

**FINDING OF NO SIGNIFICANT IMPACT
CONSTRUCTION AND OPERATION OF AN INSTRUMENTATION TOWER
WALLOPS FLIGHT FACILITY, VIRGINIA**

Pursuant to the Council on Environmental Quality regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA), Title 23 United States Code § 327; Title 40 of the Code of Federal Regulations (CFR) §§ 1500-1508; and the United States Air Force (USAF) Environmental Impact Analysis Process (EIAP), 32 CFR § 989, the USAF, as the lead agency, has prepared an Environmental Assessment (EA) to identify and evaluate potential effects of constructing and operating an instrumentation tower on Wallops Island at the National Aeronautics and Space Administration (NASA) Goddard Space Flight Center's Wallops Flight Facility (WFF), Accomack County, Virginia. As the federal landowner, NASA was a cooperating agency on this action, ensuring analysis complied with their NEPA regulations as codified under 14 CFR § 1216.3 and within the NASA Procedural Requirements 8580.1A for NEPA Management Requirements. Because the tower would be used to conduct testing in collaboration with other Department of Defense (DoD) agencies, the United States Navy also participated in development of the EA.

Purpose and Need (EA §§ 1.3 and 1.4, pages 1-1 to 1-3): The purpose of the Proposed Action is to enhance current DoD research, development, test, and evaluation (RDT&E) support capabilities for Unmanned Aerial Systems (UAS) and extend communication coverage in the Mid-Atlantic operating area, allowing for refined communications infrastructure. The need for the action is to meet current and emerging DoD requirements associated with the RDT&E of UAS, which necessitate a more robust communications system that covers a larger area and extends farther offshore than existing systems can meet. Extending the range of communication coverage farther offshore will further reduce the risk of crashes or other incidents over land and the corresponding risks to human safety and personal property.

DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

Selection Criteria for Alternative Sites (EA § 2.1, pages 2-1 to 2-4): To be considered a reasonable alternative, the location for the proposed instrumentation tower had to meet the following criteria:

- Be within 10 nautical miles of the Atlantic coast in the region of southern Maryland or northern Virginia, with sites closer to the coast preferred;
- Sited on a guarded military or other government-owned facility to meet security requirements;
- Have access to existing electrical, communications and transportation infrastructure, which does not require substantial site preparation and/or infrastructure investment;
- Placed within an open area (minimum of 25 acres) that accommodates approximately 590-foot radius footprint;
- Be outside an established or proposed aircraft flight corridor; and
- Result in no or manageable impacts to NASA's and/or other DoD missions adjacent to or near the tower site.

Initially the USAF considered a range of potential sites including locations in Laurel, Delaware; Ocean City, Maryland; Salisbury, Maryland; Westover, Maryland; Chincoteague Island, Virginia; and Accomack, Virginia. Site investigations showed these areas would not provide the required open area with existing electrical and communications infrastructure or would have required significant site preparation. Ultimately, sites at WFF ranked the highest and were carried forward for further analysis. Sixteen locations within WFF (EA Figure 2-1, page 2-3) were reviewed for mission operations, range safety, constructability, and natural resources compatibility (EA 2.1.1.2, page 2-2). Mainland WFF and three locations on north Wallops Island encroached upon approach surfaces associated with the Main

Base airfield. Several of the sites would have rendered NASA's existing launch pads unusable for future missions or would have caused interference with existing surface combat systems center (SCSC) radar systems. Two other locations would have precluded the release of mission-critical NASA weather balloons from a neighboring facility and had potential road safety concerns with respect to icing during winter months. A site on south Wallops Island, while possibly compatible with WFF's missions, had limited upland area on which to site the proposed tower and would have had increased susceptibility to storm damage. Based on the site selection review process, the USAF identified two alternatives on Mid-Wallops Island that best fulfill the purpose and need: the Proposed Action Alternative located northwest of Building X-015 and Alternative 1, located northwest of Building X-079 (EA Figure 2-2, page 2-4). Both locations are in a coastal zone setting and as such fall within a floodplain. Because USAF mission requires the tower to be within 10 nautical miles of the Atlantic coast, there is no practicable alternative other than to site within a floodplain on Wallops Island.

