## **RCA San Clemente Island**

## March 2004

**Munitions Handling and Storage**—Munitions are specifically designed for safe handling, storage, and transportation by containerizing energetic materials in components that are detached until needed for testing, training, or fighting. In addition, stringent safety standards for munitions handling and storage are designed to prevent and monitor releases of energetic materials through periodic inspections and routine testing, and any releases would be accidental and difficult to predict. For these reasons, areas where munitions are handled and stored have been omitted from further analysis, unless included due to other munitionsrelated activities.

**Weapons Testing and Training** – Firing Points—The potential release of modeling compounds from firing points are annually evaluated during the Emergency Planning Community Right-to-Know Act (EPCRA) Toxics Release Inventory (TRI). The last report (U.S. Navy 2001a) indicated no releases of the HMX, RDX, TNT, 2,4-DNT, or perchlorate (i.e., the modeling compounds). For these reasons, firing points are omitted from further analysis in this report, unless included due to other munitions-related activities.

**Weapons Testing and Training** – Impact/Target Areas— The principal focus of the ORSM is on the release of modeling compounds from impact/target areas, since they are the most likely potential source of modeling compounds in the environment at SCI. MIR and SHOBA are investigation areas are also in this report.

**Weapons Testing and Training** – Demolition Ranges— The release of modeling compounds from demolition ranges is possible. MIR and SWATs 1 and 2, particularly TARs 1 and 4 were evaluated in this report.

**Weapons Testing and Training** – Range Safety Fans—Although the release of modeling compounds from munitions landing in safety fans are possible, the quantities landing in safety fans are difficult to predict and are significantly less than the number landing in impact/target areas. In addition, the majority of safety fans surface area is in the water surrounding SCI. For these reasons, range safety fans are omitted from further analysis.

**Troop Training**—It is unlikely that troop training as defined above could cause the release of modeling compounds (i.e., troops would use established impact/target areas and demolition ranges for training with munitions rather than using areas for maneuvering or encampments). Therefore, designated troop training areas are omitted from further analysis, unless included due to other munitions-related activities.

Munition-Related Activity *	Primary Source	Location
Munitions Handling and Storage	Transfer Points – Areas where munitions shipments occur Storage Magazines/Ammunition Supply Points – Areas where munitions storage and/or issuance occurs	<ul> <li>Aircraft delivery – NALF and VC-3 Red Label Areas</li> <li>Amphibious vehicle delivery – West Cove or Northwest Harbor</li> <li>Barge delivery – Wilson Cove</li> <li>BUDs Camp, Observation Point 1, and Missile Assembly Building Ready Service Lockers (RSLs)</li> <li>Magazines 60320 to 60325</li> <li>NALE and VC-3 Red Label Areas</li> </ul>
Weapons Testing and Training	Firing Points – Areas where weapons systems are placed for testing and training, including mobile systems (e.g., truck-mounted systems)	<ul> <li>NALF Airfield (missile launches)</li> <li>NOTS Pier (missile launch tubes)</li> <li>Offshore areas near SCI</li> <li>Others (e.g., Point Mugu Naval Weapons Test Range)</li> <li>SHOBA</li> </ul>
	Impact/Target Areas – Areas targeted by weapons systems Demolition Ranges – Areas where explosives are used during training, testing, or munitions disposal Range Safety Fans – The area on ranges extending beyond impact areas to provide safety zones to contain ricochets, blasts, and fragmentation from exploding munitions	<ul> <li>MIR</li> <li>SHOBA – Impact Areas I, II, and IIa</li> <li>MIR</li> <li>Special Warfare Training Areas (SWAT) 1 and 2</li> <li>TAR 1 – Northeast Point Demolition Range</li> <li>TAR 4 – Whale Point/Castle Rock</li> <li>Wilson Cove Exclusive Use Zone</li> <li>Wilson Cove Security Zone</li> <li>Southeast Wilson Cove Restricted Area</li> <li>Wortheast Cove Restricted Area</li> </ul>
Troop Training	Combat Range – Areas used for combat maneuvers	<ul> <li>West Cove Restricted Area</li> <li>Northwest Danger Zone</li> <li>West Cove Danger Zone</li> <li>SHOBA Danger Zone</li> <li>Old Airfield (VC-3)</li> <li>Northwest Harbor</li> </ul>
	Bivouac and Encampment Areas – Troop living areas (bivouacs are short-term areas, encampments are long-term, more permanent installations)	<ul> <li>West Cove</li> <li>Assault Vehicle Area</li> <li>Lemon Tank (conditional)</li> <li>MIR (conditional)</li> <li>Northeast Light (conditional)</li> <li>Northhead</li> <li>Northern Plateau (conditional)</li> <li>Northwest Harbor</li> <li>Old Airfield</li> <li>SHOBA</li> <li>West Cove (conditional)</li> <li>Western Terraces (conditional)</li> <li>Wilson Cove</li> </ul>
Defensive Positions	Minefields – Areas containing buried or surface placed anti-personnel or anti-tank mines Gun Emplacements – Areas where defensive weapons (e.g. anti-aircraft guns) are located	None SHOBA

Table 4-1. Munitions-Related Activities Occurring Onshore at SCI

Munition-Related Activity *	Primary Source	Location
Sanctioned Ordnance Disposal	Mass Burial/Landfills with Munitions – Areas where large quantities of ordnance were disposed of by burial Open Burn/Open Detonation (OB/OD) – Areas where ordnance was consolidated and disposed of by either burning or detenation	None None
	Bomb Jettison Area – Areas where bombers jettison bombs prior to landing	None

Table 4-1. Munitions-Related Activities Occurring Onshore at SCI (continued)

**Defensive Positions**—Gun emplacements on SCI are temporary. In addition, the area where defensive weapons are positioned (i.e., SHOBA) already is included because it is in the vicinity of target/impact areas.

**Sanctioned Ordnance Disposal**—Except for ordnance disposal related to removal of debris near targets, there are no sanctioned ordnance disposal areas on SCI. For this reason, sanctioned ordnance disposal areas are omitted from further analysis, unless included due to other munitions-related activities.



Figure 4-1. San Clemente Island Investigation Areas

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## 4.2 Operational Component

This section summarizes information about land-based military operations, particularly where operations utilizing munitions are conducted, since RSEPA Decision Point 1 is concerned with releases of munitions constituents to off-range areas. Sections 4.2.1, 4.2.2, and 4.2.3 describe past, current, and planned future uses the SOCAL ranges, respectively. The majority of the information presented in section reflects current range use. Current and future uses of ranges are more relevant than past uses to the primary purpose of RSEPA, which is sustainment of operational ranges.

Ceded