



Operational Range Assessment Cape Canaveral Space Force Station

Air Force Operational Range Assessment Program

September 2021

Background

DoD uses and manages operational ranges to support national security objectives and maintain the high state of operational readiness essential to its mission requirements. The Department conducts non-regulatory, proactive, and comprehensive operational range assessments (ORAs) to support the long-term sustainability of these ranges while protecting human health and the environment. The purpose of an ORA is to determine if there is a release or substantial threat of a release of munitions constituents from an operational range to an off-range area that exceeds an applicable regulatory standard or creates a potential unacceptable risk to human health or the environment.

The USAF Operational Range Assessment Program (ORAP), established to comply with DoD policy, sets forth procedures for consistently conducting ORAs throughout the Air Force. The USAF ORAP assessment methodology uses an installation-wide approach to verify the ORAP inventory and accomplish range-specific assessments. An Air Force ORA is comprised of two primary phases: Qualitative Assessment, Phase 1 and Quantitative Assessment, Phase 2 (if required).

- A Qualitative Assessment, Phase 1, encompasses records review, interviews, and a visual survey.
- A Quantitative Assessment, Phase 2, encompasses records review, interviews, visual survey, and environmental media sampling.

Installation Overview

Cape Canaveral Space Force Station (CCSFS) is located on a barrier island called the Canaveral Peninsula in Brevard County, Florida, approximately 60 miles east of Orlando. CCSFS occupies approximately 16,198-acres and is considered a Geographically Separated Unit of Patrick Space Force Base, which is located approximately 10 miles to the south.

ORAP Findings: August 2021 ORA Report

- Munitions constituents (MC) metals, explosives, and perchlorate may be transported to off-range locations via the discharge of shallow groundwater to surface water pathway.
- No actual or potential off-range migration of MC is known or suspected.
- No unacceptable risks to human health or the environment were identified.

Next Steps

CCSFS is scheduled to be assessed in accordance with USAF and DoD policy specifying periodic assessment at least every five years or sooner if significant changes occur that may impact assessment decisions.



Installation Overview Continued

During implementation of the ORAP at CCSFS, three operational areas were determined to be eligible and assessed under the USAF ORAP – the Explosive Ordnance Disposal (EOD) / Small Arms Range (SAR) Complex, the EOD Proficiency Training Range, and the Eastern Range. The EOD Proficiency Training Range and Eastern Range were determined to be eligible for assessment under the ORAP but were not included in the scope of this effort and will be evaluated under the next scheduled installation-wide assessment.

The following sections summarize USAF ORAP efforts for the complex. This is the third ORA conducted at the EOD / SAR Complex.

EOD / SAR Complex Assessment Overview

The EOD/SAR Complex encompasses 278.63 acres in the southeastern portion of the installation, directly adjacent to the Atlantic Ocean. The complex boundary contains a SAR Facility and an EOD Range, which consists of an Open Burn (OB) area, equipped with two Thermal Treatment Units, and an Open Detonation (OD) area. The range boundary is defined by the on-installation portion of the OD area's 2,500-ft safety zone. The EOD Range is used approximately one time per month for emergency detonations and proficiency training and the SAR Facility has been inactive since 2013 due to structural damage. The activities on the OB and OD areas are subject to a Resource Conservation and Recovery Act (RCRA) operating permit. EOD proficiency training activities are co-located with the OD area.

Prior Phase 1 ORAs were completed in 2010 and 2017 for the EOD/SAR Complex which identified a potential source of MC within surface and subsurface soils. However, both ORAs determined there were no complete pathways to human or ecological receptors and recommended a periodic Phase 1. The 2017 ORA recommended the RCRA operating permit for the EOD Range be revised to include the entire MC list.

In 2021, a periodic Phase 1 ORA was completed. A potential MC source was identified within the graded areas associated with the EOD Range, including at the detonation area and surrounding the concrete pad of the OB area, as well as remnant MC on the range floor near the firing points and within the earthen impact berm at the SAR Facility. The groundwater to surface water exposure pathway for ecological receptors was determined to be potentially complete due to depth to groundwater and RCRA permit sampling data indicating historical exceedances of MC. However, current RCRA sampling data indicated no exceedances of MC. In congruence with the 2017 ORA, an initial Phase 2 was recommended to sample existing monitoring wells and analyze for the full MC list, as the operating permit has not been modified to include all suspected MC.

For more information on this assessment or the Air Force Operational Range Assessment Program contact the Ranges Subject Matter Expert, Technical Branch, Environmental Quality Directorate, Air Force Civil Engineer Center For more information on the DoD Operational Range Assessment Program visit <https://denix.osd.mil/orap/home/>