Proposed Action Alternative - Building X-015 Site (EA § 2.3.1, page 2-14): Under the Proposed Action Alternative, the USAF would build, operate, and maintain a 750-foot, guyed instrumentation tower on approximately 40-acres northwest of Building X-015, located within the boundary of WFF in Accomack County, Virginia (EA Figure 2-3, page 2-7). Tower operations would not impede NASA's use of this facility. As the federal landowner, NASA would grant the USAF authorization to build and operate the tower on NASA's property. The USAF, NASA, Naval Air Warfare Center – Aircraft Division, and Naval Sea Systems Command would install, operate, and maintain equipment such as ultra-high frequency/very high frequency radios, telemetry dishes, global positioning system antennas, spectrum-monitoring antennas, a flight termination system, and meteorological instrumentation on the tower. As part of the action, an existing NASA telemetry dish would be relocated to Mainland WFF or Wallops Island in order to minimize operational impacts between the two structures. NASA would install the approximately two-foot diameter telemetry dish on existing infrastructure within the boundaries of WFF to ensure its continued operation.

The tower would be a galvanized steel, three-sided lattice structure approximately 42 inches wide on each side with up to 12 steel guy wires located on three sides to provide structural support. The guy wires would be installed along three radii from the tower at angles of 120 degrees from each other and anchored in three groups. The tower base would consist of a square concrete slab measuring approximately 12 feet on each side, for a total surface area of 144 square feet (approximately 0.003 acre). The nine anchor points for the guy wires would consist either of concrete slabs measuring 14 feet by 14 feet by 5 feet (approximately 0.04 acre) or helical piles. All structural components would be pile-supported and driven or cast in place to a depth of at least 75 feet. One or more gravel-topped roads would be built from an existing nearby paved road or parking lot to the base of the tower to provide access for service personnel, vehicles, and equipment.

Two small prefabricated structures would be installed near the base of the tower to house equipment associated with the tower's operation and maintenance. Required utility services would connect to existing infrastructure on Wallops Island. A 30-kilowatt propane-fueled generator and associated 500-gallon above-ground fuel tank would be installed to provide electricity in the event of power outages. The prefabricated structures and equipment will be installed on elevated platforms at least 11 feet above mean sea level (AMSL) to mitigate potential flooding during storm events in accordance with established WFF management policies and engineering practices that account for high winds and occasional storm-induced flooding.

The design, construction, installation, and operation of the proposed tower will be coordinated with WFF Test Director and Spectrum Manager and comply with the frequency utilization and management policies and procedures applicable to all WFF range user activities as set forth in the *Wallops Flight Facility Frequency Utilization Management Handbook*. Routine tower maintenance would include tensioning the

guy wires and replacing electronics. Site maintenance could include maintaining vegetation surrounding the tower and anchor points as well as periodic top-dressing of gravel access roads. A 20-year operational period beginning in 2019 is anticipated for the proposed tower. At the end of this time, the USAF would re-evaluate the need to continue operations. If it is determined the tower is no longer needed, it would be dismantled, recycled, and/or disposed of in accordance with applicable laws and regulations.

Design Features to Mitigate Avian Impacts (EA § 2.2.1, pages 2-9 to 2-13): The USAF recognizes implementation of the project has the potential to adversely impact species of migratory and resident birds occurring at and in the vicinity of Wallops Island. The USAF, in coordination with NASA, has incorporated numerous mitigation measures into the tower project to minimize avian impacts, which are based on United States Fish and Wildlife Service (USFWS) ‘*Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning*’ dated August 2016 (EA Appendix C). In addition, the USAF prepared an *Avifauna and Protected Species Mitigation and Monitoring Plan* (MMP) to guide implementation. Steps include (1) Collocating communication equipment on a single tower; (2) Placing the tower on a previously developed site; (3) Scheduling vegetation removal outside peak bird breeding season, which is between March 15 to August 15; (4) Incorporating bird diverters every 30 feet along the inner and outer most guys; and (5) Limiting tower illumination to the minimum amount required by Federal Aviation Administration (FAA) for a type G3 tower, with medium intensity red beacons operating at 20 to 40 flashes per minute (fpm) for nighttime lighting and high intensity white beacons operating at 40 fpm for day time lighting. Lighting on ground-level support structures and equipment will be down-shielded and motion-activated to the greatest extent practicable to minimize impacts on wildlife. A complete listing of mitigating design features is found within EA § 2.2.1 on pages 2-10 to 2-12 and is incorporated by reference into this document.

