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*Specialty Management*

**COMPLIANCE AND STANDARDIZATION  
REQUIREMENT LIST (C&SRL) RANGE**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This policy directive implements AFD 90-2, Inspector General -- The Inspection System, and is applicable to all Air National Guard (ANG) units. The items listed do not constitute the order or limit the scope of the inspection/assessment. As a minimum, units will use this policy directive in conjunction with the annual unit self-assessment. The objective is to identify deficiencies that preclude attainment of required capabilities. Units will supplement this publication with items developed from appropriate technical data, Air Force Occupational Safety and Health (AFOSH) Standards (STD), local operating instructions (OI), etc., to assess internal compliance. This policy directive may be used in whole or in part by Higher Headquarters/Inspector General (HHQ/IG) during evaluations and exercises.

**1. Critical Compliance Objectives (CCO).** Items defined as key result areas for successful mission accomplishment including, but not limited to, items where non-compliance could result in serious injury, loss of life, excessive cost, or litigation. CCOs are noted as bold text in all caps.

**2. Core Compliance Items (CCI).** Areas that require special vigilance, important to the overall performance of the unit, and essential to operations (these items will be sampled); but these areas are not deemed "Critical." Non-compliance would result in some negative impact on mission performance or could result in injury, unnecessary cost, or possible litigation. CCIs are noted as text in all caps.

**3. General Compliance Items (GCI).** Areas deemed fundamental to successful overall performance of the unit (these items may be certified by the commander and will be sampled); but non-compliance would result in minimal impact on mission accomplishment or would be unlikely to result in injury, increased cost, or possible litigation. General Compliance Items are noted regular text (No bold, no all caps).

Item No.	Items	References
	<b>GENERAL CONCEPT</b>	
CCO-1.	<b>FOR AUTHORIZED WEAPONS EVENTS ON THE RANGE, IS THE WEAPONS SAFETY FOOT PRINT PROTECTED BY PURCHASE, LEASE, OR OTHER RESTRICTION TO ENSURE THE SAFETY OF PERSONNEL AND STRUCTURES?</b>	AFI 13-212, Para 1.4
CCO-2.	<b>DO RCOs HAVE POSITIVE VISUAL ID OF THE AIRCRAFT AND DOES THE RCO ENSURE THE SAFE RELEASE OF ORDNANCE ON THAT PASS BEFORE THEY CLEAR THE PILOT "HOT"? IF THEY CANNOT POSITIVELY DETERMINE THAT AN AIRCRAFT CAN CONDUCT A SAFE RELEASE (E.G., NIGHT OPERATIONS, HIGH ALTITUDE RELEASES), DOES THE RCO DELEGATE ORDNANCE RELEASE CLEARANCE TO A QUALIFIED FLIGHT LEAD, INDIVIDUAL PILOT, FORWARD AIR CONTROLLER, OR OTHER BRIEFED PERSON, BY DECLARING "AUTHORIZED CONTROL"?</b>	AFI 13-212, Para 4.8, AFI 13-212_ANGSUP1, Para 4.1.4.1
2.1.	ARE AIR-TO-GROUND/AIR RANGES CONFIGURED AND OPERATED TO PROVIDE REALISTIC TRAINING OPPORTUNITY FOR AIRCREWS?	AFI 13-212, Paras 1.4.1, 1.4.4,
2.2.	DOES THE RANGE PROVIDE TACTICAL TARGETS THAT PROVIDE REALISTIC TRAINING TO AIRCREWS? THE RANGE SHOULD INCLUDE A VARIETY OF TARGETS, SUCH AS MILITARY OPERATIONS IN URBAN TERRAIN TARGETS, IR TARGETS, LIGHTED TARGETS, TACTICAL TARGET ARRAYS, AND LASER TARGETS.	AFI 13-212, Para 3.2.4.1.1.9 AFI 13-212_ANGSUP1, Paras 2.7.7, 4.1.4.1.21;
	<b>RESPONSIBILITIES</b>	
CCO-3.	<b>HAS THE WING/ROA DEVELOPED OPERATING PROCEDURES THAT ENSURE OPERATIONS ON THE RANGE ARE CONDUCTED IN A SAFE MANNER?</b>	AFI 13-212, Para 2.5.14, 2.5.20, 2.5.25, 2.5.27, 4.6, 4.7, 4.12, 4.13.2, ANG SUP1 Para 4.3.11, 4.3.12
3.1.	Is scheduling centralized and are scheduling procedures published in the local addendum to AFI 13-212_ANG SUP 1?	AFI 13-212, Para 2.5.10, 2.5.14.1

