - .264 mrad.
 - (e) Pulse width - .023/sec.
 - (f) Protection standard - 1.6 J/cm.
 - (g) Hazard range - 10.4
 - (h) Optics densities - 5.3 at 1064 nm.
 - (3) With approval of WSMR Flight Safety Branch, Operations Control Division, AUTOVON 678-2205.
- b. The only authorized ordnance for laser operations are:
- (1) GBU-10 (Inert/Ilive)
 - (2) GBU-12 (Inert/Ilive)
 - (3) GBU-27 (Inert/Ilive)

CHAPTER 4

MCGREGOR BOMBING RANGE (CLASS C)

SECTION A - RANGE DESCRIPTION AND CAPABILITIES

4-1. General. Class C ranges are defined as unmanned ranges with no scoring or aircraft control capability from the ground. McGregor Range is a conventionally configured, Class C air-to-surface range (see Figure 4-1).

4-2. Operating Hours. Normal hours for operation are:

Day - Sunrise-Sunset/Monday through Friday.

NOTE: Units desiring range periods at times and days other than those indicated above will coordinate these requests with 49 OSS/OSOS.

4-3. Range Boundaries and Airspace Available. McGregor Bombing Range lies entirely within the restricted airspace of McGregor Missile Range (R51038/C). The range boundary is defined by a line connecting the following points in order:

32o 45'N	105o 58'W
32o 45'	105o 52'
32o 33'	105o 30'
32o 26'	105o 30'
32o 15'	105o 42'
32o 15'	106o 10'
32o 28'	106o 00' (to point of beginning)

NOTE: Airspace available during periods when McGregor Bombing Range is "HOT" from surface to 12,500 feet MSL.

WARNING

The airspace immediately west of McGregor Range is open to VFR traffic. Flights using McGregor Range will remain at least two miles east of Highway 54 at all times.

Any impact outside of McGregor Range boundaries or west of Highway 54 will be considered an off-range release.

4-4. Range Description. The McGregor Range layout is depicted in Figure 4-1.

a. McGregor Bombing Range is located in McGregor Missile Range west of Culp Canyon. The target complex center is located on the 143o radial 20 DME from the Holloman TACAN.

b. Target elevation is 4150 feet MSL.

c. Attack heading is 348o.

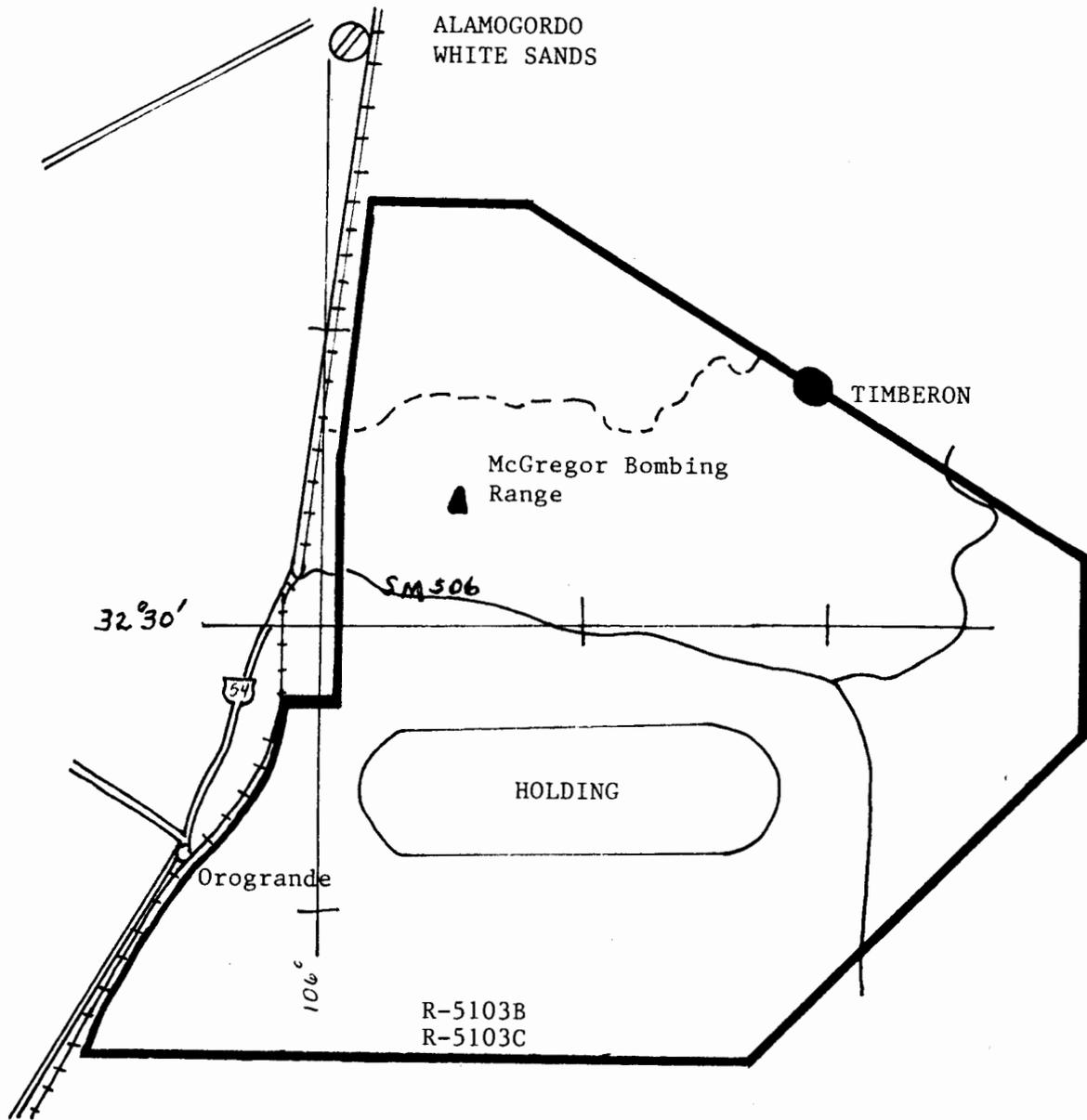


Figure 4-1. McGregor Bombing Range.

SECTION B - RANGE OPERATING PROCEDURES

4-5. Area Overflight. No portion of McGregor Range may be overflown without clearance from McGregor Control. Aircraft cleared for overflight will adhere to all restrictions imposed by the clearing agency. All variations or deviations from issued clearances once on the range must be approved by McGregor Control. When the range is "HOT", flight through McGregor Range airspace is prohibited unless cleared by McGregor Control and with the using flight's approval.

4-6. Range Holding, Entry, and Departure:

a. Holding for range entry will be within R5103B/C east of Highway 54, abeam the town of Orogrande. Holding will be below 12,500 feet MSL heading 090 - 270°. Holding aircraft will not fly north of State Highway 506 until the preceding flight has departed the range. See Figure 4-1 for holding pattern depiction.

b. Entry procedures for McGregor Range are:

(1) Prior to entering McGregor Range, establish radio contact with McGregor Control (UHF 304.6 (P)/394.0(S)) provided McGregor Control is operational. McGregor Control will issue clearance to enter the range, providing available altitudes, times for use, and the working frequency. Normally the working frequency will be UHF 356.8. If UHF contact is not possible, call Raymond 14 on channel 11 (UHF 381.3) to get telephonic clearance.

(2) During periods when McGregor Control is not operational, entry into McGregor Bombing Range is authorized provided the user has confirmed McGregor Control has in fact scheduled them for the area. Given this coordination, notify Holloman Approach Control on UHF 324.3 when entering and exiting the range.

(3) All flights will enter McGregor Range south of State Highway 506 to avoid conflict with other aircraft operating on or departing the range.

c. Exit procedures for McGregor Range are:

(1) All aircraft will normally exit McGregor Range to the northwest, remaining north of State Highway 506 until clear of McGregor airspace. All aircraft will contact McGregor Control prior to departing McGregor airspace. Departing aircraft will maintain VFR until clear of McGregor airspace, then contact Holloman Approach Control for recovery clearance. Aircraft exiting off range and not planning to recover at Holloman may obtain an IFR clearance by contacting Albuquerque Center. Aircraft that proceed south along the VFR corridor will contact Holloman Approach Control for clearances, flight following, and advisories. Aircraft will not penetrate WSMR airspace without approval from Cherokee.

(2) Prior to departing McGregor Range, and after all ordnance deliveries, a range fire check will be made. If a fire is observed, McGregor Control and 49 TFW/CPO will be informed as soon as practical.

4-7. Range Clearance:

a. All aircraft must receive clearance from McGregor Control to enter the McGregor airspace. If radio contact with McGregor cannot be established, aircraft may contact Holloman Approach Control for assistance. Entry approval implies the aircraft has been previously scheduled for the working area. Clearance for drop-in use of McGregor Range may be issued by McGregor Control.

b. All aircraft will establish two-way communication within the flight prior to initiating weapons deliveries. Separate aircraft or flights operating simultaneously on McGregor Range will establish radio communication with each other and assure positive separation at all times.

4-8. Authorized Ordnance. Expenditures on McGregor Range are limited to inert ordnance specifically designated for training. The only munitions authorized are BDU-33 and MK-106. Dry strafe is not authorized.

