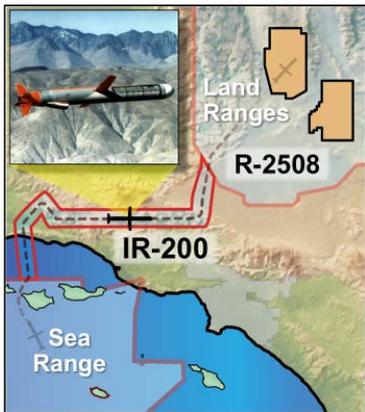


Mission. Airfields at China Lake, Point Mugu, and San Nicolas Island provide comprehensive flight services and can safely handle most operational models of military aircraft. They offer a full range of operational capabilities and related facilities supporting RDT&E projects. NAWCWD operates the Navy's R&D squadrons including VX-30 at Point Mugu and VX-31 at China Lake. Operational testing is conducted by VX-9 under the Command Operational Test and Evaluation Force (COMOPTEVFOR). The Marine Aviation Detachment (MAD) provides aviation support.



Unique Features. The R-2508 Airspace Complex at China Lake extends over 20,000 square miles of land, and represents 12 percent of California's total airspace. The W-289 warning area at Point Mugu encompasses the 36,000-square-mile Sea Range. Unlike most military airfields that focus on training operational / deployable squadrons (100 and 200 series CCNs [category code numbers]), the primary purpose of the NAWCWD airfields is to support varying programs with a specialty in aircraft weapons integration. Consequently, most of the airfields are functionally classified within the 300 (laboratory) series. **Exceptional T&E Year-Round Flying Weather.** China Lake is noted internationally for having outstanding flight conditions with visibility to 26.9 miles and clear weather 93% of the time—339 clear days per year!



IR-200. The IR-200 corridor is 4-10 nautical miles wide and approximately 500 nautical miles in length. It extends from the West Coast (Point Mugu/ VAFB), transitions over land through unpopulated areas, and enters the R-2508 Airspace Complex on the southwest corner. The flight route for cruise missiles joins the Sea Range with the 20,000-square-mile Joint Service Restricted Airspace Complex (R-2508). The IR-200 was established for the cruise missile program, and a terrain contour-matching (TERCOM) database is available for the entire route. The layout also allows for emergency recoveries at each one of the ranges.

RDT&E. Airfields support a variety of weapons system testing and warfighter training with real-world application. New areas of T&E and training support improved products in ordnance disposal, IED detection and countermeasures, and UAV intelligence gathering.

Operational capabilities include tactical air navigation (TACAN), Instrument Landing System (ILS) navigational aids, approach control, control tower operations, 24-hour crash crew response, and emergency



aircraft arresting gear (E-28) on all runways. Aircraft support includes maintenance and supply facilities, fuel storage, and ground support equipment. Customs and agriculture inspections for aircraft arriving from overseas are available with prior coordination. Aircraft parking with tie down capability is also available. Spaces for operating detachments are available as well as first-class galleys. Limited transient quarters are available at all three airfields.

Unmanned Aircraft Operations. These systems have played a continuous role in U.S. military operations since World War I including Vietnam, Persian Gulf, and Balkans conflicts, as well as operations in Afghanistan and Iraq. NAWCWD's aerial target drones of the 1960s, typically refurbished and reconfigured combat aircraft such as the QF-4 Phantom II, are precursors to today's unmanned aircraft. The supersonic QF-4, a reusable full-scale target drone modified from the F-4 Phantom, provided a realistic full-scale target for air-to-air weapons system development, test, and evaluation (DT&E). In 1985, the Division supported the BQM-74C and the Pioneer remotely piloted vehicle (RPV) programs. Point Mugu flight-tested the Pioneer UAV, while China Lake conducted net testing—recovery of the aircraft after launch. The Pioneer program ended in 2008, but the success of Pioneer led to the development of an array of more advanced aircraft. Today, the Pioneer systems are being reconstituted as target drones.