Avifauna and Protected Avian Species Mitigation and Monitoring Plan (EA § 2.2.2, page 2-13): The USAF and NASA consulted with USFWS and the Virginia Department of Game and Inland Fisheries (VDGIF) to develop an *Avifauna and Protected Species MMP*, which incorporates monitoring principles to continually evaluate the effectiveness of each mitigation measure. Monitoring will begin once the tower is erected and will occur four days per week, year-round for a minimum of two years. The USAF, in coordination with NASA, will conduct avian mortality searches along established transects and periodically provide these reports to USFWS and VDGIF. Through these consultations and based on the outcome of the monitoring results, the USAF and NASA will determine if mitigation and monitoring methods should be modified.

In response to comments from USFWS and VDGIF, the USAF and NASA will actively manage *Phragmites australis* (*Phragmites*), a highly opportunistic, invasive plant species that grows in dense stands up to 15 feet tall, obscuring visibility and impeding monitoring search access in areas where it occurs. As *Phragmites* covers up to 70 percent of each alternative site, management of the plant will improve the efficiency and accuracy of researchers conducting avian monitoring activities in accordance with the *Avifauna and Protected Species MMP*. Methods to manage *Phragmites* will include a combination of controlled burning, application of herbicides, and mowing as specified in NASA’s *Wallops Island Phragmites Control Plan*.

Alternative 1 – Building X-079 Site (EA § 2.3.2, pages 2-14 to 2-15): The USAF identified a second alternative, which also fulfilled the purpose and need. Under Alternative 1, the instrumentation tower would be installed on approximately 40 acres north of Building X-079 following authorization by NASA. Both alternatives, less than 0.5 miles from each other, are located on mid-Wallops Island on previously disturbed but currently undeveloped land and are virtually identical in location, topography, ecology, existing use, and other physical characteristics. All avian mitigations and monitoring methods as identified with the Proposed Action Alternative will be required for Alternative 1.

No Action Alternative (EA § 2.3.3, page 2-15): Under the No Action Alternative, the USAF would not build, operate, or maintain the proposed 750-foot tall, guyed instrumentation tower on Wallops Island, and NASA would not authorize use of the property to the USAF for such a tower. Existing conditions at Wallops Island would continue. The No Action Alternative has been analyzed in accordance with 40 CFR § 1501.14 to provide a baseline against which impacts of each alternative can be meaningfully compared.

ENVIRONMENTAL CONSEQUENCES

Environmental analysis focused on the following resource areas: water resources, coastal zone management, hazardous substances, biological resources, cultural resources, and visual quality/aesthetics. Environmental impacts would be similar for each resource under both the Proposed Action Alternative and Alternative 1 unless otherwise noted. The relocation of the telemetry dish under the Proposed Action Alternative will have no impacts, as it would be relocated and installed on existing infrastructure in a previously developed area of WFF and would not require the construction of new or additional facilities, or the expansion of existing facilities. Its appearance is consistent with other facilities and equipment that support WFF missions and its tenants. The small size makes it virtually indistinguishable when observed from a distance.

The following resources were dismissed from further analysis within the EA because implementation of the tower would have no measurable effect. These resources included air quality, greenhouse gases and climate change; agriculture/prime farmland; mineral/energy resources; groundwater; noise; geology/soils; marine wildlife and terrestrial vegetation; health/safety; land use; transportation; environmental justice; employment/income; public services; utilities; and recreation. Table 3-1 on pages 3-1 to 3-4 of the EA provides the rationale for dismissal.