4-9. Ordnance Procedures:

a. Prior to expending ordnance on McGregor Range, a range clearing pass, no lower than 500 feet AGL, will be made to ensure the absence of personnel on the range. During periods of continuous operation, subsequent flights are not required to perform a clearing pass unless personnel were reported on the range by a preceding flight. Any time personnel are spotted on the range, weapon deliveries will cease, all weapon systems will be safed, and an airborne report will be made to McGregor Control. Weapons deliveries may resume when personnel depart the range. In any case, all flights who are unfamiliar with the range and who intend to expend ordnance will make a dry clearing pass to positively identify the target and to ensure that the area is clear of all personnel.

b. System checks not involving arming of the weapons release circuits may be accomplished at the discretion of the aircrew. Initial activation and arming of weapons release circuitry (placing the master arm switch to arm) is authorized when the aircraft is in a position from which an immediate release would impact within the McGregor Bombing Range real estate boundary.

c. After completing all weapons deliveries, flight leads will rejoin their flights, visually confirm munitions expenditure, and obtain an armament safety check from the flight. If munitions expenditure cannot be confirmed through ordnance impacts, consideration should be given to recovery using hung ordnance procedures.

d. Armament system malfunctions will be handled in accordance with applicable ACCR 55-series procedures or applicable aircrew operational procedures manuals.

(1) For unintentional release procedures see paragraph 2-11c(2).

(2) For inadvertent release procedures see paragraph 2-11c(3). All releases which result in off-range impacts will be reported to the 49 FW/CPO (Raymond 14 - UHF 381.3). Provide Raymond 14 with the following information:

(a) Call sign and aircraft type.

(b) Type of released object.

(c) Time and description of incident.

(d) Location of impact point.

(e) If impact point unknown, location of aircraft at time of release. Include aircraft heading, altitude, and airspeed.

(3) For hung ordnance procedures see paragraph 2-11c(5).

4-10. External Store Jettison Procedures. These procedures are not intended to deny aircrews the option of immediate jettison if retention of external stores will jeopardize aircraft control or aircrew safety. The external stores jettison area for McGregor Range is the target. Jettison passes will be controlled by the flight lead and performed in accordance with technical order procedures. For controlled jettison, the aircraft will overfly the target on a magnetic heading of 3480 at a safe separation altitude (1000 feet AGL minimum) and jettison the stores to impact within the target area.

4-11. Weather: Forecast from actual weather observations are not taken for McGregor Range. Current altimeter settings for Holloman AFB may be obtained from Holloman Approach.

4-12. Emergency Procedures. An emergency should be declared as soon as possible, consistent with maintaining aircraft control, to permit maximum assistance from available sources and allow necessary support actions to be taken.

a. Pilots experiencing loss of radio contact will:

(1) Cease all deliveries.

(2) Attempt contact on prebriefed back-up frequency. If contact is established, operations may continue on the back-up frequency.

(3) If contact is not established, maintain pattern spacing and make a pass on the last assigned or cleared target, rocking the aircraft's wings on final and turning in the direction of pattern traffic.

(4) Rejoin of the NORDD aircraft will be as directed by the flight lead.

b. If practical and conditions permit, pilots of a NORDD aircraft with an emergency will:

(1) Cease all deliveries.

(2) Attempt contact with the flight on the prebriefed back-up frequency. If contact is established, state nature of emergency and intentions.

(3) If contact is not established, maintain pattern spacing and make a pass on the target rocking the aircraft's wings on final and turning opposite the direction of pattern traffic.

(4) Rejoin and escort of the NORDD aircraft with the emergency will be as directed by the flight lead.

c. If an aircraft accident occurs on the range, the flight lead will be the on-scene commander until personnel are on the ground at the crash site or until forced to depart due to fuel or other considerations. The following procedures will apply:

(1) The range will be closed immediately.

(2) The flight lead or designated flight member will notify 49 FW/CPO (Raymond 14 - UHF 381.3) of the crash and range closure. The following information will be given to the 49 FW/CPO.

(a) Flight call sign and position.

(b) Type aircraft involved.

(c) Aircraft parent unit.

- (d) Status of crew (if known).
- (e) Location of the crash.
- (f) Ordnance on board (if known).

(3) The flight lead or designated flight member will summon rescue and medical assistance through the 49 TFW/CPO.

d. In the event of an intruding aircraft, the following procedures apply:

- (1) The flight member observing the intrusion will broadcast a "knock-it-off" call.
- (2) All ordnance deliveries will cease.
- (3) The flight will hold in order to avoid the intruder.
- (4) No attempt will be made to intercept the intruder.
- (5) The flight lead may attempt to contact the intruder on Guard frequency.
- (6) Contact Holloman Approach to establish a radar track on the intruder.

e. During ordnance deliveries it is quite possible to start fires on McGregor Range as a result of spotting charge detonations. If a fire is observed, the aircraft or flight observing the fire will notify McGregor Control. The Fort Bliss Fire Marshal will be notified and will respond as necessary to contain and extinguish the fire. Ordnance deliveries will cease and further flights will be canceled until the fire is extinguished.

SECTION C - WEAPONS DELIVERY PROCEDURES

4-13. General. There are no restrictions to delivery patterns on McGregor Range other than those imposed by this supplement and the terrain. A spacer/clearing/orientation pass, if flown, will be made at a minimum altitude of 500 feet AGL. On first run attacks, range clearing may be accomplished on a dry delivery by the first aircraft crossing the range.

4-14. Weapons Delivery Restrictions:

a. Weapons delivery parameters and minimum altitudes will be in accordance with ACCR 51-50, ACCR 55-series, or the aircraft's weapons delivery manual, whichever is more restrictive.

b. Restrictions and limitations are:

- (1) Run-in heading will be 3480.
- (2) Minimum altitude (other than minimum recovery altitude) for all maneuvering will be 100 feet AGL.

4-15. Night Weapons Delivery. Night operations are not authorized.

4-16. Helicopter Landing Area. The open field approximately 2.0NM north of state highway 506, adjacent to the power line along target access road is designated as the helicopter landing area.

Chapter 5

CASA RANGE

5-1. General. The Casa Range is part of the WSMR testing complex with numerous test sites and tracking facilities. Casa Range is used for training by 49 FW for surface attack tactics and close air support missions. All sorties are dry; no ordnance is dropped.

5-2. Operating Hours. Normal hours for operation are:

Day - Sunrise-Sunset/Monday through Friday.

5-3. Range Description. Casa Range is a dry, unmanned close air support range located approximately 65-70 nm northwest of Holloman within the northwest corner boundaries of WSMR. The north boundary is at 33° 19' N 106° 51' W and western boundary is at 33° 49' N 106° 45' W. The eastern boundary is at 33° 49' N 106° 24' W and bordered on the south by mountains at approximately 33° 20' N 106° 24' W. See Figure 5-1.

5-4. Target Description. Target coordinates and descriptions are listed in Table 5-1.

a. Martin's Ranch (4) - two trucks with two simulated missile transporters and missiles positioned near three abandoned buildings. Access is over eight miles of unimproved roads.

b. Trucks (5) - three trucks, on unprepared surface, positioned adjacent and parallel to tree line and drainage ditch. The target is next to a paved access road.

c. Radar site (8) - a radar antenna with 3 trucks positioned on a circular, semi-prepared gravel surface 100 yards from an unpaved access road.

d. Convoy (10) - five trucks positioned on an unprepared surface beside an unimproved access road approximately six miles from the paved access road.

e. Convoy (11) - seven trucks and vehicles positioned on an unprepared surface beside a road fork.

TABLE 5-1

CASA TARGET DESCRIPTION

<u>NO.</u>	<u>TARGET'S DESCRIPTION</u>	<u>LAT</u>	<u>LONG</u>	<u>UTM</u>	<u>ELEV</u>
4	Martin's Ranch	N3328.6	W10637.0	CH498050	4750
5	Trucks	N3329.0	W10641.2	CH435060	4700
8	Radar with trucks	N3342.7	E10643.9	CH395311	4800
10	Convoy	N3345.8	W10642.7	CH412372	4800
11	Convoy	N3343.3	W10629.9	CH616321	4900

NOTE: Ensure daily restrictions for the Aero cable are briefed to aircrews. Restrictions should be published on the Daily Range Schedule.