- **First Flights.** Northrop-Grumman's RQ-8 (Fire Scout) and X-47A (Pegasus), first FAA-authorized transcontinental flight from Patuxent River to Point Mugu by Northrop-Grumman's Global Hawk, and the first flight of the Navy's ScanEagle. (See separate UxS Quick Facts.)

- **Size / Scope.**
- **China Lake.** Annual events: 27,000+. **Runways: 3**
 - **Lengths (ft):** 10,000 / 9,013 / 7,702
- **Point Mugu.** **Runways: 2.** **Lengths:** 11,102 / 5,502
- **SNI.** **Runway: 1.** **Length:** 10,002



Developmental Testing

- **Air Test and Evaluation Squadron THREE ZERO (VX-30) Point Mugu.** VX-30 is committed to providing unparalleled RDT&E of manned and unmanned, fixed- and rotary-wing aircraft and weapon systems, and to supporting the Sea Test Range locally and worldwide. Pilots log more than 2,000 hours of testing and training missions annually with a stable of seven to nine aircraft. Aircraft include the P-3, C-130, and S-3.
- **Air Test and Evaluation Squadron THREE ONE (VX-31) China Lake.** VX-31 is chartered with the DT&E of current and future manned aircraft, weapons, and weapon systems. Additionally, the squadron is responsible for search and rescue operations throughout the high desert and eastern Sierra Nevadas. VX-31 operates 11 different types of aircraft, whereas most squadrons use a single platform. The squadron executes over 4,000 hours of testing, training, and search and rescue flights annually. VX-31 currently maintains 30 aircraft including the FA-18A++/C/D, FA-18E/F, EA-18G, AV-8B, T-39, UH-1Y, AH-1Z, and MH-60S.

Operational Testing

- **Air Test and Evaluation Squadron NINE (VX-9).** VX-9 is responsible for operational testing and evaluation (OT&E) and tactics development and evaluation (TAC D&E) for Navy and Marine Corps strike, electronic attack, and rotary-wing light attack aircraft. TAC D&E involves developing and evaluating new and advanced tactics. VX-9, in conjunction with COMOPTEVFOR, reports on the effectiveness and suitability of weapons system and software acquisition programs. Whereas each fleet squadron normally operates a single platform, VX-9 must maintain multiple aircraft representing the full spectrum currently in the Fleet. VX-9 currently maintains about 25 aircraft including the FA-18C/D, FA-18E/F, EA-18G, AH-1W, AH-1Z, UH-1Y, and AV-8B. The squadron operates at a high tempo with frequent detachments to ranges throughout the United States.
- **Marine Aviation Detachment (MAD).** MAD is tasked with providing management, aviation support, and technical expertise to assigned Marine Corps weapons systems throughout their life cycle. MAD provides administrative and logistical support for Marines assigned to NAWCWD, VX-9, and all Marines at Naval Air Weapons Station (NAWS) China Lake and Naval Air Station (NAS) Point Mugu. MAD supports Marine officers assigned to the Air Force Test Pilot School at Edwards Air Force Base.



Historical Significance. The airfields at both China Lake and Point Mugu were the starting points for base-wide construction. China Lake's airfield began in 1943 soon to be followed by the build-up of the Naval Ordnance Test Station (NOTS). Testing began at China Lake within less than a month of the Station's formal establishment. At Point Mugu, Seabees put down a Marsden Mat runway as the first airstrip in 1946, and this was soon to be followed by the build-up of the Naval Air Missile Test Center (NAMTC). China Lake answered an initial need for testing and evaluating rockets being developed by the California Institute of Technology. Point Mugu was the U.S. Navy's first instrumented missile-test sea range and has conducted RDT&E on numerous weapon systems ever since.

China Lake – 3 Runways

Point Mugu – 2 Runways

San Nicolas Island – 1 Runway

