Federal Aviation Administration Reliance on and Adoption of Environmental Impact Statement and Record of Decision for the Hermeus Special Flight Authorization to Conduct Testing of the Supersonic (Greater than Mach 1.0) Quarterhorse Mark 2.1 Unmanned Aircraft System Over Land at White Sands Missile Range, New Mexico

I. Introduction

This document serves as the Federal Aviation Administration's (FAA) reliance on and adoption of the Department of Army's[1] (Army) *Environmental Impact Statement for Development and Implementation of Range-Wide Mission and Major Capabilities at White Sands Missile Range (WSMR), New Mexico, March 2010*, which is the foundational document for the Army's Record of Environmental Consideration (REC) for the proposed action. The Hermeus Corporation (Hermeus) proposes to conduct testing of the supersonic (flight speeds greater than Mach 1.0) Quarterhorse Mark (Mk) 2.1 unmanned aircraft system (UAS) over land at WSMR. In a February 2026 memorandum, the Army's WSMR Environmental Division determined that the Range-Wide Environmental Impact Statement (EIS) was still valid and:

- covers both airspace use and also ground support services and incorporates the authority and operations of New Mexico Spaceport America (SA);
- provides a thorough and locally relevant analysis for the FAA's action including sensitive noise receptors, archaeological sites, natural resources, established recovery procedures, and hazardous waste management protocols unique to WSMR; and
- provides a regional dataset for noise and sonic booms that are relevant to WSMR airspace.

FAA's Reliance on Existing Documentation

U.S. Department of Transportation (DOT) Order 5610.1D, Section 18 and FAA Order 1050.1G Paragraph 3.2(a) indicates that the FAA may rely on any pre-existing EISA to a given project, or portion thereof, provided that the statement, or portion thereof meets the standards for an adequate statement under their procedures.

This document identifies the FAA's reliance on and adoption of the Army's EIS that covers the FAA's Major Federal Action, the issuance of a special flight authorization (SFA), which permits Hermeus' proposed action, which is described in the following[2]:

- Description of the Proposed Action and Alternatives (DOPAA) dated September 11, 2025;
- Hermeus Special Flight Authorization Application and the accompanying Hermeus SFA email dated January 12, 2026;
- White Sands Missile Range Hermeus Quarterhorse 2.1 Record of Environmental Consideration and Supplemental Information dated February 12, 2026;
- Memorandum for Hermeus Project National Environmental Policy Act (NEPA) Citation Considerations dated February 17, 2026
- Final EIS/Record of Decision for the Development and Implementation of Range-Wide Mission and Major Capabilities at WSMR March 2010; and

[1] Department of Army is one of three military departments (Army, Navy, and Air Force) that report to the Department of Defense.

[2] The supporting information that was used in the preparation of this document resides with the Army. For further information, please contact Ms. Deborah Nethers (Branch Chief, Customer Support; Environmental Division; Directorate Public Works; WSMR) at deborah.l.nethers.civ@army.mil

- Hermeus Environmental Review Interagency Coordination Emails between WSMR and FAA Environmental staff dated February 11-17, 2026.

II. Background

Hermeus is requesting the FAA issue a Special Flight Authorization (SFA) for civil operations that exceed Mach 1 speed.[3] The test flights will be performed within the supersonic flight test corridor over the WSMR complex.

The objective of the applicant is to test and evaluate flight capabilities of the unmanned remotely piloted Hermeus Quarterhorse Mk 2.1 aircraft. The aircraft weighs approximately 21,500 pounds (lbs.) at Operating Empty Weight (OEW) with no fuel and has a maximum takeoff weight of 30,000 lbs. The Mk 2.1 has a mid, swept compound delta wing with 3x elevons per wing, and a vertical stabilizer. Primary flight control surfaces are the elevons and rudder. Symmetric deflection of elevons provides pitch control and asymmetric deflections of elevons provide roll control.

White Sands Missile Range

WSMR is an Army military testing area and firing range located in New Mexico. Established in 1941 as the Alamogordo Bombing and Gunnery Range, WSMR is the largest military installation in the U.S. and encompasses nearly 3,200 square miles (approximately 2.2 million acres) of Army – restricted airspace, extending from the surface up to high altitudes. WSMR is located between Las Cruces, New Mexico to the west, Alamogordo, New Mexico to the east, and Chaparral, New Mexico and El Paso, Texas to the south. Nearby military bases include Holloman Air Force Base to the east and Fort Bliss to the south, making them contiguous areas for military testing.[4] WSMR supports the Department of Defense's three military departments: Army; Navy; and Air Force; as well as commercial and international users while conducting more than 3,000 tests annually.[5] This area is critical for missile testing and prohibits civilian aircraft and drone operations within WSMR to prevent hazards and accidents.[6]