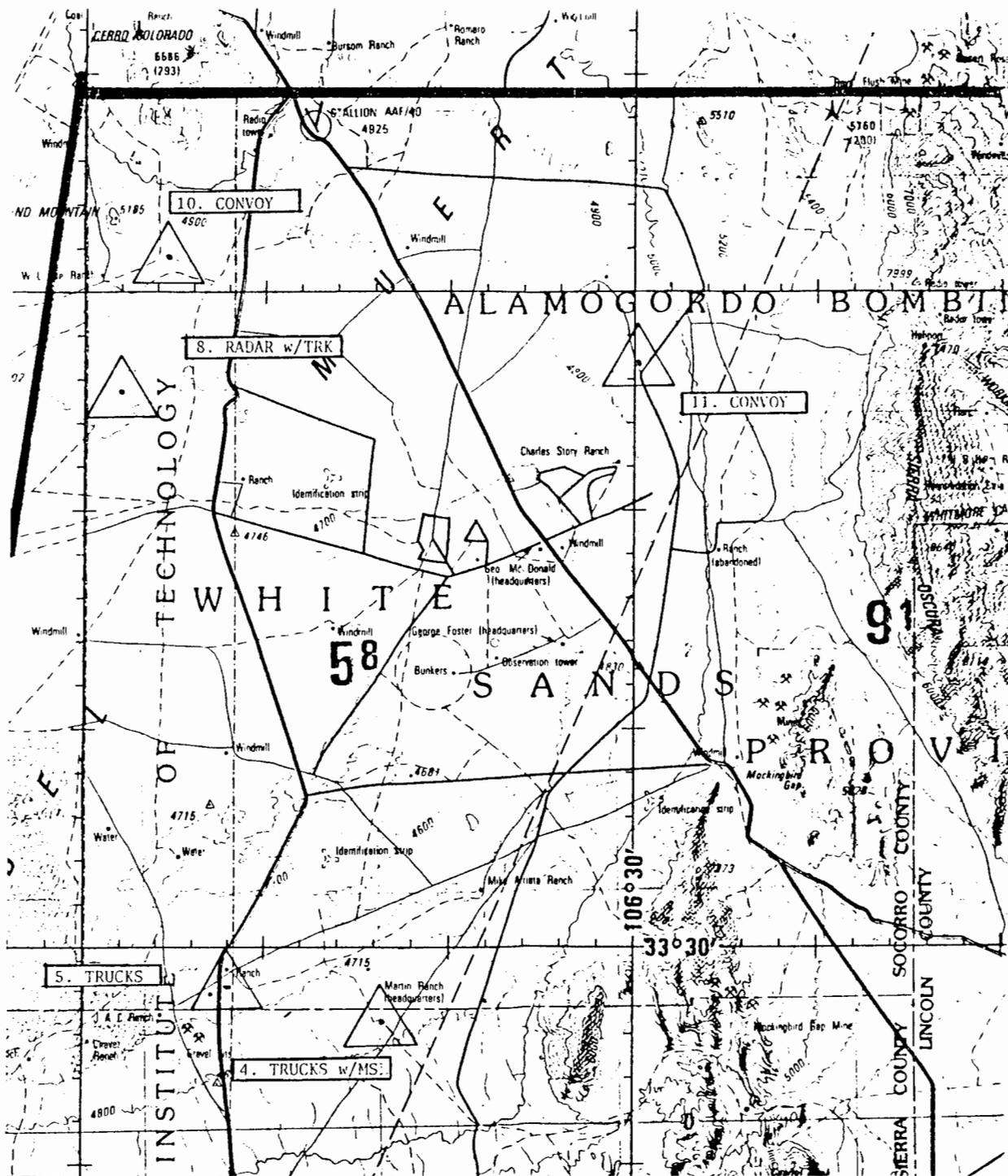


FIGURE 5-1. Scale: 1:250,000 Map, Casa Range.

Chapter 6
RANGE CONTROL OFFICER PROCEDURES

SECTION A - GENERAL

6-1. Responsibilities. The Range Control Officer (RCO) is responsible for the safe and successful accomplishment of missions flown on Oscura Range. RCOs will strictly enforce established range procedures and delivery minimums.

a. The RCO is specifically responsible for the following:

- (1) Controlling the range flight schedule and aircraft on the range.
- (2) Ensuring aircraft comply with the procedures outlined in this annex and applicable command directives.
- (3) Inspecting range facilities.
- (4) Scoring and reporting all weapons deliveries.
- (5) Supervising range personnel in the performance of tower operations during flight missions.

b. Questions concerning Oscar Range operations should be directed to 49 OSS/OSTA, AUTOVON 867-7781/2.

6-2. Scheduling. The 49 OSS/OSOS will inform the RCO of changes to the daily range schedule. Schedule changes affecting the range opening time will also be passed to 49 OSS/OSTA.

6-3. RCO Training, Checkout, and Certification Program. All Oscura RCOs will meet the prerequisites of and be checked out in accordance with AFR 50-46/ACC Supplement 1 and this supplement. RCO training and checkout will be conducted and documented by current contractor. If the contractor changes and the new contractor does not hire a current RCO, training will be conducted by 49 OSS/OSTA.

a. The following academic training will be accomplished prior to completing the on-range checkout and certification:

(1) EOD will brief all RCOs on ordnance hazards and precautions for Oscura Range. The EOD briefer will document this training by initialing the RCO certificate (RCOC) and preparing an EOD briefing statement (Attachment 1).

(2) An academic training class is conducted by range contractor. The contractor will document this training as required.

(3) An open-book examination covering the academic training and applicable regulations will be taken by each upgrading RCO. A passing score of 85 percent must be obtained. All incorrect answers will be critiqued to 100 percent. Individuals failing to achieve a passing score will be retested after a review and study of deficient areas. The individual administering the test will document the score and dates of testing on the RCOC.

(4) All RCO trainees must have an interview with the 49 OG/CC to complete their checkout program.

b. On-range checkouts will be conducted by a qualified RCO using the RCO training checklist. Training requirements will be in accordance with AFR 50-46/ACC Supplement 1.

6-4. Range Control Officer's Guide. The RCO guide will include the following publications, as a minimum:

a. Section I - Oscura Range procedures include:

- (1) Oscura Range scoring procedures.
- (2) Phone number listing.
- (3) Oscura radio operation procedures.
- (4) Fire procedures.
- (5) Crash procedures.
- (6) Range crew injury procedures.
- (7) 49 FW UHF channelization.
- (8) 49 FW AT-38, F-4, AND F-117 divert procedures.

(9) Oscura Range map.

b. Section II - RCO procedures include:

- (1) RCO opening checklist.
- (2) RCO closing checklist.
- (3) RCO training checklist.
- (4) Instructions for range officer's report.
- (5) Instructions for use of foul lines.
- (6) Squadron aircrew rosters.

c. Section III - Oscura Range basic operating instructions.

d. Section IV - Regulations include:

- (1) AFR 50-46, Weapons Ranges, as supplemented.
- (2) MCR 51-50, Volume I, General Aircrew/Pilot Training.
- (3) MCR 55-4, F-4 Aircrew Operational Procedures, as supplemented.
- (4) MCR 55-117, F-117 Pilot Operational Procedures, as supplemented.
- (5) ACCR 55-138, T-38 Aircrew Operational Procedures, as supplemented.
- (6) HAFBR 55-3, Flight Operations Control.

e. RCOs will review the RCO guide for currency and will note any discrepancies on the range officer's report.

6-5. Other Range Documents:

a. A visitors log will be maintained at Oscura Range. All visitors will sign in with name, grade, duty title/position, date, and purpose of visit. All RCOs will sign this log.

b. A RCO read file for all RCOs is maintained in the Oscura Range tower. RCOs will sign off review of read items in the read file located in the Oscura Range tower.

SECTION B - RANGE CONTROL OFFICER DUTIES

6-6. General:

a. For general duties, reference AFR 50-46. The primary duty of the RCO is the professional control of range traffic and the issuance of instructions which will ensure the safe completion of weapons delivery missions. The RCO must use sound judgment when controlling a mission and do everything possible to prevent dangerous situations from developing. The RCO is in complete command of the range during a tour of duty and is directly responsible for all air-to-surface operations. The RCO is the final authority concerning decisions on all matters relating to aircraft operations at Oscura Range. It is essential that RCOs have a thorough knowledge of range procedures, duties, and weapons delivery minimums before assuming RCO duties. The RCO must use discretion in supervising the flight so as not to interfere with the flight leader's authority. Both the flight lead and the RCO must have access to the radio to control aircraft in the delivery pattern. Excessive radio transmissions may well interfere with the safe conduct of the range mission.

b. The RCO is responsible for maintaining the schedule on Oscura Range. Unless specifically noted otherwise (for weapons meets, operations readiness inspections), a flight is expected to be at the holding or entry point at the start of its range period and crossing the range boundary outbound at the end of its period. The RCO will advise the flight leads when five minutes remain in their period if another flight is scheduled immediately at the conclusion of that flight's range period. Do not allow flights to extend their period without the concurrence of the inbound or holding flight. Holding flights will not be cleared to depart the range holding or entry point until such time as the last aircraft of the preceding flight is off the target and has departed the delivery pattern. Aircraft performing a circling rejoin over the range are considered to still be in the delivery pattern; however, the RCO may assign specific altitude so as to deconflict flight entering/exiting the range.

c. The RCO will monitor all range activities during a tour of duty. The RCO will supervise scoring, record keeping, written reports, range inspections, and personnel access to all areas of the range. Weather, wind, and bird activity will be closely monitored and range operations will be restricted when deemed necessary. When bird concentrations are observed at Oscura Range that may affect safety of flight, the RCO will:

- (1) Inform all flight members on the range and all oncoming flights of the hazard.
- (2) Use best judgment to eliminate the hazard by restricting certain events or momentarily suspending all deliveries.
- (3) Notify the 49 FW Supervisor of Flying (SOF).

6-7. Opening the Range. The RCO must complete the RCO's opening checklist prior to opening Oscura Range for flight operations. To ensure timely range opening, the RCO will arrive at the range a minimum of 45 minutes prior to the first scheduled range period. The RCO will complete the following items before opening the range:

a. For facilities and impact areas inspection reference AFR 50-46. Conduct a safety inspection of range facilities and impact areas in accordance with above references and paragraph 6-8 of this annex. Particular emphasis will be placed on the low angle strafe impact area, transducer, and target alignment.

b. Review daily activities to include the following items as a minimum:

- (1) Status of any known discrepancies.
- (2) Status of acoustiscorer, M-2 aiming circle, plotting boards, and scoring computer (as applicable).
- (3) Work schedule of range personnel for that day. Ensure that all range personnel understand that no one will be permitted on the range without the RCO's knowledge and clearance.
- (4) Ensure that range personnel understand their required duties and that spotting and scoring personnel are in place at least 10 minutes prior to a scheduled flight period.
- (5) Review the scheduled flight operations.

c. Obtain a weather observation from the weather observer to include winds, altimeter setting, surface temperature, and ceiling and visibility measurements (if applicable).

d. Review and check currency of the RCO guide. Annotate discrepancies or improvements to the RCO guide on the range officer's report and bring to the attention of the 49 OSS/OSTA.

e. Inform Cherokee via the hotline that Oscura Range is open and request a ring-back on the hotline.

f. Inform 49 FW/CPO via the hotline that Oscura Range is open and request a ring-back on the hotline.

g. Contact 49 OSS/OSTA after 0700 and inquire into any changes to the printed schedule.