Item No.	Items	References
3.2.	HAS A LOCAL SUPPLEMENT TO AFI 13-212_ANG SUP 1 BEEN PREPARED TO CLARIFY AND COORDINATE LOCAL OPERATIONS PROCEDURES?	AFI 13-212 Para 2.5.14, 2.5.14.1 AFI 13-212_ANGSUP1, Paras 2.7.5.1, 4.3.11, 4.3.12
3.3.	ARE THE RANGE FLIGHT OPERATIONS, FLYING AND GROUND SAFETY PROCEDURES LOCATED IN THE MAIN TOWER FACILITIES, SUCH AS OPENING/CLOSING CHECKLIST, RCO HANDBOOK, QUICK REACTION CHECKLIST, RANGE OIS?	AFI 13-212_ANGSUP1, Para 2.7.5.1
3.4.	ARE ANNUAL, QUARTERLY, MONTHLY, AND WEEKLY RANGE MAINTENANCE PERIODS SCHEDULED AND ACCOMPLISHED?	AFI 13-212, Para 1.6 Range Management Software Tool (RMAST)
3.5.	HAS THE ROA APPOINTED A RANGE OPERATING OFFICER (ROO) TO SUPERVISE RANGE OPERATIONS AND MAINTENANCE?	AFI 13-212, Para 2.5.28;
3.6.	ARE RANGE CONTROL OFFICERS APPROPRIATELY QUALIFIED?	AFI 13-212 Para 2.5.29, A2.3; AFI 13-212_ANGSUP1, Paras 1.3.1, 2.7.10, 2.7.10.1, 4.1
3.7.	IS RADIO CONTACT MAINTAINED BETWEEN THE AIRCRAFT AND THE RCO AT ALL TIMES WHILE THE AIRCRAFT ARE CONDUCTING SORTIES ON THE RANGE	AFI 13-212 Para 2.5.29.1
3.8.	ARE RANGE TRAINING OFFICERS APPROPRIATELY QUALIFIED?	AFI 13-212 Para 2.5.30, A2.4; AFI 13-212_ANGSUP1, Para 2.7.12
<b>CCO-4.</b>	<b>ARE LAUNCH PERSONNEL TRAINED IN THE SAFE HANDLING AND OPERATION OF THE SIMULATORS?</b>	<b>AFI 13-212, A2.1.4.</b>
<b>CCO-5.</b>	<b>DOES THE LAUNCH SUPERVISOR HAVE DIRECT COMMUNICATION WITH RCO DURING MISSIONS?</b>	<b>AFI 13-212, Para 4.16.1</b>

Item No.	Items	References
	<b>PLANNING FOR RANGES</b>	
<b>CCO-6.</b>	<b>DOES RANGE AIRSPACE MEET ALL APPROPRIATE RESTRICTED AIRSPACE REQUIREMENTS? CONSTRAINTS COULD INCLUDE PROXIMITY OF AIRPORTS, PUBLISHED AIRWAYS, JET ROUTES, SPECIAL USE AIRSPACE, AND ADJACENT COMMUNITIES. NEARBY AIR OR GROUND ACTIVITY MUST NOT JEOPARDIZE RANGE OR FLIGHT SAFETY.</b>	AFI 13-212, Para 3.2.4.1.1.2 AFI 13-212_ANGSUP1, Para 3.1
6.1.	Does the Range Operating Agency (ROA) have an active public outreach program? Note: A successful outreach program should include a cross-functional team from the local base that visits neighboring or affected communities on a regular basis.	AFI 13-212, Para 2.5.24
6.2.	HAS A COMPREHENSIVE RANGE PLAN BEEN DEVELOPED, AND ANNUALLY REVIEWED AND ARCHIVED?	AFI 13-212, Para 3.2.4; AFI 13-212_ANGSUP1, Paras 1.5.1, 3.7
	<b>RANGE OPERATIONS, PERSONNEL TRAINING, AND SAFETY</b>	
<b>CCO-7.</b>	<b>IS A UNIT TRAINING PROGRAM ESTABLISHED TO ENSURE ALL PERSONNEL RECEIVE TRAINING ON LOCAL RANGE OPERATING PROCEDURES, MAINTENANCE REQUIREMENTS, AND SAFETY? THIS INCLUDES A SAFETY BRIEFING FOR ALL PERSONNEL VISITING THE RANGE.</b>	AFI 13-212, Paras 4.13.2, and A.2.1
7.1.	HAS THE NIGHT VISION GOGGLE COMPUTER BASE TRAINING PROGRAM BEEN SUCCESSFULLY COMPLETED BY ALL ANG RANGE PERSONNEL PRIOR TO USE OF NVD'S AND REVIEWED ANNUALLY?	AFI 13-212_ANGSUP1, Para 4.1.4.1.1
7.2.	DOES THE RANGE MAINTAIN PROPER LIGHT MANAGEMENT TO ENSURE SAFE NIGHT OPERATIONS? (NOTE: LIGHTING FALLS UNDER SEVERAL CATEGORIES: RANGE IDENTIFICATION LIGHTING, TARGET LIGHTING, RANGE TOWER LIGHTING, ETC.)	AFI 13-212, Paras 4.13.1;4.15.2.1, 4.15.2.3 AFI 13-212_ANGSUP1, Para 4.1.4.1.2
7.3.	IS ALL REQUIRED SAFETY TRAINING PERFORMED? THE TRAINING PROGRAM SHOULD INCLUDE A LIST OF REQUIREMENTS AND DOCUMENTATION OF COMPLETION?	AFI 13-212 A2.1