New Mexico Spaceport Authority

The New Mexico Spaceport Authority (NMSA) is a non-governmental panel appointed by the governor of New Mexico, whose members represent the public sector in the development of and construction of SA, the world's first purpose-built commercial spaceport.[7] The mission of the NMSA is stipulated in the 2005 Spaceport Development Act.[8]

Spaceport America

Spaceport America is the world's first purpose-built commercial spaceport. Spaceport America is an active test facility and is closed to public access. Launches at the site are closed to public

[3] Hermeus submitted to FAA a 44807 Petition for Exemption and 927 waiver on July 23, 2025.
[4] Wikipedia, accessed February 18, 2026
[5] White Sands Missile Range website, https://home.army.mil/wsmr/, accessed February 18, 2026
[6] https://home.army.mil/wsmr/about#:~:text=WSMR%20encompasses%203%2C421%20square%20miles%20(roughly%20the,24%20hours%20a%20day%20from%20zero%20to; accessed February 20, 2026
[7] Wikipedia, accessed February 18, 2026
[8] https://www.spaceportamerica.com/about/; accessed February 18, 2026

viewing, although private tours of the facilities can be arranged in advance through the SA tour provider. Spaceport America is a FAA-licensed launch complex situated on 18,000 acres adjacent to and west of WSMR in New Mexico. It has 6,000 square miles of restricted airspace, and a 12,000 feet x 200 feet runway and vertical launch complexes. It is 4,600 feet above sea level. [9]

III. Regulatory Framework

For all civil aircraft, any operation that exceeds Mach 1 may be conducted only in compliance with a special flight authorization issued by the FAA to an operator in accordance with the requirements of 14 CFR 91.817-818, *Civil Aircraft Sonic Boom and Special Flight Authorization to Exceed Mach 1*. For the environmental findings, the FAA is required to consider the potential environmental impacts resulting from the issuance of an authorization for a particular flight area pursuant to the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C 4321 *et seq.*) as amended, DOT Order 5610.1D, FAA Order 1050.1G, and related Executive orders and guidance.

Both the Army and FAA must meet federal requirements before granting Hermeus' SFA. The Army needs to approve test conditions for Hermeus to conduct its requested overland supersonic flight testing within the WSMR complex. Such flight test operations must comply with the 2010 White Sands Missile Range EIS for development and implementation of range-wide mission and major capabilities. Use of restricted airspace and radar is covered in the EIS. Spaceport America is located under R-5111 A&B, and there is a memorandum of understanding between NMSA and WSMR. The WSMR Range-Wide EIS and Special Use Order 7400.8N describes how R-5111 A&B and R-5107 B would be used. This use is consistent with other test articles that operate in this airspace. The altitude and use of R-5107 B will be factors in mitigating potential impacts to protecting noise receptors on the ground.[10]

The Army granted approval of this action contingent upon Hermeus' compliance with a series of measures found in the mitigation measures of the 2010 WSMR Range-Wide EIS, the Requirements section of the WSMR Record of Environmental Consideration approved on January 30, 2026, and the Memorandum for Hermeus Project NEPA Citation Considerations from February 17, 2026.

The FAA needs to issue a Special Flight Authorization to Hermeus in accordance with 14 CFR 91.817-818 and all applicable laws, regulations, and agency guidance, including FAA Order 1050.1G, in order for Hermeus to begin the testing of its Quarterhorse Mk 2.1 aircraft.

IV. Proposed Action

The FAA proposes to grant Hermeus an SFA to exceed Mach 1.0 in accordance with 14 Code of Federal Regulations (CFR) 91.817-818. If the SFA is granted, Hermeus can perform a limited number of flights within the WSMR Restricted Zones R-5111 A&B and R-5107 B to test its Quarterhorse Mk 2.1 aircraft. R-5111 B extends from the surface up to 13,000 feet mean sea

[9] https://www.spaceportamerica.com/about/; access8, 2026
[10] https://home.army.mil/wsmr/about; accessed February 18, 2026

level (MSL); R-5111 A extends from 13,000 feet MSL to space; and R-5107 B extends from the surface to space.[11]

The purpose of the Proposed Action is to conduct overland supersonic flight testing of an experimental aircraft for the purposes of validating new and novel analytical data and wind tunnel testing results, proving airframe and engine technology and construction methods, and informing the development vehicle for aircraft Guidance, Navigation and Control laws and avionics integration.