6-8. Inspections. The importance of the RCO's inspection should not be overlooked. The RCO should always be on the alert for discrepancies, documenting such findings on the range officer's report and taking immediate action as necessary to correct any deficiency which affects support of the range mission. If at any time the RCO believes the range is unsafe, the 49 OG/CC or his/her representative will be contacted and range closure should be considered. The following areas will be inspected prior to opening the range:

a. For conventional target, ensure that target areas are free of excessive contamination, all tires are correctly aligned for the respective target, and target condition is satisfactory for continued use.

b. For strafe target, check that the bull's-eye is hoisted to 11 feet AGL, the chute does not touch the acoustiscorer transducer, and the bull's-eye is directly in line with the transducer and final approach heading. Both strafe targets on the "HOT" range will be raised when they are in operational status. Check that the transducer is properly aligned and clipboard checked.

c. On strafe impact area, when the soil condition does not meet acceptable standards that will keep ricochet potential at a minimum, the RCO will close the affected strafe (targets). Acceptable standards are defined:

- (1) A loose soil condition to a depth of at least 12 inches. A crusted surface condition which breaks under the weight of the RCO is acceptable.
- (2) The area must be free of hazardous debris, fired projectiles, and fist-sized or larger rocks.
- (3) The area 75 feet in front of the target to 100 feet behind the strafe target, out to 50 feet either side of the centerline, and the areas around and on top of the berms will be hand policed daily.
- (4) No areas of standing or puddled water in strafe impact area. After a rain of sufficient intensity to pack the soil, the area will be considered unacceptable until it has softened.
- (5) The ground is not frozen.

- d. The RCO is not required to inspect the nuclear or high angle strafe targets during the daily inspections.
- e. The main and flank towers will be operational 10 minutes prior to the first flight. As a minimum the following items and equipment will be checked in the main tower:
- (1) General condition and cleanliness.
 - (2) Air conditioning/heating units.
 - (3) Foul wires condition and alignment.
 - (4) M-2 aiming circle condition and alignment.
 - (5) Anemometer (wind machine) operational.
 - (6) Set acoustiscorer target size (normally for 20 mm) and select target.
- f. The following lines of communication will be checked:
- (1) UHF primary, single frequency radio - 342.2.
 - (2) UHF Guard, single frequency radio - 243.0.
 - (3) UHF back-up, multichannel radio. As a minimum check back-up radio on frequency 342.2.
 - (4) The first tape used on the voice tape recorder will contain the range name, date, RCO's name, time, and current weather. Number all tapes used sequentially. All major changes to range conditions or personnel will be noted as they occur.
 - (5) Cherokee hotline.
 - (6) The 49 FW/CPD hotline.
 - (7) Commercial telephones.
 - (8) Range Intercom system.
 - (9) Aircraft warning siren. This may be accomplished with entry of the first flight of the day.

6-9. Range Operations:

- a. The RCO is responsible for clearing flights into the delivery pattern and off the range. The RCO will inform Cherokee of the flight's departure on the last pass or during the rejoin after ordnance expenditure. If the hotline is inoperative the RCO will have the flight contact Cherokee on departure.
- b. For clearance to expend ordnance, the RCO will issue clearance for every pass, hot or dry, after ensuring that the target area is clear, the attacking aircraft is aligned with the correct target, no conflicts exist, and no unsafe practice is observed.
- c. The RCO is expected to monitor all aircraft in the pattern; however, primary concern must be for the aircraft on final. The RCO must closely monitor all passes for dive angle, dive recovery, minimum altitude, fouls, and dangerous passes. If spacing between aircraft in the pattern becomes a problem for scoring, the RCO will direct the flight to open or close up the spacing as required or restrict deliveries until spacing is corrected. RCOs must use discretion in this area so as not to usurp flight lead control and authority.

6-10. Radio Procedures. Professional, timely radio calls are necessary for the safe and efficient control of flights on the range. Direct two-way radio communications must exist between Oscura Range and delivery aircraft in order to expend ordnance on the range.

a. There are two single frequency UHF radios located in the main tower. One of these radios is set to Oscura Range UHF primary frequency 342.2 while the other is set to UHF Guard frequency 243.0. The multichannel UHF radio is provided as a back-up and will normally be set to the primary frequency. A UHF secondary frequency is 267.8. The secondary frequency will be used at the discretion of the RCO. The RCO will inform the flight upon initial entry when only one radio (excluding the single frequency Guard radio) is operable.

b. The RCO will ensure that all RCO initiated transmissions (except for the "cleared" call) are acknowledged. If acknowledgment is not received within a reasonable period of time, the pilot involved will be queried. Acknowledgment of scores by aircrews is desired but not mandatory.

c. Examples of RCO radio transmissions are:

- (1) Clearing a pass hot - "Cleared, two".
- (2) Clearing a pass dry - "Cleared dry, three".

- (3) Strafe - "18 hits, one".
- (4) Bomb/Rocket - "Four, your bomb (RX) two three at ten".
- (5) Firing past foul line - "Foul, one, 1700 feet cease fire".
- (6) Low pullout - "Foul, two. Minimum altitude, recovered at 700 feet (AGL)".
- (7) Second foul, same aircraft - "Foul, three. Lazy recovery. Depart the pattern".

d. If the primary radio fails, the RCO will attempt to contact the flight on primary UHF frequency using the back-up multichannel radio. If necessary, use Guard frequency to advise the flight to hold high and dry to provide clearance for ordnance jettison. Normal range operations will not be conducted on Guard. The range may be opened with one operable UHF radio (excluding the single frequency Guard radio). Each flight will be advised of the limited capability.

e. The RCO will notify flight members when an aircraft flies past the tower, rocking its wings as a NORDO signal. The RCO will attempt to contact the NORDO aircraft, on the UHF secondary frequency. If contact is reestablished, call the other flight members over to that frequency and after all flight members are established on the new frequency, the mission may be continued. If an aircraft flies past the tower, rocking its wings, and departs the range signaling NORDO with an emergency, the RCO will notify the other flight members. The RCO will notify Cherokee and 49 FW/CPO of the returning emergency NORDO aircraft.

6-11. Scoring. The RCO is responsible for the accuracy of all scoring on Oscura Range. The TAC Form 156, TAC Weapons DUTY Scoring Record, must be accurately filled out and legible to ensure proper credit is given for individual aircrew training. The RCO will sign each TAC Form 156 signifying the accuracy of all information and scores.

a. M-2 aiming circles are used as the scoring system for Oscura Range. Plotting boards, or a computer when requested, will be used to convert scope observations to scores.

b. Due to plotting accuracies, scores of five meters or less will be recorded as a bull's-eye.

c. The high angle strafe target is ground scored as either a hit or miss. A hit is the center of the burst within 23 meters (75 feet) of the target.

6-12. Night Operations. During night range operations, the RCO must have visual contact with the flight and ascertain the flight is within the range boundary and established in the appropriate pattern prior to issuing clearance to expend flares or ordnance. The RCO will attempt to determine the total number of flares dispensed and that ignited on each flare pass. The RCO will inform all flight members of the possibility of dud flares and their approximate location. The RCO or any flight member may direct a "high and dry" pass any time they consider duds or burned out flares to be a hazard.

6-13. Restricted or Curtailed Operations. The following is a summary of conditions and situations which require restriction or curtailment of range operations. If any of the following situations occur, the RCO will inform the flight of the situation and actions the RCO intends to take. The RCO will contact 49 FW/CPO and provide the restricted status of the range. The 49 FW/CPO will forward this information to all affected unit operations. When possible the RCO may include an estimation of when unrestricted range operations may resume. This list is not intended to be all inclusive. The RCO may restrict or curtail operations when in their opinion conditions are of such a nature to warrant this action. The RCO will contact the 49 OSS/OSTA with the intended course of action.

- a. Aircraft crash or bailout.
- b. Electrical power or complete radio failure.
- c. Weather conditions below minimums.
- d. Wind out of limits.

e. Unauthorized personnel or vehicles are observed in a hazardous area. A hazardous area is defined as any area where ordnance impacts could be normally expected to occur; for example, strafe fan defined in AFR 50-46, long and short of a specific target, etc.

f. Unauthorized aircraft enters the range airspace and is a factor detrimental to the safe conduct of the mission in progress.

g. If a fire is reported on or near Oscura or Red Rio ranges, the RCO will immediately notify the Stallion Fire Department giving the fire's location and size, if able to determine. The RCO may request a member of a departing flight to overfly the fire. The following actions will be taken:

- (1) Oscura Range procedures are:

(a) Close the range if existing firebreaks will not contain the fire and personnel have to be dispatched.

(b) Dispatch all available range personnel to fight the fire if required.

(c) Request assistance from Stallion if any question exists in the ability of range personnel to extinguish or contain the fire.

(d) Notify Cherokee and 49 FW/CPO.

(e) RCO will remain in tower until fire is extinguished or brought under control and range personnel have returned.

(f) Log the fire and its effects in the range officer's report.

(2) Red Rio Range procedures are:

(a) Notify Cherokee and 49 FW/CPO.

(b) If aircraft are to proceed from Oscura Range to Red Rio Range to overfly the fire, coordinate request with Cherokee.