Item No.	Items	References
7.4.	DOES THE RANGE MONITOR WEATHER CONDITIONS, WIND DIRECTION, AND VELOCITY? IS THIS DATA UPDATED AT LEAST HOURLY IF MONITORING EQUIPMENT IS NOT AVAILABLE ON THE RANGE?	AFI 13-212, Para 4.13.3.2
7.5.	ARE PROCEDURES PROVIDED FOR FIRST AID AND EVACUATION OF INJURED RANGE PERSONNEL AND DOWNED AIRCREW MEMBERS?	AFI 13-212, Para 2.5.25, 4.13.3.3, and 4.13.4.2
7.6.	ARE SUFFICIENT PERSONNEL AND EQUIPMENT AVAILABLE TO DEAL WITH FIRE HAZARDS AT EACH INDIVIDUAL RANGE?	AFI 13-212 Para 4.13.4.1
7.7.	ARE RANGE OPERATIONS AND MAINTENANCE PERSONNEL BRIEFED AT LEAST ANNUALLY ON GROUND AND EXPLOSIVE SAFETY? VISITORS MUST BE BRIEFED BEFORE ENTERING HAZARDOUS AREAS.	AFI 13-212, Paras 4.3.2, 4.13.4.3, A2.1.10
<b>CCO-8.</b>	<b>IS THE RANGE CLEARED FOR LIVE ORDNANCE? IF SO, ARE LIVE TARGET WEAPON SAFETY FOOTPRINT AREAS CLOSED TO PUBLIC ACCESS AND ARE GROUND PERSONNEL/EQUIPMENT ADEQUATELY PROTECTED?</b>	<b>AFI 13-212, Paras 4.12.3, 4.12.4;</b>
8.1.	DO FLANK TOWERS HAVE TWO-WAY PRIMARY AND BACKUP COMMUNICATIO S WITH CONTROL TOWER?	AFI 13-212 Para 4.16.1
8.2.	Are ground-to-air communications on the range recorded?	AFI 13-212 Para 4.16.2.1  AFI 13-212_ANGSUP1, Para 4.1.6.1.2.1
8.3.	HAS A JETTISON AREA BEEN DESIGNATED AND INCLUDED IN THE RANGE INSTRUCTIONS.	AFI 13-212, Para 4.6 ANGSUP1, Para 4.3.12
<b>CCO-9.</b>	<b>ARE PRECAUTIONS TAKEN TO PRECLUDE INADVERTENT OR UNAUTHORIZED ACCESS TO THE RANGE COMPLEX? ARE SIGNS POSTED TO MAKE PEOPLE AWARE OF THE DANGER?SIGNS SHOULD CONTAIN THE STATEMENT "DANGER, GUNNERY RANGE", "AERIAL BOMBING", "LASERS", "RF HAZARD", OR SIMILAR STATEMENTS.</b>	<b>AFI 13-212, Paras 4.12.1,4.12.2,4.12.3;</b>