The Proposed Action is needed to accelerate the commercial development of hypersonic aircraft and propulsion systems to support U.S. warfighter and national defense capabilities in the future. This commercial development is needed to advance technologies that could provide the Department of Defense with options for a variety of missions and improve strategic capabilities.

Ground operations, takeoffs, and landings of the Mk 2.1 would occur at WSMR and SA property.[12] All takeoffs and landings will occur during daylight hours. The Mk 2.1 flight profiles will originate and conclude at SA in southern New Mexico. Flights are planned to take off southbound on runway 16 and land northbound on runway 34. The specific flight paths related to the flight test campaign all remain inside R-5111 A&B and R-5107 B as shown on Figures 2 and 3 in the SFA application. The draft flight profiles are depicted in Figure 2 Mk 2.1 First Flight Profile and Figure 3 Mk 2.1 Supersonic Flight Profile. SA, in coordination with WSMR, will conduct range surveillance and evacuations (where applicable) to ensure the hazard areas are clear of non-essential personnel during all operations.

The supersonic flight profiles will begin and conclude on the west side of the San Andres Mountains. The aircraft will depart southbound and enter a racetrack pattern in R-5111 A&B before turning eastbound and entering R-5107 B. The aircraft will execute a north/south flow in R-5107 B before returning to R-5111 A&B to join a final approach track to land northbound at SA. The extent of the flights will be contained within R-5111 A & B and R-5107 B. All supersonic operations will be conducted in the bounds of R-5107 B and over Army-owned land.

Per Hermeus' January 2026 SFA application, there will be five baseline sorties; two contingency sorties; seven flights total; and seven flight hours total associated with this test. This involves a maximum of seven (7) supersonic aircraft flight events conducted above 30,000 feet MSL within existing, previously approved special use airspace, as described below:

> Operation A: Hermeus Mk 2.1 Flight Demonstration at WSMR complex.
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> Demonstrate vehicle control on the ground at speeds between 0 knots up to rotation speed. The vehicle will taxi on SA runway.
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> Operation B: Hermeus Mk 2.1 Flight Demonstration over WSMR complex.
>
> Demonstrate airborne capabilities from takeoff, cruise and landing, evaluating basic controllability of the aircraft during a racetrack flight profile. The vehicle will launch

[11] https://home.army.mil/wsmr/about; accessed February 18, 2026

[12] Due to potential operational and scheduling challenges at EAFB, ground operations, takeoffs and landings may occur at Mojave Air and Space Port. Operations outside of EAFB would be subsonic.

heading south from SA's runway, fly straight (over WSMR complex and Bureau of Land Management (BLM) property) for approximately 14 nautical miles (nm) with a maximum altitude of 6,000 ft Above Ground Level (AGL), then turn 90° east and enter a north-south racetrack pattern. After the desired number of laps are performed, the vehicle will use one of two landing paths to land on the SA northbound runway.

Operation C: Hermeus Mk 2.1 Subsonic Envelope Expansion

Demonstrate airborne capabilities during transonic flight. The vehicle will launch heading south from SA's runway, turn east toward R-5107 B then climb to approximately 35,000 feet MSL. The aircraft will then turn 90° left and enter a north-south racetrack pattern. The aircraft will accelerate to transonic speed staying less than Mach 1 while northbound, then turn south in a left-hand turn. The vehicle uses one of two landing paths to land on the SA northbound runway from the south.

Operation D: Hermeus Mk 2.1 Supersonic Envelope Expansion

Demonstrate airborne capabilities during transonic flight. The vehicle will launch heading south from SA's runway, turn east toward R-5107 B then climb to approximately 35,000 feet MSL. The aircraft will then turn 90° left and enter a north-south racetrack pattern. The aircraft will accelerate to supersonic speed while northbound, then turn south in a left-hand turn. The vehicle uses one of two landing paths to land on the SA northbound runway from the south.

Aircraft conducting the flights would generate noise levels less than that of an F-16. The Proposed Action does not require modification of existing airspace designations, altitude floors, or supersonic corridors previously approved by the FAA.

No construction or other ground disturbance or infrastructure improvements are required to conduct this action. It is anticipated that pre-flight and post-flight ground operations would occur at Spaceport America facilities including hangars/shelters, taxiways, and runways. Hazardous operations would be conducted with adequate clear areas to the public and would only allow mission-essential personnel within the hazard zone when conducted. Existing infrastructure would be used to conduct all ground operations related to this action.

V. Environmental Analysis

A. Noise

Noise impacts at WSMR are described in detail in the 2010 WSMR Range-Wide EIS and are incorporated by reference as allowed under FAA NEPA Order 1050.1G, Section § 3.5 Incorporation.