(c) Close Oscura Range to "HOT" deliveries when range personnel have been dispatched to Red Rio Range to fight the fire. Dispatch range personnel only upon request of Stallion Fire Department for assistance.

(d) Log the fire in the range officer's report and indicate if assistance was required by the Stallion Fire Department and if Oscura Range was closed to "HOT" deliveries.

h. R & D missions have priority over any training mission on Oscura Range. The daily range schedule reflects these missions, but on occasions these missions slip or are added on with little or no prior notification. At any time and for any reason Cherokee can regain control of the range airspace through a phone call to the RCO. Compliance with Cherokee's instructions will be immediate and without hesitation. In conjunction with R & D missions, Army evacuation helicopters may need to transit range airspace in the performance of their duties. These helicopters will be given priority over any flight operation, either scheduled or in progress. If aircraft are on the range either in the delivery or holding patterns, they will be held to avoid conflicting with the evacuation helicopters. When these helicopters have completed their mission and departed Oscura Range airspace, normal operations may resume.

6-14. Emergency Procedures. The RCO must be prepared to provide emergency instructions, divert information, pullout/recovery directions, and ejection recommendations in cases of aircraft fire or loss of control. Since several different types of aircraft use Oscura Range, the RCO will only assist in handling airborne emergencies when requested by the flight lead, instruction pilot, or aircraft commander.

a. If an aircraft accident occurs on the range, the RCO will be the on-scene commander until relieved by competent authority. Procedures to be followed are outlined in paragraph 2-14d.

b. For external stores jettison procedures, see paragraph 2-12. The RCO will advise the jettisoning aircraft of the condition of stores separation; such as, clean, store hung, appeared to hit the aircraft, etc. The RCO will ensure that the tower spotters position their M-2 aiming circles so the stores' impact point may be plotted and the stores retrieved.

c. In the event of injury to any of the range personnel, the RCO must be prepared to render first aid assistance to the injured personnel. In the event the seriousness of the injury requires emergency medical attention or evacuation, the RCO will request assistance first through 49 FW/CPO, then Cherokee. Inform the agency contacted of the nature of the emergency and assistance required; for example, evacuation of injured, doctor, etc.

6-15. Closing the Range. Under normal conditions, Oscura Range may be closed after the last scheduled range mission is completed. The RCO will confirm through the 49 OSS/OSOS that no additional sorties are scheduled prior to authorizing the range crew to initiate closing procedures. The RCO will complete the RCO's closing checklist prior to departing the range. The following range closing items will be accomplished as a minimum:

a. Notify Cherokee and 49 FW/CPO that the range is closed for operations.

b. Inform flank tower of last sortie.

c. Release weather personnel. This may be done at the completion of last required weather observation.

d. Ensure tower is clean and neat and trash is removed.

e. Close main tower. Include lights, air conditioning/heat units, all radios, anemometer, M-2 aiming circle, acoustiscorer, and door locked.

f. Note target and impact area condition.

- g. Review all TAC Forms 156 and certify correct with signature.
- h. Complete range officer's report.

6-16. RCO Reports. All reports due to 49 OSS/OSOS will be turned in the first duty day after the RCO's tour of duty.

a. Each RCO is responsible for completing a range officer's report for their tour of duty. The data obtained from the range officer's report is used to complete quarterly and annual reports to higher headquarters. It is essential that all data be as accurate as possible. The range officer's report should be used to document RCO-discovered discrepancies and suggestions for range improvements. The range officer's report will be completed in one original with one copy. The original and copy will be returned to the 49 OSS/OSOS with the TAC Forms 156 or computer generated products.

b. The TAC Forms 156 (or computer generated products) are used to document aircrew weapons delivery scores and must be accurate. The RCO's initials certifies these records are being accurate and without error. The scoring record will be completed in one original with one copy. Both the original and the copy will be returned to 49 OSS/OSOS for distribution.

LIVE WEAPONS RELEASE REPORT

DATE: _____ SQUADRON: _____

CALLSIGN: _____

WEAPON (I.E. 6XMK-82HD, TER, ETC): _____

FUZE: _____

HIGH ORDER DETONATION OBSERVED: YES _____ NO _____

DIRECTION OF RELEASE (MAG HDG): _____

APPROXIMATE IMPACT POINT IN RELATION TO TARGET:

APPROXIMATE COORDINATES FOR IMPACTS OUTSIDE "SAFETY" AREA:

Training
WEAPONS RANGES

This supplement to AFR 50-46 establishes procedures and policies for all users of air-to-air ranges under 49th Fighter Wing (FW) control and managed by White Sands Missile Range (WSMR) control.

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CHAPTER 1
RESPONSIBILITIES

1-1. General. Commanders of the 49 FW squadrons and units are responsible for ensuring that all personnel within their jurisdiction comply with the provisions of this supplement. Units and agencies not assigned to or part of the 49 FW are required to comply with the provisions of this supplement when operating aircraft or performing duties on Holloman ranges.

1-2. User's Classification:

- a. Regular users - all 49 FW units and others using Holloman ranges on a daily basis.
- b. Casual users - units who occasionally use Holloman ranges.

1-3. Scheduling. The 49th Operation Support Squadron (OSS), Combat Operations/Scheduling (OSOS)(AUTOVON 867-3536) schedules the air-to-air ranges. Regular users will specify the ranges requested and submit requests one week prior to the week of intended use. Casual users must submit range requests not later than two weeks prior to the week of intended use. All units will specify the areas requested, desired time blocks, flight call signs, number of aircraft in each flight, and type of ordnance to be expended. The range schedule will be published weekly. Once the schedules have been distributed, all deviations must be coordinated through the 49 FW Command Post (49 FW/CPD), AUTOVON 867-7575.

1-4. Weather Support. 49 OSS/OSW will provide weather support for range operations in accordance with WSMR operations directives.

CHAPTER 2

AIR-TO-AIR RANGES

2-1. General. The air-to-air ranges are used for intercepts, air combat training (ACBT), dissimilar air combat training (DACBT), and DART/AGTS. Yonder is the only area approved for aerial gunnery. All these ranges are subdivided by an alpha-numeric grid (Figure 2-1). Mission Control (Cherokee) uses this grid system to provide necessary separation between ACC training flights and other WSMR missions. If not familiar with the grid system, ask Cherokee to pass the appropriate grid line latitude and longitude.

2-2. WSMR Entry, Exit, and Holding:

a. Do not enter WSMR airspace without clearance from Cherokee. Establish radio contact with Cherokee prior to entering WSMR airspace. When issuing range clearance, Cherokee will also issue airspace restrictions. Cherokee is not an air traffic control (ATC) agency; therefore, maintain last ATC clearance until within the airspace boundaries. Also, clearance for one portion of the airspace does not constitute clearance into any other portion of the airspace.

b. If delays are encountered entering WSMR, hold in accordance with HAFBR 55-3. If unfamiliar with this regulation, obtain holding instructions from Holloman radar approach control (RAPCON).

c. On exit from WSMR, maintain VMC/visual flight rules (VFR) until RAPCON issues an instrument flight rules (IFR) clearance. If an IFR clearance cannot be obtained, then fly the stereo route, maintaining VFR until a clearance can be obtained. If unable to exit WSMR VFR, notify Cherokee and obtain an IFR clearance from Albuquerque Center or Holloman RAPCON prior to exiting WSMR airspace.

d. WSMR entry and exit responsibilities are:

(1) Pilots will:

- (a) Enter only when cleared by Cherokee.
- (b) Confirm exit time, altitudes, and restrictions.
- (c) Coordinate a discreet working frequency with Cherokee.
- (d) Maintain last ATC squawk until in the area, then squawk appropriate WSMR code.
- (e) Use assigned working frequency and monitor Guard.
- (f) Notify Cherokee when exiting the ranges.
- (g) Exit assigned area at or prior to designated time.

(2) Cherokee will:

- (a) Upon initial radio contact, clear assigned aircraft onto the range and confirm exit times.
- (b) Use other airborne aircraft or Guard as a final measure to relay instructions to pilots at altitudes too low to receive initial transmissions.

2-3. Yonder:

a. This area consists of a shoot box and impact area located within the boundaries of R5107B (HMN 277/28). The shoot box is 5 nautical miles (nm) wide and 11 nm long. All firing must occur within the shoot box to ensure that all projectiles fall within the boundaries of the impact area. The only ordnance authorized is 20 mm training projectiles (TP).

b. Locations are (see Figure 2-2):

(1) YONDER IMPACT AREA

32o 50.0'N	106o 32'N
32o 50.0'N	106o 45'N
33o 10.6'N	106o 45'N
33o 10.6'N	106o 32'N (To point of beginning)

(2) YONDER SHOOT BOX

33o 06' 33"N	106o 35' 54"W
32o 54' 33"N	106o 35' 52"W
32o 54' 33"N	106o 40' 37"W
33o 06' 33"N	106o 40' 40"W

