



Air Station Barbers Point Hangar Construction

Report to Congress
August 18, 2023



U.S. Coast Guard

Foreword

August 18, 2023

I am pleased to present the following report, “Air Station Barbers Point Hangar Construction,” prepared by the U.S. Coast Guard.

The Don Young Coast Guard Authorization Act of 2022 directs the submission of a report on facility requirements for constructing a hangar at Coast Guard Air Station Barbers Point at Oahu, Hawaii.

Pursuant to Congressional requirements, this report is provided to the following members of Congress:

The Honorable Maria Cantwell
Chair, Senate Committee on Commerce, Science, and Transportation

The Honorable Ted Cruz
Ranking Member, Senate Committee on Commerce, Science, and Transportation

The Honorable Sam Graves
Chairman, House Committee on Transportation and Infrastructure

The Honorable Rick Larsen
Ranking Member, House Committee on Transportation and Infrastructure.

I would be pleased to answer any questions you may have, or your staff may contact my Senate Liaison Office at (202) 224-2913 or House Liaison Office at (202) 225-4775.

Sincerely,



Linda L. Fagan
Admiral, U.S. Coast Guard
Commandant





Air Station Barbers Point Hangar Construction

Table of Contents

I. Legislative Language	1
II. Report.....	2
III. Conclusion	5

I. Legislative Language

This report responds to the language set forth in Section 11232 of the Don Young Coast Guard Authorization Act of 2022 (Pub. L. No. 117-263), which reads:

SEC. 11232. REPORT ON COAST GUARD AIR STATION BARBERS POINT HANGAR.

(a) **IN GENERAL.**—Not later than 180 days after the date of enactment of this Act, the Commandant shall submit to the Committee on Commerce, Science, and Transportation and the Committee on Appropriations of the Senate and the Committee on Transportation and Infrastructure and the Committee on Appropriations of the House of Representatives a report on facilities requirements for constructing a hangar at Coast Guard Air Station Barbers Point at Oahu, Hawaii.

(b) **ELEMENTS.**—The report required by subsection(a) shall include the following:

- (1) A description of the—
 - (A) \$45,000,000 phase one design for the hangar at Coast Guard Air Station Barbers Point funded by the Consolidated Appropriations Act, 2021 (Public Law 116–260; 134 Stat. 1132); and
 - (B) phase two facility improvements referenced in the U.S. Coast Guard Unfunded Priority List for fiscal year 2023.
- (2) An evaluation of the full facilities requirements for such hangar and maintenance facility improvements to house, maintain, and operate the MH–65 and HC–130J, including—
 - (A) storage and provision of fuel; and
 - (B) maintenance and parts storage facilities.
- (3) An evaluation of facilities growth requirements for possible future basing of the MH–60 with the C–130J at Coast Guard Air Station Barbers Point.
- (4) A description of and cost estimate for each project phase for the construction of such hangar and maintenance facility improvements.
- (5) A description of the plan for sheltering in the hangar during extreme weather events aircraft of the Coast Guard and partner agencies, such as the National Oceanic and Atmospheric Administration.
- (6) A description of the risks posed to operations at Coast Guard Air Station Barbers Point if future project phases for the construction of such hangar are not funded.

II. Report

The Coast Guard is responding to changing operational and risk environments with an enterprise effort to modernize its aviation fleet. Upgraded, modernized airframes offer the service increased mission capability that optimizes Coast Guard aviation's contribution to national strategic objectives. The Coast Guard identified a need for shore infrastructure improvements which are critical for long term mission success. Shore infrastructure improvements can enable continued operations and maximize the Coast Guard's return on investments of new aircraft.

The Coast Guard first documented a shortfall of suitable and sufficient space for HC-130J¹ maintenance in the 1998 Air Station Barbers Point Master Plan. In 2005, the Coast Guard completed a quantitative impact study on the *Impacts of Open-Air Staging at Air Station Barbers Point*, which concluded that Air Station Barbers Point aircraft are severely impacted by corrosion and hangars with controlled humidity protection are needed. A follow up space utilization study determined that Air Station Barbers Point is approximately 80 percent deficient in space for HC-130J storage and maintenance. Coast Guard capital planning efforts began in 2006 and continue today.