Water Resources (EA § 3.1.1.3, pages 3-5 to 3-10): More than 2,500 acres of estuarine emergent and non-tidal wetlands occur on Wallops Island. Both alternatives have jurisdictional wetlands within and adjacent to their construction footprint. As shown on Figure 3-1, on page 3-6 of the EA, the tower base, guy wire termini, and associated ground-level support structures under the Proposed Action Alternative would be located in areas where wetlands are not present; however, it is anticipated that approximately 0.03 acre of wetland will be impacted from construction-related disturbance during installation of the southernmost intermediate anchor point. Alternative 1 will disturb a larger area of wetlands than the Proposed Action Alternative (EA Figure 3-2, page 3-7). Under Alternative 1, approximately 0.3 acre of wetlands will be temporary impacted and, once construction is completed, approximately 0.06 acre of wetlands will be permanently impacted from the three anchor points, prefabricated structures, the propane tank, and a gravel access road. The extent of wetland impacts, for either alternative, will be determined during the formal engineering design of the proposed tower. In the event wetland disturbance is required, the USAF will obtain permits from the United States Army Corps of Engineers (USACE), Virginia Department of Environmental Quality (VDEQ), and Accomack County Wetland Board to address impacts and mitigation requirements, as applicable. Adherence to avoidance, compensation, and/or mitigation measures specified in applicable federal and/or state permit(s) during and following the project's construction phase will ensure impacts on wetlands and associated submerged aquatic resources remain negligible. The USAF's contractor will also implement and adhere to WFF's *Wallops Island Phragmites Control Plan* to prevent the introduction of seeds and rhizomes of the invasive common reed to areas of WFF where the plant is not present. Impacts to wetlands from implementation of the Proposed Action Alternative or Alternative 1 will be minimal in the context of overall wetlands on and in the vicinity of Wallops Island. Similarly, the project would have no or minimal impacts on surface or groundwater hydrology, as the majority of the proposed site will remain in an undisturbed and impermeable condition. The USAF has identified the Proposed Action Alternative as their preferred

alternative, in part, since implementation would avoid jurisdictional wetlands to the maximum extent possible.

As part of the Virginia Barrier Islands, Wallops Island is located within a 100-year floodplain. Under both alternatives, the tower will be built entirely within the 100-year floodplain. All supporting equipment will be elevated to at least 11 feet AMSL in accordance with established WFF management guidelines. While the concrete tower base and anchor point slabs would prevent the percolation of flood waters into underlying soils, this additional quantity of impermeable surface on the proposed project site (approximately 0.04 acre) would be minimal in the context of permeable area that would remain on and adjacent to either of the 40-acre sites. The functionality of the floodplain on Wallops Island, provided both by the wetlands and the island itself, would not be substantially reduced since the footprint of the proposed tower and its anchor points are relatively small. There are no other practicable alternatives available other than to build and operate within the floodplain and wetland areas. Both alternatives incorporate the best-available scientific data and methods to integrate current and future flooding predictions. Based on the distance between each site and the Atlantic Ocean, neither alternative is likely to experience permanent inundation from rising sea level during the 20-year service life of the project.

Coastal Zone Management (EA § 3.1.2.3, page 3-10): The USAF determined the Proposed Action Alternative would be consistent to the maximum extent practicable with the enforceable policies of Virginia's Coastal Zone Management (CZM) Program. In a letter dated September 1, 2017, VDEQ concurred with the determination, provided all applicable permits and approvals are obtained. In addition, USAF and NASA consulted with USFWS and VDGIF based on recommendations within VDEQ's CZM concurrence letter with respect to the tower project and the *Avifauna and Protected Avian Species MMP*. Copies of the Federal Consistency Determination, along with VDEQ's response, and correspondence from USFWS and VDGIF are included in Appendix A of the EA.