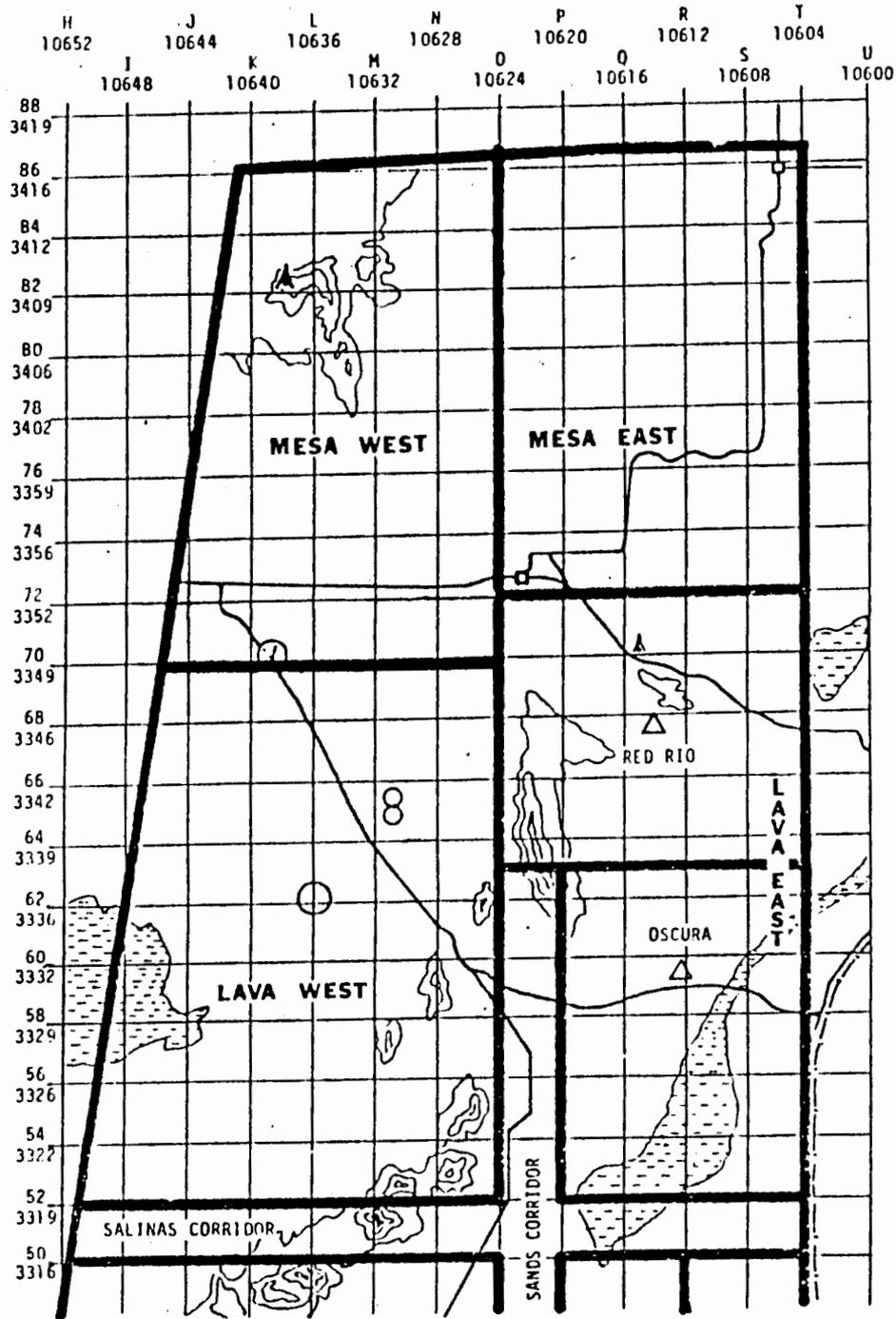


FIGURE 2-1. WSMR - Lava/Mesa Airspace.

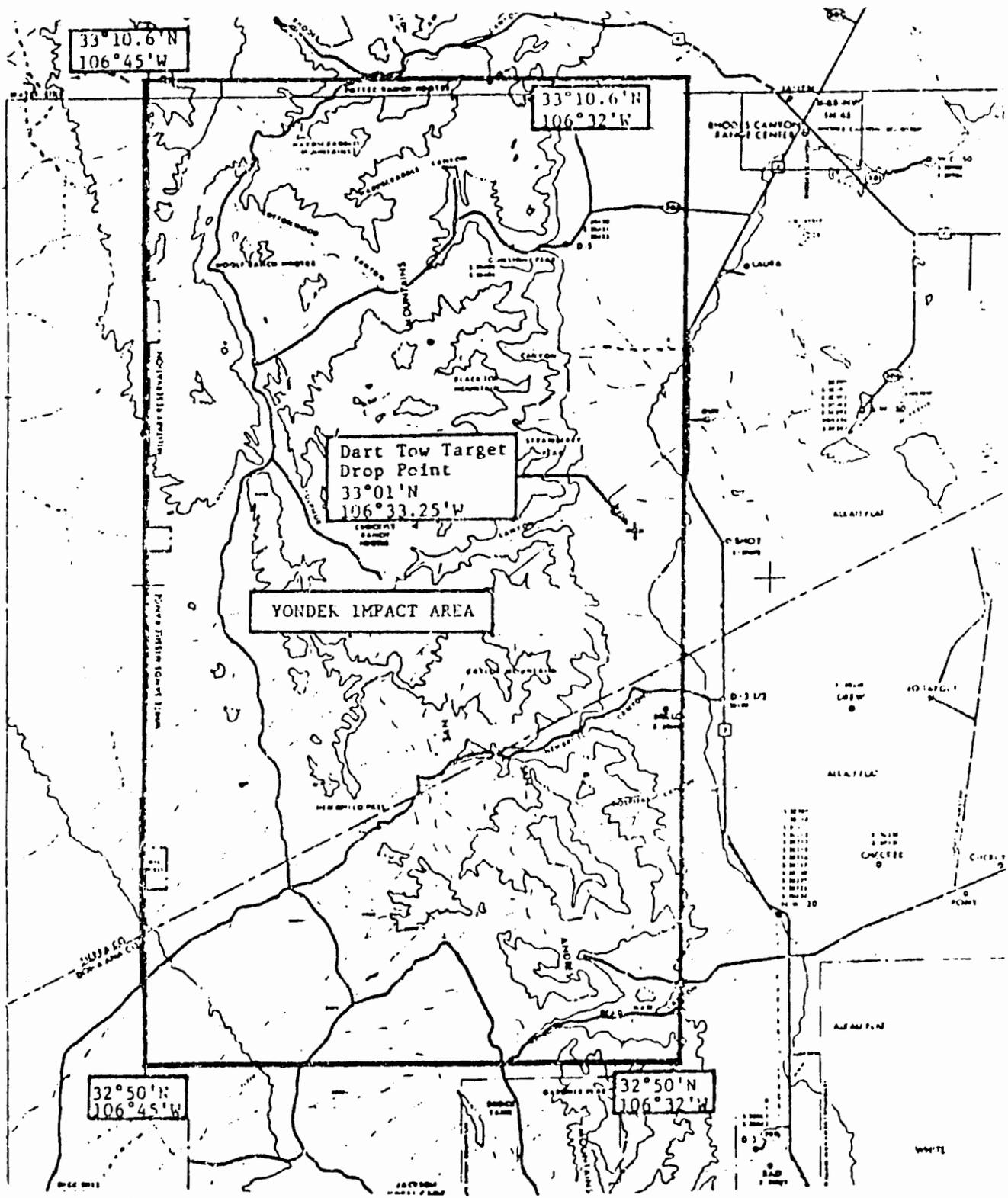


FIGURE 2-2. Yonder Impact Area.

- c. The base of Yonder within R5107B is 500 feet above ground level (AGL) and within R5111A is 15,000 feet mean sea level (MSL). The maximum altitude is 50,000 feet MSL.
- d. Primary working frequency is UHF 342.4.
- e. Range control is provided by the aerial gunnery range control officer (RCO) in accordance with ACCR 55-series regulations.
- f. Mountains underlie the entire range up to 8239 feet MSL.
- g. Restrictions are:
- (1) Fly aerial gunnery patterns as outlined in appropriate ACCR 55-series regulations.
 - (2) The flight leader will make a clearing pass to ensure the impact area is free of any surface activity. All firing must occur within the shoot box boundaries and in such a manner to ensure all projectiles remain within the impact area.
 - (3) For 20 mm employment the following apply:
 - (a) Procedures in Yonder will be in accordance with AFR 55-79/ACC Supplement 1, WSMR Operations Directive 48902A, HAFBR 55-3, and governing flight manual.
 - (b) Limitations for hot gun employment against the DART will be in accordance with WSMR Operations Directive 48902A. Minimum firing altitude is 12,500 feet MSL. Maximum firing altitude will be 20,000 feet MSL. "Cleared to fire" will not be called unless the shooter aircraft heading is between 0400 and 0100 true.
 - (c) All flight leads will specifically brief all fighters and tow pilots on visual and avionics references in Yonder prior to each mission and emphasize continuous cross-check of all available references during 20 mm employment. Flight leaders will ensure that all DART/AGTS and tow targets impact or are released within the boundaries of the Yonder area, when such action is required or deemed necessary. In the event of projectile or DART impact outside the impact area boundaries, the flight leader will terminate the mission immediately and notify Cherokee. Upon landing, the flight lead will give all details to 49 OSS/OSTA. The 49 OSS/OSTA will coordinate appropriate actions with the WSMR Flight Safety.
- h. Entry, exit, and holding will be as directed by Cherokee and Holloman RAPCON in accordance with HAFBR 55-3.
- i. Emergency airfields are Holloman and Northrup Strip. Holloman is 097 degrees for 27 nm from the center of the shoot box and Northrup Strip is 097 degrees for 10 nm. Contact Cherokee for assistance during emergency recovery.

CHAPTER 3
WEAPONS PROCEDURES

3-1. General. The procedures outlined in this chapter apply to all users of WSMR who participate in aerial gunnery.