Item No.	Items	References
9.1.	IS THE RANGE CERTIFIED FOR LASER OPERATIONS? IS THE CERTIFICATION STILL VALID (CERTIFICATION GOOD FOR 3 YEARS GIVEN NO CHANGES)?	AFI13-212, Paras 4.11.1,4.11.3,4.11.5;
9.2.	DO RANGE PERSONNEL HAVE A BASELINE EYE EXAM ON FILE AND WEAR APPROPRIATE LASER SAFETY GOGGLES WHEN WORKING WITHIN THE LASER SURFACE DANGER ZONE?	AFI 13-212, Para 4.11.6
9.3.	ARE FACILITIES WHERE THE RISK OF DAMAGE IS DEEMED UNACCEPTABLE WITHIN THE LIVE WEAPON SAFETY FOOTPRINTS? (DOES NOT INCLUDE WHITE PHOSPHORUS ROCKETS.)	AFI 13-212, Para 4.10.6
9.4.	Does the site maintain a visitor's log?	AFI 13-212, Para 6.1 RMAST
9.5.	Have public notices relative to hazard areas been published?	AFI 13-212, Para 4.3.15.1
9.6.	ARE EMERGENCY PROCEDURES INCLUDED IN THE LOCAL SUPPLEMENT TO AFI 13-212?	AFI 13-212, Para 2.5.14.1
9.7.	ARE GOVERNMENT VEHICLES PROPERLY MAINTAINED AND USED TO PERFORM THE MISSION?	AFI 13-212, Para 4.17
9.8.	DOES THE UNIT HAVE THE PROPER VEHICLES, AUTHORIZATIONS, AND VEHICLE MAINTENANCE INFRASTRUCTURE TO SUPPORT THE MISSION?	AFI 13-212, Para 4.17
<b>ELECTRONIC COMBAT RANGE OPERATIONS AND MAINTENANCE</b>		
<b>CCO-10.</b>	<b>DOES THE UNIT OPERATE AND MAINTAIN ALL RADARS, THREAT SIMULATORS, COMMUNICATIONS, AND WEATHER EQUIPMENT IN ACCORDANCE WITH INSTRUCTIONS AND TECHNICAL ORDERS?</b>	<b>AFI 13-212, Para 6.1</b> <b>RMAST</b>
10.1.	Do threat operators have a working knowledge of electronic combat doctrine and the threat systems they simulate?	AFI 13-212 Para 5.1.3 AFI 13-212_ANGSUP1, Para 5.1.4.1.1
<b>CCO-11.</b>	<b>ARE APPROVED FREQUENCY ASSIGNMENTS AVAILABLE FOR ALL TRANSMISSIONS?</b>	<b>AFI 13-212, Para 5.3</b>

Item No.	Items	References
	<b>REPORTS</b>	
11.1.	Are Range Utilization and Maintenance Reports prepared and submitted according to requirements and maintained for 3 years?	AFI 13-212, Paras 6.1, 6.2, 6.3, 6.4; AFI 13-212_ANGSUP1, Para 6.1
	<b>RANGE MAINTENANCE</b>	
<b>CCO-12.</b>	<b>IS RANGE CLEARANCE SCHEDULED AND ACCOMPLISHED?</b>	AFI 13-2121, Paras 7.2, 7.3; AFI 13-212_ANGSUP1, Para 7.3
<b>CCO-13.</b>	<b>IS ALL RESIDUE THAT LEAVES THE RANGE PROPERLY DEMILITARIZED AND CERTIFIED AND VALIDATED INERT BY QUALIFIED EOD PERSONNEL (EITHER CONTRACTOR OR DOD PERSONNEL)? ARE THESE ACTIONS PROPERLY ANNOTATED ON A CHAIN OF CUSTODY FORM? (EXCEPTION IS TRAINING 20MM AND 30MM AMMUNITION FROM STRAFE PITS.)</b>	AFI 13-212_ANGSUP1, Para 7.4.7 THROUGH 7.4.12 (ADDED) ADDITIONAL REFERENCE; DOD 4160.21-M-1, Chap 2, Para D; APPENDIX 4 CATAGORIES 3, 7, 8
13.1.	IS RANGE RESIDUE PLACED IN A SECURE HOLDING AREA? ACCESS TO THE HOLDING AREA SHOULD BE LIMITED TO ENSURE THAT ONLY ITEMS INSPECTED BY EOD PERSONNEL ARE PLACED THERE.	AFI 13-212_ANGSUP1, Para 7.4.8 (ADDED)
13.2.	Are residues segregated by type to facilitate inventory control?	AFI 13-212_ANGSUP1, Para 7.4.8 (ADDED)
13.3.	ARE PROVISIONS MADE TO ENSURE THAT MAINTENANCE CREWS AND EOD TEAMS MAINTAIN TWO-WAY RADIO COMMUNICATIONS WITH THE RANGE OFFICE/ TOWER WHENEVER DOWN RANGE?	AFI 13-212, Para 4.16.1
<b>CCO-14.</b>	<b>ARE THE 100' X 350' STRAFE IMPACT AREAS DISC-HARROWED OR CHISEL-PLOWED AND IS A MAGNETIC SWEEPER OR DIGGER/ STRAINER USED TO REMOVE SUBSURFACE DEBRIS WEEKLY OR EVERY SIX USE DAYS?</b>	AFI 13-212, Para 1.6  RMAST

