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**Space, Missile, Command and Control
RANGE SURVEILLANCE**



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Certified by: 30 OG/CC (Col John W. Raymond)
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This instruction implements and extends guidance from AFI 13-212, *Range Planning and Operations*, dated 07 August 2001. This instruction establishes guidelines and procedures for those responsible for range clearance to follow. This instruction addresses clearance of land, air, and water to ensure a safe environment during all phases of launch operations. This instruction delineates and prescribes responsibilities of the 30th Space Wing (30 SW) and its subordinate units for analysis, coordination and the application of procedures to ensure the safety of personnel and equipment. Refer recommended changes and questions about this instruction to 2 ROPS/DON, 1602 California Blvd, Suite 146, VAFB CA 93437-5233 using AF Form 847, **Recommendation for Change of Publications**. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 37-123 (will convert to AFMAN 33-363), *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at <https://afirms.amc.af.mil/>.

SUMMARY OF CHANGES

Throughout the document, 30 RANS has been changed to 2 ROPS; Range Tasking Office and DOUS have been changed to Range Scheduling Office and DOS; DOUN has been changed to DON. Authority, has been deleted changing entire document numbering; The Flight Safety Analyst (FSA) has been changed to The 30 Space Wing Safety (30 SW/SE) Flight Safety Analyst (FSA) (paragraph 1.4.); changed evaluation to evacuation due to misspelling (paragraph 1.4.2.); launch” has been added (paragraph 1.6.2.); two lines combined to make one line with no concept change (paragraph 1.7.); divided into five separate sections with minimal rewording ,updating to Union Pacific Railroad Company and removing the missile countdowns (paragraph 2. through paragraph 2.4.); Approval Authority has been updated. A bar (|) indicates a revision from the previous edition.

1. Responsibilities.

1.1. 30 SW/CC is assigned:

1.1.1. As the using and scheduling agency of Restricted Areas R-2516, R-2517, and R-2534A, and R-2534B. In addition, the Federal Aviation Administration (FAA) controlling agency for areas R-2534A and R-2534B is the FAA Air Route Traffic Control Center (ARTCC), Los Angeles CA.

1.1.2. Control authority for the surface danger zones.

1.2. Range Operations Commander (ROC) is:

1.2.1. The point of contact for all direct interfaces with the range user during a launch operation.

1.2.2. Responsible for providing range status information for instrumentation, safety, and support to the range user.

1.3. The Mission Flight Control Officer (MFCO) is:

1.3.1. The focal point for all range safety requirements during an operational launch countdown.

1.3.2. Responsible for evaluating all hazards generated by the operation.

1.3.3. The focal point for all hazard analyses and actions required in the event of an operational mishap on base.

1.4. The 30 Space Wing Launch Safety (30 SW/SEL) Flight Safety Analyst (FSA) will:

1.4.1. Provide operational safety analyses, including the generation of safety plans and procedures, and the determination of hazardous areas.

1.4.2. Require hazard and evacuation notices to be issued as necessary.

1.4.3. Provide current hazard analyses on ships and aircraft within hazardous areas during count-down operations.

1.4.4. Accomplish all launch-related operation hazard analyses.

1.5. The Duty Air Controller (DAC) will:

1.5.1. Control those air, land, and sea areas specifically designated as hazardous or which require surveillance control for the operation.

1.5.2. Exercise control of air traffic, surveillance, and display equipment.

1.6. The Aerospace Control Officer (ACO) will:

1.6.1. Direct all activities in the Area Control Center (ACC).

1.6.2. Ensure that airspace, ocean, and land areas specified by the FSA are clear of unauthorized ships, aircraft, vehicles, trains, and personnel during hazardous launch operations.

1.7. The Chief, Airspace and Offshore Management Flight (2 ROPS/DON) is the focal point for any matter, action, or coordination required for airspace and seaspace.

2. General Range Clearance Actions. Surveillance and clearance of land, sea, and air areas in the vicinity of Western Range (WR) hazardous operations is necessary to ensure operations take place in a safe environment.

2.1. A base Launch Support Team (LST) provides fire fighters, medical crew, and emergency support personnel and equipment at a fallback area near the operation site.

2.2. A contract arrangement with the Union Pacific Railroad Company provides for reporting of train traffic through Vandenberg AFB during launches (30 SWI 91-103, *Train Hold Criteria*).