The FAA's significance threshold for noise is triggered when an action would increase noise by DNL 1.5 decibel (dB) or more for a noise sensitive area that is exposed to noise at or above the day night average sound level (DNL) 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe (see FAA Order 1050.1G, Appendix C, C-1.4. Environmental Consequences). Contour area increases of less than 17% as calculated by the Area Equivalent Method (AEM) would show that there are no significant impacts on a noise-sensitive area, while an increase in area of 17% or greater would indicate noise levels have the potential to increase by 1.5 dB or more, and a study based on a more detailed noise model

(e.g., Aviation Environmental Design Tool (AEDT)) should be conducted. Prior NEPA analyses concluded that noise from F-16 sorties in the White Sands Missile Range did not exceed 45 dB CDNL.[13] Quantitative sound exposure analysis demonstrates that the addition of seven F-16-equivalent supersonic events would increase cumulative C-weighted Sound Exposure Level by approximately 0.003 dB, a change well below perceptibility and regulatory significance thresholds. The altitude and use of R-5107 B will be factors in mitigating potential impacts to protecting noise sensitive areas on the ground. If there are any mishaps, WMSR Test Center SOPS will apply for recovery.

B. Aviation Emissions and Air Quality

The air quality at WSMR is described in detail in the 2010 WSMR Range-Wide EIS and is incorporated by reference as allowed under FAA NEPA Order 1050.1G, Section § 3.5 Incorporation.

The entire WSMR installation is in attainment for all the New Mexico and National Ambient Air Quality Standards (NAAQS). The only nonattainment area in New Mexico is located 17 miles south of WSMR's southernmost boundary at Anthony in Dona Ana County, which is classified as moderate nonattainment for $PM_{10.}$[14] WSMR maintains its own air quality permits and adheres to federal and state regulations to ensure its testing and development missions do not lead to significant environmental impacts.[15]

The proposed action emissions from various sources would be temporary, lasting approximately 18 months. A short-term degradation in air quality would be experienced during maintenance and operational activities. Temporary increases in carbon monoxide, nitrogen oxides, particulate matter, sulfur dioxide, and volatile organic compounds emissions would cease upon completion of the activity. In 2023, air calculations were run for up to 40 sorties and routine ground tests of Hermeus drone, T-38, F-16, F-15, F-18 and up to 2000 miles per day for 90 days and 100 extra personnel to complete travel activities under the proposed action. In 2025, the Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with their action, including estimating Greenhouse Gas (GHG) emissions. ACAM was run for each engine model for up to 60 sorties and routine ground tests of F100-229 Engine and J85-GE-21 Engine, four sorties and routine ground tests of C-12 aircraft, 100 F-16D taxi tests, three generators, and up to 2000 sq. ft. of grading to be completed under the proposed action. Emissions produced from the proposed action are presented in Tables 2 through 5. Under the No Action Alternative, the proposed action would not be implemented; thus, no air quality resources would be impacted.

C. Biological Resources

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[13] U.S. Air Force, Combat Air Forces Adversary Air EA (June 2020), p. 3-31. Document available via Holloman AFB Environmental Management website; cited in Hermeus SFA application, January 12, 2026

[14] 2020 Final Environmental Assessment for Water Reclamation and Biosolids Composting, White Sands Missile Range, New Mexico; accessed February 18, 2026 at https://home.army.mil/wsmr/application/files/6816/2742/0748/WaterReclamBiosolidCompFNSI_EA-2020.pdf

[15] New Mexico Environment Department; White Sands Missile Range RCRA Permit No. NM2750211235; December 2009; accessed February 18, 2026 at https://www.env.nm.gov/wp-content/uploads/sites/12/2019/10/FINAL_WSMR_APPENDICES_12-2009.pdf#:~:text=The%20New%20Mexico%20desert%20was%20selected%20to,(NASA)%2C%20other%20government%20agencies%2C%20and%20foreign%20allies.

Biological resources at WSMR are described in detail in the 2010 WSMR Range-Wide EIS and are incorporated by reference as allowed under FAA NEPA Order 1050.1G, Section § 3.5 Incorporation.

A nesting migratory bird survey is not required. There is no Limited Use nor Essential habitat for White Sands pupfish at the site. The flight path profile and map show the aircraft passing over and/or near eagle nesting territories in the San Andres mountains and Oscura Mountains on WSMR. However, WSMR environmental staff do not believe at these elevations that the aircraft has potential to get within 400m of an active eagle nest (which is the WSMR standard buffer for aircraft). The sonic booms may startle eagles, but staff does not expect this to cause a take. WSMR eagle biologists may have an opportunity to observe eagle reactions to test flights to document their reaction to demonstrate to the U.S. Fish & Wildlife Service that test operations do not cause a take.