Item No.	Items	References
14.1.	IS THE AREA 75 FEET IN FRONT OF THE STRAFE TARGET TO 100 FEET BEHIND THE TARGET, INCLUDING 50 FEET ON EITHER SIDE OF THE CENTERLINE HAND-POLICED DAILY BEFORE THE FIRST MISSION OF THE DAY (TO INCLUDE THE AREAS AROUND THE BERMS AND ON TOP OF THE BERMS)? ARE ALL ROCKS THE SIZE OF A MAN'S FIST OR LARGER, SPENT PROJECTILES, AND OTHER HAZARDOUS DEBRIS REMOVED? DOES THE RCO AND RANGE CREW ENSURE COMPLIANCE WITH THESE REQUIREMENTS?	AFI 13-212, Para 1.6  RMAST
14.2.	Are targets well maintained? This may include replacement of spent conventional and tactical targets, grading of berms, repainting as necessary?	AFI 13-212, Para 1.6  RMAST
14.3.	ARE FACILITIES AND OTHER RANGE IMPROVEMENTS MAINTAINED AND KEPT IN GOOD REPAIR?	AFI 13-212, Para 1.6  RMAST
14.4.	Are roads and grounds maintained adequately to provide access to targets, instrumentation, and other features?	AFI 13-212, Para 1.6  RMAST
14.5.	Are fire breaks maintained to ensure proper fire prevention and protection?	AFI 13-212, Para 1.6  RMAST
<b>CONSTRUCTION</b>		
<b>CCO-15.</b>	<b>ARE TARGET VEHICLES PROPERLY PREPARED BEFORE THEY ARE PLACED IN THE TARGET AREA? THIS INCLUDES DESPECULARIZATION, REMOVAL OF FLUIDS, RADIUM DIALS, BATTERIES, AND OTHER SIMILAR MATERIALS.</b>	AFI 13-212, Para 1.6  RMAST  AFI 13-212 ANGSUP1 Para 2.7.7
15.1.	DOES THE CONTROL TOWER PLAN AND INSTRUMENT LAYOUT PERMIT THE RANGE CONTROL OFFICER FREE MOVEMENT TO ANY SIDE TO OBSERVE THE FLIGHT PATTERN?	AFI 13-212, Para 1.6  RMAST
<b>ENVIRONMENTAL</b>		
<b>CCO-16.</b>	<b>DOES THE RANGE COMPLY WITH THE HOST BASE'S HAZARDOUS WASTE STORAGE AND TURN-IN PROCEDURES?</b>	AFI 13-212, Para 1.6  RMAST

Item No.	Items	References
16.1.	DOES THE RANGE MANAGE INITIAL ACCUMULATION POINTS TO THE HIGHEST SAFETY AND ENVIRONMENT STANDARDS IN ACCORDANCE WITH THE BASE HAZARDOUS WASTE MANAGEMENT PLAN?	AFI 13-212, Para 1.6 RMAST AFPAM 32- 7043, Para 2.7.5.2

CRAIG R. MCKINLEY, Lieutenant General, USAF  
Director, Air National Guard

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

TO 11A-1-60, *Inspection of Reusable Munitions Containers and Scrap Material Generated From Items Exposed To or Containing Explosives*, 15 January 2007

JP 3-09, *Doctrine for Joint Fire Support*, 13 November 2006

JP 3-09.1, *Joint Laser Designation*, 28 May 1999

Title 40, Code of Federal Regulations, Part 260, Military Munitions Rule, 28 July 2008