2.3. Advance notices to local harbor masters advise marine vessels and the US Coast Guard of Danger Zone closures. The US Coast Guard, in turn, broadcasts the information on the standard marine channel frequencies for all mariners. Ships at sea are advised of missile hazard areas by Merchant Ship Broadcast (MERCASST) and Hydrographic Notices to Mariners in the Pacific (HYDROPACS).

2.4. Aircraft pilots on overseas and domestic routes are advised of missile hazard areas by a Notice to Airmen (NOTAM). Federal Aviation Regulation (FAR) Part 73.25, 73.15, and 73.17 (14 CFR 73.3), Code of Federal Regulation, Title 33, Section 334.1130, Flight Information Publication (FLIP) AP/1 North and South America and Joint Range Operating Procedure (JROP) #4 NAWC/30 SW 5006 are primary documents providing authority for the above actions.

3. Operational Coordination and Procedures.

3.1. The ROC will:

3.1.1. Coordinate range status with the Western Range user and other range support agencies.

3.1.2. Keep the range user apprised of the range countdown progress, including safety information.

3.2. The MFCO will:

3.2.1. Evaluate the Flight Hazard and Caution areas and require evacuation of personnel, if necessary, due to changes in real-time winds.

3.2.2. Establish a boat exclusion area for the ACO to clear and control.

3.2.3. Evaluate hazards to both freight and passenger trains and determine necessary railroad protection and ensure railroad protection requirements are coordinated with the ACO.

3.2.4. Establish airspace clearance and control requirements and ensure the requirements are coordinated with the ACO.

3.2.5. Become the focal point for all hazard analyses and evacuation requirements for manned sites in the event of a mishap on base.

3.3. The 30 SW/SEL FSA will:

3.3.1. Provide to the MFCO the launch risk to all ships, aircraft, and personnel in the launch and terminal areas.

3.3.2. Ensure all safety plans and procedures are coordinated with other agencies within potentially affected areas.

3.3.3. Provide hazard area impact coordinates, dispersion areas and other information applicable for each launch.

3.3.4. Provide all platform evacuation or sheltering requirements for each operation as appropriate.

3.3.5. Ensure all area clearance and hazard information is provided to the ACO, LST, and the MFCO.

3.4. The Duty Air Controller (DAC) will:

3.4.1. Facilitate the conduct of scheduled air operations by accepting the transfer of all or portions of the designated Warning Areas from the surface upwards, or blocks of altitude therein, from the Naval Air Warfare Center (NAWC) or the Fleet Area Control and Surveillance Facility (FACSFAC).

3.4.2. Upon signing in on position, review the status of the airspace, offshore danger zones, and train reporting system, and report this status to the ACO.

3.4.3. Coordinate with Los Angeles and Oakland ARTCC as required.

3.4.4. Provide prelaunch hazard notices (telephone notices and radio broadcast as required by 30 SWI 91-104, *Operations Hazard Notice*).

3.4.5. Log and report all unauthorized vessels within the applicable danger zones and ship exclusion box to the ACO.

3.5. The ACO will:

3.5.1. Ensure that current train information is documented and reported to the ROC. Additionally, will maintain direct telephone line communication with the trainmaster during countdown operations for train schedule changes (additions, updates, or deletions).

3.5.2. Prior to T-180 minutes, verify with Range Scheduling Office (2 ROPS/DOS) that required notification messages (30 SWI 91-104) have been transmitted and a valid response received.

3.5.3. Log and report unauthorized vessels within the applicable danger zones and ship exclusion box to the ROC.

3.5.4. Report unauthorized aircraft within the hazard area/aircraft exclusion area in the last 15 minutes of countdown to the ROC.

3.5.5. Upon signing in on position, assume responsibility for the surveillance of airspace, offshore danger zones, and train reporting.

4. Adopted Form:

4.1. AF Form 847, **Recommendation for Change of Publications.**

JACK WEINSTEIN, Colonel, USAF
Commander

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

AFI 13-212, *Range Planning and Operations*

30 SWI 91-103, *Train Hold Criteria*

30 SWI 91-104, *Operations Hazard Notice*

Federal Aviation Regulation (FAR) Part 73.25, 73.15, and 73.17 (14 CFR 73.3).

Code of Federal Regulation, Title 33, Section 334.1130 (formerly 204.202).

Flight Information Publication (FLIP) AP/1 North and South America.

Joint Range Operating Procedure (JROP) #4 NAWC/30 SW 5006.

DOD Directive 3200.11, *Major Range and Test Facility Base*.