Hazardous Substances (EA § 3.1.3.3, pages 3-12 to 3-13): Short-term and long-term impacts from hazardous materials and wastes during the implementation of the tower would be negligible. The presence of former environmental restoration sites adjacent to the Proposed Action Alternative site would have no impact on the construction and operation of the tower, as all restoration activities have been completed and closure of the sites has been granted by applicable federal and state regulatory agencies. In addition, construction activities associated with the tower would not occur in these areas. Construction workers will comply with all applicable established NASA policies/procedures and immediately halt work and contact the WFF Safety and Environmental Offices in the event workers encounter evidence of potential environmental contamination or munitions and explosives of concern. Construction will not resume until the area is deemed safe by the WFF Safety Office.

Hazardous substances used during construction activities would be used in accordance with their label directions and requirements set forth in applicable safety data sheets (SDS). Such materials will be used by authorized personnel and will be secured in a hazardous materials locker or similar storage cabinet when not in use. All such materials will be used and disposed of in accordance with Goddard Procedural Requirement (GPR) 8500.3, *Waste Management*, applicable label instructions, and SDS requirements. Site-specific measures will be implemented for vehicle and equipment fueling and maintenance, as well as spill prevention and control measures as specified in the *WFF Integrated Contingency Plan*. Pesticides would be applied on the site to manage insect populations and herbicides would likely be applied to manage vegetation around the tower base, ground-level support equipment, avian mortality search transects, and under the guy wires. All such substances will be applied by authorized NASA personnel or licensed contractors in accordance with applicable label directions and regulatory requirements, will be mixed off-site prior to application, and will be stored off-site when not in use. During the proposed tower's operational phase, 500 gallons of propane would be stored in a tank on the site to operate the emergency backup generator during power outages. The USAF would develop task-

specific work instructions to ensure the elevated tank is filled and maintained in accordance with industry standards. Hazardous wastes generated during the project's construction and operational phases will be managed and disposed of in accordance with GPR 8500.3, *Waste Management* and all other applicable NASA, federal, and state regulations.

Avifauna - Common Bird Species (EA § 3.2.1.3, pages 3-21 to 3-24): Construction and operation of the instrumentation tower could result in further loss or fragmentation of habitat for avian species available at and in the vicinity of the alternative sites. However, the quantity of habitat potentially available on the sites is small in the context of habitat provided in other areas on and near Wallops Island. Furthermore, the sites are previously disturbed, overgrown with *Phragmites*, or periodically maintained through trimming and mowing of vegetation, and adjacent to existing development on Wallops Island. Thus, available habitat on the sites is of low quality, and any fragmentation or loss of such habitat resulting from the implementation of the tower would be negligible.

The tower would also pose a moderate risk of collision to some avian species and a low risk of collision to other species occurring at or in the vicinity of Wallops Island. Waterfowl, shorebirds, and land bird species would have the potential to collide with the tower and its associated guy wires; refer to Table 3-2 on page 3-23 of the EA for risk level categories for various bird species. To varying degrees, the risk of collision by birds potentially posed by the tower will be reduced with appropriate mitigation as described in the *Avifauna and Protected Species MMP*. As part of this plan, the USAF will incorporate measures to minimize effects on avian species such as minimizing tower lighting to the extent possible in accordance with FAA requirements, limiting nighttime lighting to medium intensity flashing red beacons operating at 20 to 40 fpm, and installing daytime visual markers and/or bird diverters on associated guy wires. During tower operations, the USAF, in coordination with NASA, has committed to monitoring post construction avian fatalities for at least two years. In addition, the USAF and NASA will permit researchers from other agencies and/or institutions to conduct additional avian monitoring as practicable and in accordance with facility security policies. Section 4 of the *Avifauna and Protected Species MMP* lists each mitigation element and Section 5 fully discusses the monitoring methods to be performed.

Special Status Species (EA § 3.2.2.3, pages 3-33 to 3-36): As described for avifauna, implementation of the tower would have negligible effects on the loss and/or fragmentation of habitat for special status species. Implementation of the tower would have no impacts on areas providing known nesting or foraging habitat for the federally threatened piping plover and rufa red knot, as no activities associated with the tower would occur in such areas. Though unlikely, the tower would have potential to affect individual piping plovers and rufa red knots while in flight as a result of possible collision with the structure and associated guy wires. The rate of such collisions could increase as a result of poor weather or other conditions of reduced visibility; flocking behavior by the birds; and/or from increased prevalence of the birds at Wallops Island during migration periods.