D. Cultural Resources

Cultural resources at WSMR are described in detail in the 2010 WSMR Range-Wide EIS and are incorporated by reference as allowed under FAA NEPA Order 1050.1G, Section § 3.5 Incorporation.

WSMR manages cultural resources in accordance with various Federal and State laws and regulations, and Army policies and regulations which have been established for the management of cultural resources. Of particular relevance is Section 106 of the National Historic Preservation Act (NHPA) of 1966 (16 USC 470), as amended, which requires Federal agencies to consider the effects of their undertakings on historic properties.
WSMR manages cultural resources on approximately 2.2 million acres of land. This includes 5,158 identified archaeological sites, buildings and structures, and many more resources which have yet to be recorded.

Currently, there are two properties listed on the National Register of Historic Places. One of the listed properties is also a National Historic Landmark: The Trinity Site, where the world's first atomic bomb was detonated on July 16, 1945 and was listed on the NRHP in 1966. The second is Launch Complex 33, where German V-2 rocket technology was tested after the close of World War II was listed in 1985.

The proposed undertaking is a type of activity that does not have the potential to cause effects on historic properties pursuant to Section 800.3(a)(1) of the National Historic Preservation Act.

E. Hazardous Materials/Waste

Hazardous materials and waste at WSMR are described in detail in the 2010 WSMR Range-Wide EIS and are incorporated by reference as allowed under FAA NEPA Order 1050.1G, Section § 3.5 Incorporation.

Hazardous operations would be conducted with adequate clear areas to the public and would only allow mission-essential personnel within the hazard zone when conducted. Existing infrastructure would be used to conduct all ground operations related to this action. SA, in coordination with WSMR, will conduct range surveillance and evacuations (where applicable) to ensure the hazard areas are clear of non-essential personnel during all operations.

WSMR has established programs that control the procurement, storage, use, and disposal of hazardous materials and wastes, which work to minimize risks and costs associated with the

cleanup of spills and hazardous waste generation and disposal. Hazardous materials (HM) are authorized and managed in compliance with applicable sections of Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention, and WSMR HM policy. All HM must be authorized by WSMR Environmental Management prior to being brought on the Range, are documented on the Hazardous Materials Usage Tracking Form, and are tracked in EESOH-MIS. Solid and hazardous wastes (HW) are managed in compliance with the following: Army Environmental Compliance and Pollution Prevention; the WSMR Hazardous Waste Management Plan (HWMP); and the WSMR Integrated Solid Waste Management Plan. Waste will be diverted from the landfill and recycled. If any material or waste cannot be diverted, it will be disposed in accordance with Federal, state, and WSMR regulations. It is anticipated there will be no HM, HW, nor solid waste generated. Therefore, no HM, HW, nor solid waste issues are anticipated with the Proposed Action.

VI. Decision

In accordance with NEPA (42 U.S.C. 4321 *et seq*.) as amended, DOT Order 5610.1D, and FAA Order 1050.1G, the FAA hereby finds that the Army's *Environmental Impact Statement for Development and Implementation of Range-Wide Mission and Major Capabilities at White Sands Missile Range (WSMR), New Mexico, March 2010* remain valid and e, and the agency's reliance on it, the Record of Decision (ROD) and REC determinations are otherwise appropriate to fulfill NEPA's analytic requirements for the action at hand. Accordingly, FAA hereby relies on and adopts the Army's environmental determinations that the Final EIS/ROD and REC covers the scope of the proposed action and does not result in any significant new circumstances in the sections of the Army's Final EIS/ROD that are relevant to the proposed action.

After careful and thorough consideration of the facts contained herein, the undersigned finds that the proposed action is consistent with existing national environmental policies and objectives as set forth in Section 101(a) of the NEPA, as amended, and other applicable environmental requirements, and will not significantly affect the quality of the human environment or otherwise include any condition requiring consultation pursuant to Section 102(2)(C) of NEPA.

This decision signifies that applicable Federal environmental requirements relating to the proposed action have been met. The decision enables the FAA to issue the Special Flight Authorization to Hermeus to conduct civil operations that exceed Mach 1 speed at WSMR and SA property.

Name: Donald S. Scata Jr. Title Deputy Director FAA Office of Environment and Energy

Responsible FAA Official

Signature DONALD S SCATA JR Digitally signed by DONALD S SCATA JR Date: 2026.03.27 14:58:52 -04'00' Date 3/27/2026