Terms

Restricted Area—Airspace designated under Federal Aviation Regulation (FAR) Part 73 and identified by an area on the surface of the land or waters of a state within which the flight of an aircraft, while not wholly prohibited, is subject to restrictions. It denotes the existence of unusual and often unobservable hazards to aircraft. Restricted Areas are denoted by a number prefixed with an "R" ([Attachment 2](#)).

Warning Area—Specified international airspace beyond the three-mile limit within which activities may exist constituting potential danger to aircraft. The hazard to aircraft flight in Warning Areas may be of the same or similar nature as the hazards in Restricted Areas. Since Warning Areas are international airspace, hazard notifications are advisory in nature and the agency creating the hazard must exercise "due regard" for the rights and safety of others. Warning Areas are denoted by a number prefixed with a "W" ([Attachment 2](#)).

Danger Zones—Surface Danger Zones extend three miles seaward from the shoreline along the Vandenberg AFB coastline. They are closed for hazardous operations at frequent and irregular intervals. For the most part, Danger Zones are open for general use unless closed by a notice issued *Code of Federal Regulations*, Title 33, Section 334.1130) by the SW to local area harbormasters and the Coast Guard. Closure notices are both sent to harbormasters and broadcast by Frontier Control.

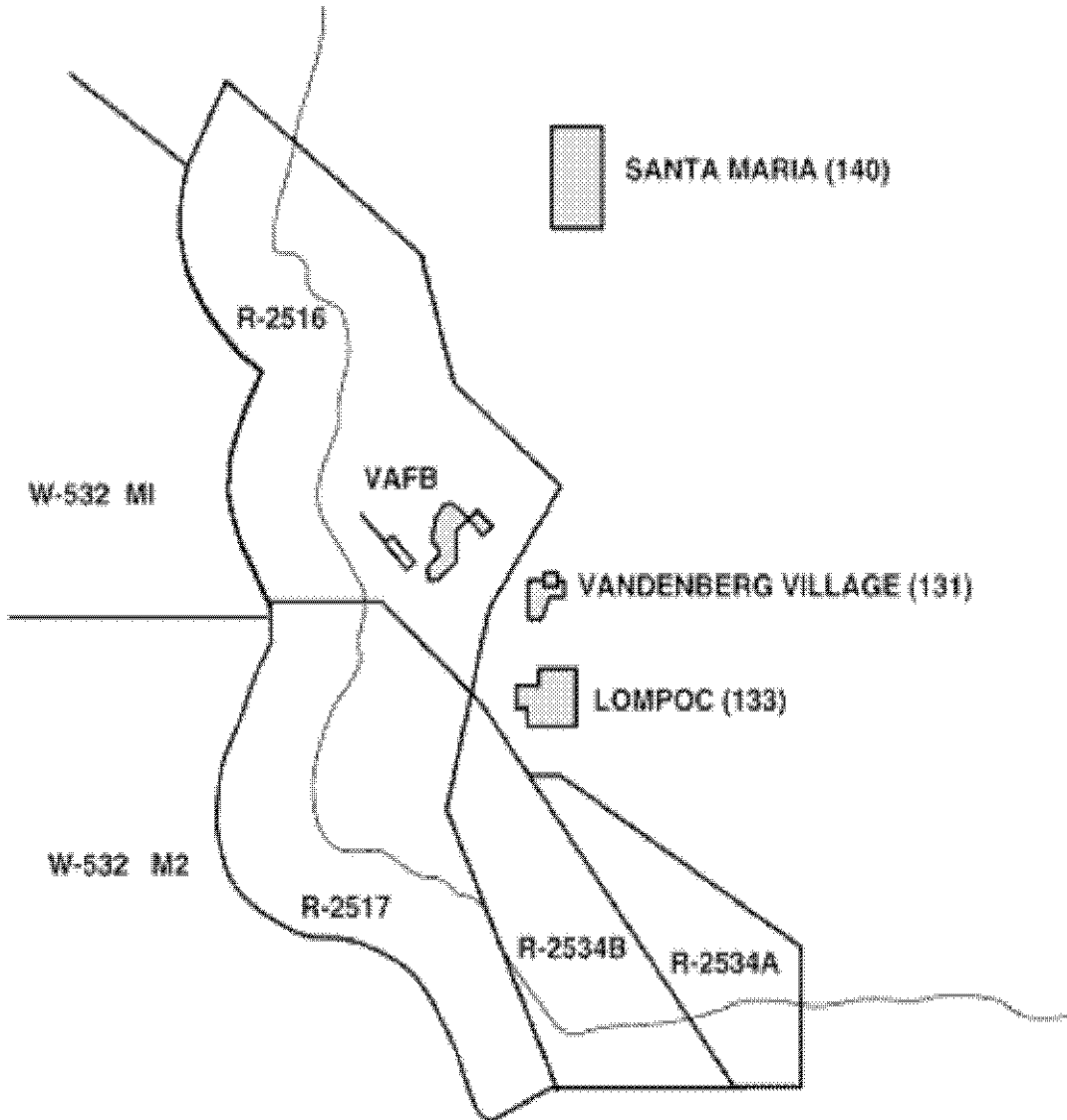
Flight Hazard Area—That area in which significant hazard to personnel and equipment would exist in the event of a malfunction during the early phases of flight. It is the ground and airspace extending to an unlimited altitude and includes the entire area where the risk of serious injury, death, or substantial property damage is so severe as to necessitate exclusion of all personnel and equipment not needed to conduct the launch operation. Personnel required to be within this area during a launch operation must be located within approved shelters or facilities according to Eastern and Western Range 127-1, *Range Safety Requirements*.

