

FINDING OF NO SIGNIFICANT IMPACT (FONSI)
CENTAUR CRYOGENIC TANKING FACILITY AND
CENTAUR PROCESSING BUILDING
CAPE CANAVERAL AFS, FLORIDA

1. INTRODUCTION

The U.S. Air Force (USAF) proposes to construct two new off-line processing facilities at Cape Canaveral Air Force Station (CCAFS), Florida to support the Titan IV program. One purpose of the Titan IV program is placement of national security satellites in orbit. The program is required to maintain Department of Defense mission requirements to place national security satellites in orbit.

2. PROPOSED ACTION

The new facilities, known as the Centaur Cryogenic Tanking Facility (CCTF) and Centaur Processing Building (CPB), will be used to perform all testing and processing of the Centaur upper stage prior to mating with the Titan IV core vehicle. Presently all pre-launch processing of the Centaur upper stage must be done in the Vertical Integration Building, cell 3. This serial processing can accommodate only four launches per year. However, as early as 1994, Titan IV program launches will be required to exceed that rate. Therefore, an off-line processing facility will be needed to support the program. The CCTF and CPB will provide off-line processing and multiple vehicle storage and minimize the checkout time on the launch pad, increasing the launch rate to at least five Titan IV/Centaurs per year. The facilities also will provide for future processing of Atlas/Centaur vehicles.

The CCTF will consist of a Cryogenic Tanking Cell (CTC); a CTC Support Building; an Operations Support Building; and other support facilities such as sewage treatment facilities, generator buildings and substations, security facilities, and storage. The CPB will include two assemble/checkout cells and two storage cells; and a future Atlas Booster processing facility.

CCAFS is located along the eastern coast of Florida near the city of Cocoa Beach in Brevard County. The station occupies approximately 15,800 acres (25 square miles) of a barrier island that is bounded on the east by the Atlantic Ocean and on the west by the Banana River. The proposed location for the CCTF and CPB is on a site adjacent to

Cape Road, near the Titan Integrate, Transfer, and Launch area. The proposed site currently is vacant and previously was used for stockpiling of fill that was used in construction of various facilities and launch complexes.

Alternatives considered for the proposed action were modification of Complex 36A into a suitable processing facility and construction of the facilities in the industrial area near Hanger J. Complex 36A was eliminated from further consideration due to cost considerations; it has since been activated for Atlas launches. Locating the facilities in the industrial area was dismissed due to safety constraints. The current proposed site was moved south from the corner of Cape Road and Telemetry Road and has been set back 245 feet from Cape Road to reduce impact to Florida scrub jay habitat and potential archaeological sites.

3. SUMMARY OF ENVIRONMENTAL IMPACTS

This environmental assessment consisted of reviewing the potential impacts of CCTF and CPB construction and operation on the natural and manmade environment. A summary of findings for each subject area is given below.

Air Quality

Construction of the CCTF and CPB will not violate ambient air quality standards for fugitive dust. Other air pollutants generated during construction would be limited and temporary and also should result in no significant impact.

During operation, emissions from the standby generators are not expected to result in any significant impact. During tanking operation, emissions of hydrazine from the scrubber may exceed the State “no threat level” for hydrazine in the vicinity of the east shore of the Banana River west of the CCTF/CPB site. However, based on the relative short duration and infrequent occurrence of the tanking operation during the year, the predicted ground-level concentrations will pose no threat to the health of the offsite population; however, hydrazine levels will be discussed with the Florida Department of Environmental Regulation during the permit application process for the scrubber. Predicted hydrazine emissions do not exceed worker protection standards for onsite employees.

Water Quality

Construction and operation of the CCTF and CPB will not result in significant impacts on surface water or ground water quality or hydrology. Storm water runoff would be collected in a series of swales and cross-road drains. There will be no surface water discharge from the site. Effluent from properly designed and operated onsite wastewater treatment and disposal plant will not cause water quality degradation or mounding of the water table. Proper design and maintenance of the swales and the wastewater plant will preclude adverse impacts to local hydrology and water quality.

Geology and Soils

The CCTF and CPB will not alter site geology and, aside from covering parts of the site with impervious materials, will not alter site soils. Impacts to geology or soils are not expected.

Biota

Development of the proposed site will affect approximately 35 acres of vacant but previously disturbed terrain. Some plant communities and animal habitats will be eliminated.

Two Federally threatened and two State species of special concern are among the species observed or potentially found on the site. The two threatened species are the eastern indigo snake and the Florida scrub jay. The two species of special concern are the gopher tortoise and the Florida mouse. The facilities have been set back approximately 245 feet to the west of Cape Road in order to preserve prime Florida scrub jay habitat. Two crossings of this set-back area will be required for the access road and utilities. Compliance with the guidelines of the CCAFS Scrub Jay Management Plan for construction of the CCTF and CPB will minimize adverse impacts to scrub jays in the vicinity.

The Air Force initiated consultation with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act of 1973. USFWS concurred with the Air Force's determination that the CCTF and CPB would have "no effect" on threatened or endangered species.

Socioeconomics and Population

Of the 200 operations personnel anticipated for the CCTF/CPB, up to 40 will be relocated from outside Brevard County. This will not cause a significant impact on local population, housing, schools, infrastructure, or transportation.

The economic impact of construction and of the relocated personnel will have a slight positive impact on the economy.

Waste

In the event of a spill in the diesel generator building, an oil-water separator connected to the floor drain would provide containment. A spill in the Paint, Oil, and Lubricants Building would be contained by a non-draining collection sump connected to the floor drain. The CTC, where hydrazine (N₂H₄) tanking will be performed, will have a hazardous waste floor drain system connected to a sump for collection of N₂H₄ spills, reinstatement waste, and line flush waste. From the sump, waste will be pumped to an above-ground emergency spill storage tank. Scrubber liquor from the N₂H₄ scrubber is an additional hazardous waste. The Joint Propellants Contractor will be responsible for collection and disposal of these wastes in accordance with local, State and Federal regulations.

With the use of proper containment and waste handling/disposal practices that will meet all local, State, and Federal requirements, no adverse impact is expected.

Safety and Noise

The CCTF and CPB will be designed to accommodate cryogenic and hypergolic storage and transfer areas in accordance with the Explosives Quantity Distances Siting and Safety Criteria of Air Force Regulations. Safety features include revetments between the CTC and CTC Support Building and between the CTC and liquid hydrogen storage; spill disposal means for N₂H₄; removal of volatilized N₂H₄ by a scrubber; evacuation of non-essential personnel and use of protective gear during N₂H₄ tanking; spill retention areas; and fire protection systems. With the use of these and other safety measures that will meet all local, State, and Federal requirements, no adverse safety impact is expected.

The primary noise concern is construction noise, which will be mitigated through the use of hearing protection for construction workers and noise abatement devices on construction equipment. Thus, no significant noise impact will result from the CCTF and CPB.

Cultural Resources

A U.S. Army Corps of Engineers survey concluded that the CCTF and CPB will not impact any historic or archaeological resources at CCFAS. The State Historic Preservation Officer concurred with the Corps of Engineers' conclusions.

4. FINDINGS

Based on the above discussion and the supporting Environmental Assessment, a finding of no significant impact is made. Copies of the Environmental Assessment on the proposed action, dated October 1991, can be obtained from:

Department of the Air Force
Headquarters, Space Systems Division, SSD/DEV
P.O. Box 92960
Los Angeles AFB, CA 90009-2960
ATTN: Mr. Daniel Pilson

APPROVED: HQ SSD Environmental Protection Committee

OCT 18 1991


EUGENE L. TATTINI
Colonel, USAF
Vice Commander