Facility Construction Projects

Air Station Barbers Point requires a storage facility to protect up to four HC-130J aircraft from the corrosive environment of Hawaii. To accommodate a new hangar the Coast Guard acquired land from the U.S. Navy in 2012 as part of a no-cost Base Realignment and Closure transfer. In support of the Planning Proposal and Land Acquisition processes, the Coast Guard completed an environmental analysis that identified potential petroleum-based contamination and sinkholes.

A National Environmental Policy Act (NEPA)² analysis, conducted by a third-party environmental engineering firm, determined there was no significant contamination or sinkhole risk at the project site at the time of transfer. The Coast Guard is conducting another environmental survey for the presence of per- and polyfluoroalkyl substances at the hangar site. The report will provide recommended scope, scale, and methods of remediation. The results of this report may influence the temporary hangar project scope and cost described above.

In Fiscal Year (FY) 2019, \$7 million was appropriated to fund facility improvements to provide liquid oxygen (LOX) support facilities, including a tank storage facility, maintenance support building, and addition of a one-story propeller shop addition to the existing hangar. The Coast Guard awarded a construction contract on August 19, 2022.

¹ The Coast Guard's HC-130J Super Hercules long range surveillance aircraft provide heavy air transport and long-range maritime patrol capability. Each aircraft can serve as an on-scene command and control platform or as a surveillance platform with the means to detect, classify and identify objects and share that information with operational forces. The Coast Guard is acquiring a fleet of 22 new, fully missionized HC-130J aircraft to replace its legacy HC-130H.

² 42 U.S.C. §4321 et seq. (1969): NEPA was one of the first laws ever written that establishes the broad national framework for protecting our environment. NEPA's basic policy is to assure that all branches of government give proper consideration to the environment prior to undertaking any major federal action that significantly affects the environment. NEPA requirements are invoked when airports, buildings, military complexes, highways, parkland purchases, and other federal activities are proposed. Environmental Assessments (EAs) and Environmental Impact Statements (EISs), which are assessments of the likelihood of impacts from alternative courses of action, are required from all Federal agencies and are the most visible NEPA requirements.

In 2019, the Coast Guard conducted market research which determined four storage bays could be constructed utilizing a tension membrane or relocatable fabric structure at an estimated cost of \$45 million. Site work and construction of the proposed hangar utilizes the same footprint of an eventual permanent hangar structure, taxiways, foundation slab, and utilities. This project is funded as Phase I hangar construction by the Consolidated Appropriations Act, 2021.

Coast Guard infrastructure projects executed during the last two to three years experienced 25-30 percent cost inflation above initial government estimates. These inflationary impacts necessitate an adjustment in scope. Available funding is estimated to support construction of two hangar bays. The Coast Guard intends to solicit a design-build contract for tension membrane or relocatable fabric structure hangar bays. The base bid is for a two-bay storage hangar. An optional bid item will be included to expand the base bid for additional maintenance space and functionality allowing for heavy maintenance in one of the hangar bays.

The anticipated award of the two-bay hangar contract is fourth quarter of FY 2024. The estimated contract completion date is fourth quarter of FY 2026.

In FY 2023, the Coast Guard was appropriated \$10 million for Air Station Barbers Point Phase 2 Facilities Improvement referenced in the UPL for 2023. Phase 2 improvements will support HC-130J propeller, engine, and sensor system maintenance and will augment construction improvements first initiated with the FY 2019 funding.

The Coast Guard intends to prioritize the following facility improvements for Phase 2 work:

- Enclosure of the current Aviation Materiel Storage building to provide climate controlled, secure storage of critical and sensitive aircraft parts;
- Rebuild the Ground Support Equipment Storage building to provide climate controlled, secure storage of equipment used to complete heavy maintenance; and
- Recapitalization of personnel support spaces to include locker rooms, restrooms, and administrative spaces which are currently located in temporary trailers.