3-2. Weather. Minimums contained in this paragraph apply to all aircraft engaged in aerial gunnery in the WSMR airspace:

- a. Position must be accurately maintained by positive ground references to ensure that all ordnance impacts on the range.
- b. Ceiling is 1000 feet above the highest attack (perch) position.
- c. Visibility is five statute miles.
- d. All mission aircraft will operate in visual meteorological conditions (VMC). If VMC cannot be maintained, abort the mission.

3-3. Air-to-Air Range Procedures:

- a. No more than four shooters and one DART tow aircraft will be in the pattern at one time.
- b. Aircraft will be cleared on the range in accordance with HAFBR 55-3.
- c. Rendezvous may be enroute to the range within the range confines as briefed.
- d. All firing patterns described in ACCR 55-series manuals are authorized. It is the responsibility of the tow pilot and RCO to ensure pattern size and orientation do not exceed the confines of the shoot box (Figure 3-1).
- e. Two-way radio contact between the tow and shooter aircraft is mandatory.
- f. DART/AGTS towing procedures are:
 - (1) During DART/AGTS deployment, a warning radio call is to precede DART/AGTS launch. A chase aircraft will monitor all AGTS deployments.
 - (2) The DART/AGTS may be deployed once the tow aircraft is within the confines of Yonder Impact area and on a heading which will ensure that the DART/AGTS impacts within the impact area should a failure occur.
- g. Emergency and unusual situation procedures are: If radio failure occurs CEASE FIRE AND TERMINATE ALL ATTACKS.
 - (1) Shooter aircraft experiencing radio failure will join on another member of the flight or the tow aircraft. If contact can be reestablished, continue the mission as long as the shooters and tow are on the established, the pilot involved will hold high in a trailing position relative to the shooter aircraft until rejoined for recovery.
 - (2) Tow aircraft experiencing radio failure will rock its wings and continue the turn until assured that all attacks have terminated. If contact can be established with all mission aircraft on the backup frequency, then continue the mission. If contact cannot be established, the flight leader will join on the tow aircraft and provide any assistance required.
 - (3) If aircraft emergency and radio failure, cease fire and terminate attacks.
 - (a) Shooter aircraft will attempt to join with another member of the flight or the DART tow aircraft and use visual signals to indicate the nature of the emergency and intentions. If circumstances preclude joining with another aircraft, break out opposite of established traffic, rock wings, squawk emergency, and set course for the nearest suitable recovery field using reduced power, if practical.
 - (b) Tow aircraft will rock wings, continue turning, and release the DART/visual augmenter, reel in the target set and set course for the nearest suitable recovery field squawking emergency.
 - (c) The flight lead/designated wingman will chase the emergency aircraft to base of intended landing.
 - (d) For runaway gun, roll out and lower the nose. Safe the weapon system and, time permitting, make a radio call indicating that a runaway gun condition exists.

(e) If the AGTS fails to deploy in the area, recover to the active runway.

(f) If the AGTS fails to reel in for recovery it will be reeled out in the drop zone. If this is unsuccessful the tow will circle north at 1000 feet AGL and attempt to cut or drag off the AGTS.

(g) If the AGTS is shot off and the tow cannot eliminate trailing rope, the tow will land on the active runway and have the rope removed in de-arm, if chase can confirm that 20 feet or less remain. If more than 20 feet remain, recover on runway 07 with an angling final from the north to ensure the cable clears the 61QS11/MAIA barriers. The AGTS tow will stop straight ahead and have the cable removed before taxiing.

3-4. Self-Protection Flares:

a. Self-Protection flare employment is authorized in WSMR airspace IAW WSMR OD 48908A and is limited to ALE40/45 dispensers loaded with MJJ-7, -10, or -206 flares. Additional restrictions are:

(1) Employment must ensure that flares remain within lateral limits of Yonder and Lava airspace (not authorized in Mesa).

(2) Night employment is not authorized.

(3) Minimum altitude is 1000 feet AGL.

(4) Maximum altitude is 50,000 feet MSL.

(5) Employment must ensure that flares remain within lateral limits of Yonder and Lava airspace.

(6) No flares shall be expended within 10,000 feet of the Impact area boundaries.

b. Smokey Devil employment is not authorized in WSMR or any MOA/ATCAA.

3-5. Chaff Employment. Chaff employment is authorized in accordance with the current chaff permit issued to 49 OSS/OSTW.

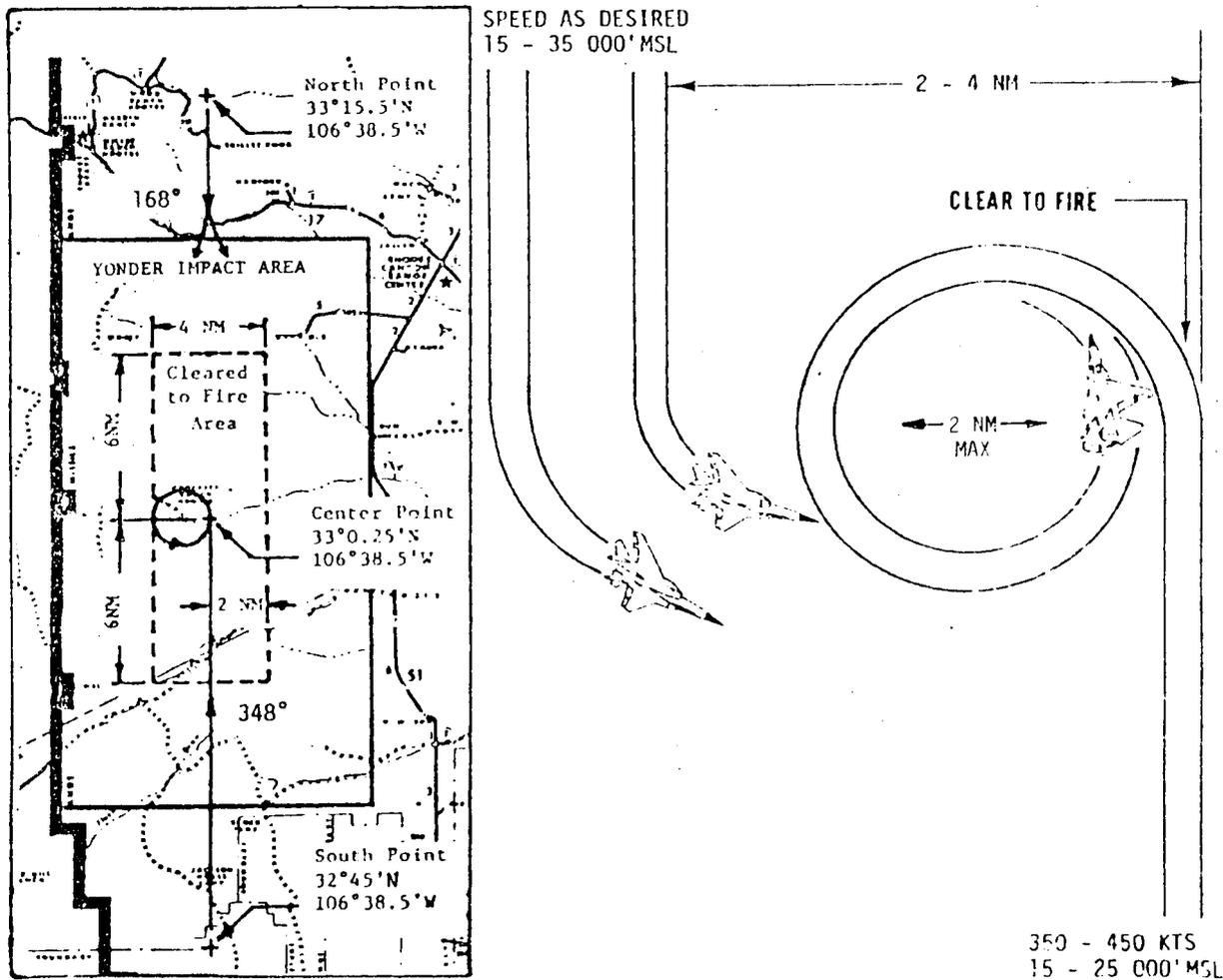


FIGURE 3-1. High Angle DART Pattern.