Flight Caution Area—That ground and airspace extending to an unlimited altitude outside the Flight Hazard Area where moderate hazards to personnel and equipment would exist because of a flight failure. This area is restricted and only essential personnel are allowed to remain within the Flight Caution Area during launch operations.

Attachment 2

LOCAL WARNING AND RESTRICTED AIRSPACE

Figure A2.1.



Attachment 3**SAMPLE HARBORMASTER DISPLAY****HARBORMASTER DISPLAY (DATE OF NOTICE)**

1. THE CLOSURE AREAS SHOWN ON THE REVERSE OF THIS NOTICE ARE DESIGNED FOR THE PROTECTION OF LIFE AND PROPERTY AND THE PRESERVATION OF SECURITY FOR NATIONAL DEFENSE PROGRAMS. THE FULL COOPERATION OF ALL SMALL CRAFT OPERATORS IS REQUESTED.

2. ZONE CLOSURE INFORMATION WILL BE BROADCASTED BY THE AIR FORCE'S 30TH SPACE WING (30 SW) FROM VANDENBERG AFB, CALL SIGN "FRONTIER CONTROL," ON STANDARD MARINE FREQUENCIES AT 0900 AND 1200, LOCAL TIME, DAILY EXCEPT SATURDAY, SUNDAY, AND HOLIDAYS. VHF CHANNEL 6 (156.3 MHZ) AND 16 (156.8 MHZ) ARE AVAILABLE FOR CONTACTING FRONTIER CONTROL.

3. THE DANGEROUS FIRING ZONES ARE ESTABLISHED IN CONFORMANCE WITH PROVISIONS OF CODE OF FEDERAL REGULATIONS, TITLE 33, SECTION 334.1130 (FORMERLY 204.202). THE ZONES AS PUBLISHED SHOULD BE CONSIDERED PRIMARILY AS GUIDELINES FOR HAZARDOUS SURFACE OPERATIONS. IN MANY INSTANCES THE HAZARDOUS CONDITIONS WILL EXIST TO SEAWARD IN EXCESS OF THE THREE-MILE LIMIT. AS A GENERAL RULE, WHEN A ZONE IS INDICATED AS BEING HAZARDOUS TO SURFACE OPERATIONS, BOAT OPERATORS SHOULD NOT ASSUME THAT THE AREA ABUTTING THE ZONE SEAWARD IS SAFE FROM FALLOUT OF HAZARDOUS DEBRIS. INFORMATION AS TO THE STATUS OF THE DANGER ZONES MAY BE OBTAINED BY TELEPHONING 1-800-648-3019.

4. SMALL CRAFT OPERATORS ARE INVITED TO CALL "FRONTIER CONTROL" ANYTIME WHEN THEY ARE IN DIFFICULTY OR IN DISTRESS. WHEN RANGE AIRCRAFT ARE IN THE AREA; ASSISTANCE WILL BE RENDERED IF POSSIBLE. ANY OTHER TIME, THE US COAST GUARD WILL BE ALERTED. PERSONNEL AT "FRONTIER CONTROL" CAN BE REACHED BY TELEPHONING (805) 606-4472 OR (805) 606-4508, MONDAY THROUGH FRIDAY FROM 0800 TO 1600 FOR ANY ADDITIONAL INFORMATION DESIRED.