Facility Requirements

The full facility requirement to operate four HC-130J and four MH-65E³ at Air Station Barbers Point includes a permanent two-bay HC-130J Maintenance Hangar, a permanent two-bay HC-130J Storage hangar, and renovation of the existing hangar as an enclosed, humidity-controlled facility designated for operation and maintenance of four MH-65E aircraft. Additionally, all personnel support, administration, operations, and command and control facilities are appropriately sized and included with permanent facilities. This equals approximately 137,000 gross square feet of additional hangar facilities for HC-130J functions including approximately 78,000 square feet of hangar bay, 15,000 square feet for maintenance shops, and 13,000 square feet for aviation storage and warehousing. The space estimate assumes renovation the existing hangar can fully support all Air Station Barbers Point's MH-65E and future MH-60T⁴ functions.

³ The MH-65 is a short-range recovery helicopter that performs search and rescue, law enforcement, and homeland security missions.

⁴ The MH-60T Jayhawk is a medium-range helicopter that performs search and rescue, law enforcement, and homeland security missions.

Air Station Barbers Point has a ~40,000-gallon fuel storage system that equates to a three-day supply. Current Coast Guard policy requires Air Stations to have a seven-day supply of fuel. The full facility requirement to operate four HC-130J and four MH-60T aircraft is a 100,000-gallon system.

Future MH-60T Transition

The Coast Guard anticipates MH-65E aircraft at Air Station Barbers Point will be replaced by MH-60T airframes in FY 2028. Air Station Barbers Point is expected to operate four MH-60T aircraft. A full Space Utilization Review of the existing hangar (Building 1790) is required to determine if adequate space is available to support MH-60T transition requirements. Facility requirements for the HC-130J remain the same. The transition to the MH-60T does not affect the HC-130J requirements for a new four-bay hangar facility.

Expected Cost of MH-60T Transition

The Coast Guard is in the process of refining this estimate as part of an ongoing design contract to replace a two-aircraft tension membrane or relocatable fabric structure with a permanent maintenance hangar and adjoined storage hangar including reconfiguration of Building 1790. Planning for a 100,000-gallon fuel system is not mature and accurate cost estimates are not yet available.

Extreme Weather Mitigation Strategies

During extreme weather events, the Coast Guard's rotary wing aircraft are relocated to a State-owned facility on the opposite side of Kalaeloa Airport. This facility is capable of fully enclosing the aircraft to provide protection from high winds and driven rain. Fixed wing aircraft are relocated as needed based on the size and path of storms. In the past, Air Station Barbers Point used landing sites on adjacent islands in the Hawaiian Chain as evacuation sites. Other evacuation locations include Midway Atoll and Air Station Sacramento, California.

The Coast Guard does not currently have any agreements to support sheltering aircraft of partner agencies.

Operational Risk Factors

The two most pressing risks facing Air Station Barbers Point if future construction phases are not realized include:

- Compared to the fleet average, aircraft at Air Station Barber's Point continue to incur two to three times the corrosion-related maintenance costs. This advanced corrosion rate has second order supply chain effects for, Outside of Continental United States units, resulting in repair delays due to part acquisition and increased needs for logistics flights to/from other Air Stations.
- Without a permanent facility to complete heavy maintenance, there are potential delays to HC-130J operations.

III. Conclusion

Air Station Barbers Point is currently the only Coast Guard Air Station in the Indo-Pacific region and is critical to fulfilling mission requirements in that theater of operations. The highly corrosive and occasionally extreme weather poses challenges to aircraft maintenance that can be overcome by providing hangar space for 100 percent of the airframes assigned. To accomplish this goal, the Coast Guard is navigating construction market conditions to efficiently utilize appropriated funding and maximize operational improvements provided to Air Station Barbers Point. Additional facilities offer much needed functions and hangar capacity that allow Coast Guard members assigned to Air Station Barbers Point continued successful mission execution. Continued support of these projects will help improve mission effectiveness and unit readiness.