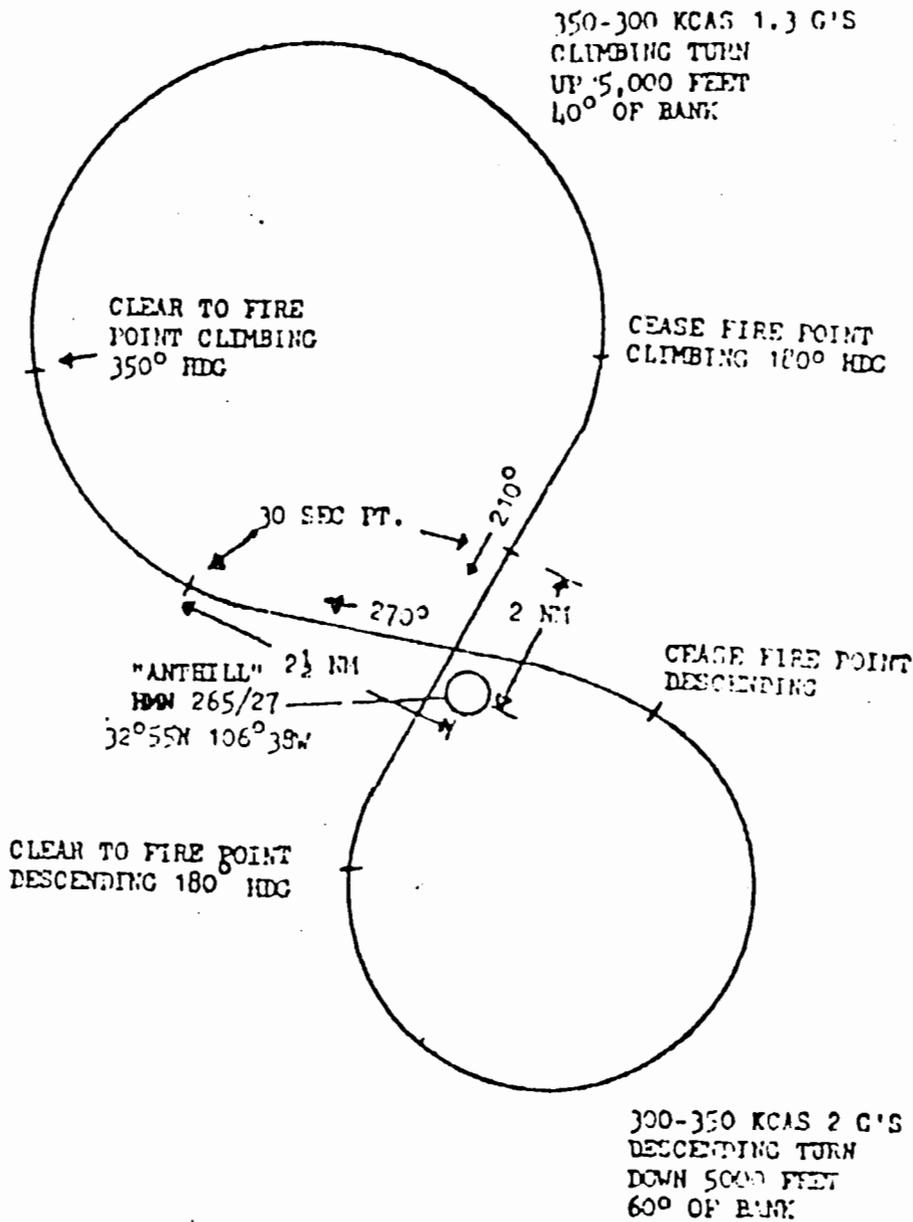


FIGURE 3-2. Butterfly DART/AGTS Pattern.

DISTRIBUTION:

<u>ADDRESSEE</u>	<u>COPIES</u>	<u>ADDRESSEE</u>	<u>COPIES</u>
HQ USAF/XOOTT	1	4 OSS/OST	5
HQ USAF/LEEV	1	4 CSG/DARE COUNTY RANGE	2
HQ USAF/LEFV	1	1950 CURTISS AVE	
1630 AIR FORCE PENTAGON		SEYMOUR JOHNSON AFB NC 27531-2520	
WASHINGTON, DC 20330-1630			
		23 TASS/DO	5
HQ ACC/SCP	1	DAVIS-MONTHAN AFB AZ 85707-5000	
HQ ACC/DOO	2		
HQ ACC/LGW	1	27 OSS/DO	6
HQ ACC/IGC	2	27 CSG/MELROSE RANGE	2
HQ ACC/DOOT	1	110 E SEXTANT AVE STE 1040	
HQ ACC/DOVF	1	CANNON AFB NM 88103-5322	
HQ ACC/DOXR	1		
HQ ACC/DOOW	1	33 FW/DO	3
HQ ACC/INAT	1	1107 NOMAD WAY STE 9	
LANGLEY AFB, VA 23665-5001		EGLIN AFB FL 32542-6028	
9 AF/DOO	2	56 OSS/DO	3
9 AF/DOS	2	1 CSS/AVON PARK RANGE	2
9 AF/DOV	1	7709 HANGAR ROW DR	
9 AF/IGI	2	MACDILL AFB FL 33608-5500	
9 AF/DOOW	1		
524 SHAW DR STE 200		57 OSS/DO	6
SHAW AFB, SC 29152-5002		4360 TYNDALL AVE	
		NELLIS AFB NV 89191-6062	
10 AF(R)/DOO	2		
10 AF(R)/DOOT	1	302 FG/DO	1
10 AF(R)/DOOW	1	944 FG/DO	1
BERGSTROM AFB, TX 78743-5000		LUKE AFB AZ 85309-5000	
12 AF/DOO	2	58 OSS/DO	5
12 AF/DOOT	1	7254 N 142 AVE STE 2	
12 AF/DOOW	2	LUKE AFB AZ 85309-1215	
12 AF/IGI	2		
5325 E KATCHINA ST		325 OSS	3
DAVIS-MONTHAN AFB AZ 85708		1141 FLORIDA AVE STE 1	
		TYNDALL AFB FL 32403-5213	
ANG/CF	2		
2500 ARMY PENTAGON		347 OSS	3
WASHINGTON, DC 20310-2500		8227 KNIGHTS WAY STE 115	
		MOODY AFB GA 31699-1899	
ANGSC/DOS	2		
MAIL STOP 18		355 OSS	5
ANDREWS AFB, DC 20331		5350 E MADERA ST	
		DAVIS-MONTHAN AFB AZ 85707-4932	
AFRES/DOTT	2		
AFRES/DOO	2	363 OSS	5
AFRES/DOOT	2	517 LANCE AVE STE 6	
AFRES/DOOW	1	SHAW AFB SC 29152-5041	
155 2ND ST			
ROBINS AFB, GA 31098-1635		150 FG/DO	5
		PO BOX 5510	
		KIRTLAND AFB NM 87185	
TAWC/DO	2		
4485 TS/DO	1	152 RG/DO (ANG)	2
3246 TW/DO	2	1776 NATIONAL GUARD WAY	
3247 TS/DO	1	RENO NV 89502-4494	
EGLIN AFB, FL 32542-5000			
HQ AFESC/RDUA	2	162 FG/DO (ANG)	5
TYNDALL AFB, FL 32403-6001		162 FG/FWS	1
		PO BOX 11037	
		TUCSON AZ 85734-1037	
USAF FWC/CC	2		
USAF FWC/DO	2	178 FG/DO (ANG)	2
554 RS/RSA	2	801 FONTAINE LANE	
3770 DUFFER DR		SPRINGFIELD OH 45502-8789	
NELLIS AFB, NV 89191-7001			
1 OSS/OST	2	184 FG/DO (ANG)	2
160 E FLIGHT LINE RD STE 11		52960 JAYHAWK DRIVE	
LANGLEY AFB, VA 23665-2295		MCCONNELL AFB KS 67221-9010	

834 OSS/DO 150 BENNETT AVE HURLBURT FIELD, FL 32544-5727	2	185 FG/DOW SIOUX CITY ANG BASE PO BOX 2780 SERGEANT BLUFF IA 51054-1002	2
388 OG/DO 388 OSS/IN HILL AFB, UT 84056-5016	5 1	188 FG/DO (ANG) 4850 LEIGH AVE MAP FORT SMITH AR 72903-6096	2
405 TW/DOW 555 FS/DOW 7125 N 142 AVE LUKE AFB, AZ 85309-7255	1 1	507 FG/DO (AFRES) 7450 RESERVE RD STE 207 TINKER AFB OK 73145-8727	2
57 OSS/DO 4360 TYNDALL AVE 9191-5000 NELLIS AFB AZ 89191-6062	3	MCAS YUMA/FLO MAWTS-1 MCC RTG-10	2 2 2
552 ACW/DO 7481 SENTRY BLDG STE 127 TINKER AFB OK 73145-9012	2	FAA ARTCC 6900 LOS ANGELES DRIVE NE ALBUQUERQUE NM 87114	1
58 OSS, LUKE AFB RANGE 7254 N 142 AVE STE 2 LUKE AFB AZ 85309-1215	2	DEPUTY FOR AF, WSMR (AFSC)/RUC WHITE SANDS MISSILE RANGE NM 88220-5000	2
542 CTW/DOV 2000 WYOMING BLDV SE KIRTLAND AFB NM 87117-5606	2	VMA 533 MAG 14 MCAS CHERRY POINT NC 28533	1
46TH TESTG/DO 871 DEZONIA RD HOLLOMAN AFB NM 88330-7715	1	ATKRON 55 NAVAL AIR STATION OCEANIA VA 23460	1
112 ARG/DO (ANG) BLDG 301 MUSTANG DR, PITTSBURGH IAP CORAPOLIS PA 15108-4819	1	VFA-86 NAC CECIL FIELD FL 32215	1
122 FW/DO (ANG) 3005 FERGUSON RD FORT WAYNE IN 46809-0122	7	VMFA AW 242 MAG 11 3 MAWPA 15231 ATTN: OPERATIONS MCAS EL TORO CA 89191	2
127 FS/DO (ANG) 52960 JAYHAWK DR STE 95 MCCONNELL AFB KS 67221-9010	2	49 OSS/OST 744 DELAWARE AVE STE 210 HOLLOMAN AFB NM 88330-8014	10
DET 1 HQ 184 FG SMOKEY HILL ANS RANGE 8429 W FARRELLY RD SALINA KS 67401-9407	1		
128 FW WI (ANG) TRUAX 3110 MITCHELL ST MADISON WI 53704-2591	5		
131 FW/DO (ANG) 10800 NATURAL BRIDGE RD BRIDGETON, MO 63044-2371	2		
137 AW/DO (ANG) 5201 FLIGHT LINE DRIVE OKLAHOMA CITY OK 73179-1040	5		
140 FW/DCS (ANG) STOP 21 18860 E BRECKENBRIDGE AVE AURORA, CO 80011-9525	5		
149 FG/DCO (ANG) 110 HENSLEY STREET KELLEY AFB TX 78241-5544	2		