The tower would generally pose the same risks of collisions to Birds of Conservation Concern (BCC) as described for common species of birds. Risks would vary from low to high depending on species (EA Table 3-5, page 3-34). Adherence to the *Avifauna and Protected Avian Species MMP* will minimize effects on special status species of birds to the greatest extent possible.

Accomack County is within range of the northern long-eared bat, a federally-listed threatened species. However, acoustic bat surveys conducted within the marshes on Wallops Island and between the island and Mainland in 2008 determined a low probability for the presence of northern-long eared bats. There have been no documented trees within the area, which provide roosting and/or suitable winter habitat for this species. Implementation of the *Avifauna and Protected Species MMP* will ensure impacts to the bats are minimal since vegetation removal during the summer will be prohibited.

The USAF and NASA consulted with USFWS in accordance with Section 7 of the Endangered Species Act concerning effects to federally threatened bird species and the federally-listed northern long-eared bat potentially resulting from the tower. In April 2017, the USFWS concurred with the determination the tower operations may affect, but is not likely to adversely affect, rufa red knots, piping plovers, or northern long-eared bats (EA Appendix A, pages A-8 to A-18). In addition USFWS and VDGIF provided concurrence on September 14 and 26, 2017, respectively, on the *Avifauna and Protected Avian Species MMP* developed for this action.

Cultural Resources (EA § 3.3.1.3, pages 3-40 to 3-41): Both alternative sites are located in areas of Wallops Island modeled as having low sensitivity for prehistoric and historic archaeological sites. No NRHP-listed properties, eligible properties, and/or historic districts were identified within the area of potential effects as evaluated in the 2016 *Wallops Island Tower Cultural Resource Analysis* and 2017 *Phase II - Cultural Resource Analysis* (Appendix A, pages A-29 to A-126). Based on this information, the USAF determined the implementation of Proposed Action Alternative and Alternative 1 will not adversely affect cultural resources. On September 8, 2017, Virginia State Historic Preservation Officer (SHPO) concurred with the USAF that the tower project will have “no adverse effect on historic resources” (Appendix A, page A-31). In the event previously unknown archaeological artifacts or human remains are encountered during ground-disturbing activities, the procedures established in the 2014 *Programmatic Agreement for the Management of Cultural Resources at NASA WFF* will be followed; notably, work will stop immediately and the WFF Cultural Resource Manager will consult with the Virginia SHPO to: (1) Determine the significance of the resource; (2) Evaluate the effects of the undertaking on the resource; and (3) Identify the appropriate avoidance or mitigation measures.

No effects on traditional cultural resources are anticipated to result with implementation of the tower, as no such resources are known to occur on Wallops Island. The USAF has consulted with Native American tribes with cultural or historic ties to Wallops Island and Accomack County. The Catawba Nation informed the USAF it has no immediate concerns with regard to traditional cultural properties, sacred sites, or Native American archaeological sites within the boundaries of the proposed project areas (Appendix A, page A-32). The Catawba Nation requested it be notified if Native American artifacts and/or human remains are located during ground-disturbing activities. To date, no responses from the Pocomoke Indian Nation and the Pamunkey Indian Tribe were received.

Visual Quality and Aesthetics (EA § 3.3.2.3, pages 3-45 to 3-47): The tower would have negligible short-term impacts and minor long-term impacts on visual quality and aesthetics on and in the vicinity of Wallops Island. During construction, the appearance of either alternative site will be characterized by construction vehicles and equipment, areas of cleared vegetation and disturbed soils, and temporary fencing to restrict access to the site by unauthorized personnel. The appearance of the project site during construction would be similar to that of other construction projects and similar activities occurring with relative frequency on Wallops Island, and would not be particularly unusual to personnel and other observers who work at or frequently visit the island. Visual conditions on the project site would return to a pre-project condition following the completion of construction.