DoD 4160.21-M-1, *Defense Demilitarization Manual*, 21 October 1991

AFI 13-212, *Range Planning and Operations*, 16 November 2007

AFI 32-1065, *Grounding Systems*, 1 October 1998

AFPAM 32-7043, *Hazardous Waste Management Guide*, 1 November 1995

AFI 33-118, *Radio Frequency (RF) Spectrum Management*, 18 July 2005

AFOOSH STD 48-9, *Radio Frequency Radiation (RF) Safety Program*, 1 August 1997

AFI 90-201, *Inspector General Activities*, 22 November 2004

AFMAN 91-201, *Explosive Safety Standards*, 18 October 2001

AFI 91-202, *The US Air Force Mishap Prevention Program*, 1 August 1998

AFI 91-204, *Safety Investigation, and Reports*, 14 February 2006

AFOOSHSTD 91-501, *Air Force Consolidated Occupational Safety Standard*, 7 July 2004

***Abbreviations and Acronyms***

**AFI**—Air Force Instruction

**AFMAN**—Air Force Manual

**ANG**—Air National Guard

**BCE**—Base Civil Engineering

**CBT**—Computer Based Training

**CCI**—Core Compliance Item

**CCO**—Critical Compliance Objective

**C&SRL**—Compliance and Standardization Requirements List

**DOD**—Department of Defense

**EOD**—Explosive Ordnance Disposal

**FAC**—Forward Air Controller

**GCI**—General Compliance Item  
**HQ**—Headquarters  
**HW**—Hazardous Waste  
**IAW**—In Accordance With  
**ID**—Identification  
**IG**—Inspector General  
**IR**—Infrared Radiation  
**LSO**—Laser Safety Officer  
**NVD**—Night Vision Device  
**RCO**—Range Control Officer  
**RF**—Radio Frequency  
**ROA**—Range Operating Agency  
**ROO**—Range Operations Officer  
**RTO**—Range Training Officer  
**SAM**—Surface-to-air-missile  
**T.O.**—Technical Order  
**UCI**—Unit Compliance Inspection

### *Terms*

**Comprehensive Range Plan**—The totality of documents that provide a wide range of information necessary for decision-making. It encompasses those specific documents determined to be essential for planning and managing a range's assets and operations.

**Core Compliance Item (CCI)**—Areas that require special vigilance and are important to the overall performance of the unit, but are not deemed "Critical." Non-compliance would result in some negative impact on mission performance or could result in injury or possible litigations. CCIs are shown in ALL CAPS FORMAT.

**Core Compliance Objective (CCO)**—Items where unit failure to comply with established guidance could result in significant liabilities, loss of life or serious injury, or significant mission impact. Key mission areas include:

- Airman development programs
- Ability to deploy forces
- Ability to employ forces

CCOs are shown in BOLD AND ALL CAPS FORMAT

**General Compliance Item (GCI)**—Areas deemed fundamental to successful overall performance of the unit, but non-compliance would result in minimal impact on mission accomplishment or would be unlikely to result in injury or possible litigations. GCIs are shown in sentence case format.

**Range Control Officer (RCO)**—The person responsible for range operations and safety. Except in situations where the RCO delegates weapons release clearance to a qualified flight lead, individual pilot or Forward Air Controller, or other briefed person.

**Range Operating Agency (ROA)**—The agency designated to operate and maintain the range. The ROA may delegate the daily scheduling, management, and maintenance of the range to any appropriate subordinate unit.

**Range Residue**—Material including, but not limited to: practice bombs; expended artillery; small arms and mortar projectiles; bombs and missiles; rockets and rocket motors; hard targets; grenades; incendiary devices; experimental items; demolition devices; berms; and any other material fired on, or upon a military range.

**Range Service**—

**Class A** - Range is manned, has a ground-based scoring capability, and has a RCO on the ground that controls aircraft using the range.

**Class B** - Range is either manned or unmanned, has a ground-based scoring capability, but does not have a RCO on the ground controlling aircraft. The flight lead, individual pilot, FAC, or other briefed person performs the RCO function.

**Class C** - Range is unmanned, with no scoring or aircraft control from the ground. The flight lead, individual pilot, FAC, or other briefed person performs the RCO function.

**Class D** - An instrumented air-to-air range. It is manned by a Range Training Officer who maintains radio contact with aircraft on the range during air combat training as required.

**Smokey Sam Simulator**—Training munitions used to simulate surface to air missile launches.

**Target Area**—Target Area is the area on a range complex that immediately surrounds the target or designated mean point of impact. The Target Area demarcation should normally be no less than 1000 feet from the center of the target or designated mean point of impact.

**Weapon Safety Footprint Area**—A closed contour that defines the land area containing 99.99 percent (at a 95 percent confidence level) of all initial impacts and ricochets, resulting from the release of a specified weapon type during air-to-surface weapon delivery events.