Once complete, the proposed tower will be the tallest structure visible in comparison to other nearby towers and elevated structures on Wallops Island (EA Figures 3-20 and 3-21, pages 3-46 to 3-47). It is likely the proposed tower would be visible from several miles away; however, the tower would be located in an area of Wallops Island that has been previously developed with other, similar tower structures. The appearance of the proposed tower would be consistent with these other vertical structures on Wallops Island that support the missions of NASA and its partners, and would not contribute to the degradation of an otherwise undisturbed visual landscape. It is likely the structure of the proposed tower would be virtually indistinguishable at night, although pilot warning and obstruction lighting will be visible.

Cumulative Effects (EA § 3.4.3, pages 3-48 to 3-50): The tower project would not contribute to cumulatively significant impacts when considered with other past, present, and reasonably foreseeable future actions occurring at or in the vicinity of Wallops Island. The proposed tower would, individually, result in moderate, less-than-significant effects on birds, including both common (i.e., non-protected) and special status bird species. The severity of such impacts would likely vary and would be influenced by a number of factors and characteristics particular to each bird species. It is unlikely the proposed tower would inhibit the continued propagation of federally-threatened bird species, nor is it anticipated the continued propagation of common bird species would be adversely impacted by the proposed tower, either individually or cumulatively. Thus, impacts on birds resulting from the operation of the proposed instrumentation tower, though moderately adverse, would not be significant.

No similar towers are currently planned or proposed on Wallops Island. The presence of similar vertical structures in the vicinity of Wallops Island resulting from future, though currently unforeseen federal and/or non-federal actions, could similarly contribute to the increased mortality of birds occurring near such structures. As with the proposed tower, the severity of such increases in mortality potentially resulting from future structures would vary and would be contingent on factors such as the height, bulk, density, and operational characteristics of any such structures, as well as the behavior and characteristics of birds interacting with them. The tower would not contribute to cumulatively significant impacts on birds when considered with foreseeable projects of similar scale potentially occurring in the future.

SCOPING AND PUBLIC REVIEW

The USAF initially solicited comments on the tower project from local governments, federal and state agencies, and non-governmental organizations in February 2016 (EA §§ 1.6 and 1.7, pages 1-4 to 1-5). Following the continued refinement, a second scoping period was conducted in March 2017. As part of scoping, the USAF informed the public and appropriate agencies the action would occur within floodplain and wetland areas. Comments received during the 2016 and 2017 scoping periods were addressed accordingly in the EA.

A Notice of Availability was published in the *Eastern Shore News*, *Eastern Shore Post*, and *Chincoteague Beacon* kicking off the 30-day public review period of the draft EA and draft Finding of No Significant Impact. In addition, the USAF directly notified 79 federal, state, and local agencies, organizations, and interested members of the general public of the availability of the draft documents. Printed copies were made available at the Eastern Shore Public Library, the Chincoteague Island Library, the NASA WFF Visitor's Center, and by request from Air Force Materiel Command. Electronic copies were made available from the WFF's website. The draft EA was presented at NASA WFF's recurring monthly public meeting held on Wednesday, July 19, 2017, to discuss upcoming and ongoing projects occurring at WFF (Appendix A, pages A-181 to A-185). Letters and emails with written comments on the draft EA were received during the public review period. These comments were considered by the USAF and have been addressed accordingly in the final EA. Table A-1 within Appendix A on pages A-195 to A-201 provide USAF responses along with revisions made to the EA.

MITIGATION AND MONITORING

The USAF and its contractors will adhere to all applicable mitigation and monitoring measures identified in the referenced EA in accordance with USAF, NASA, federal, state, and/or local regulatory requirements during the construction and/or operation of the proposed instrumentation tower. The USAF has prepared and will implement an *Avifauna and Protected Avian Species MMP* for avifauna and protected avian species. This plan includes thresholds the USAF and NASA will use to continually evaluate the effectiveness of monitoring and mitigation methods and revise the mitigation methods as determined necessary, depending upon the monitoring results.

FINDING OF NO SIGNIFICANT IMPACT

Based on review of the facts and analysis summarized above and contained within the findings of the EA, the USAF finds the proposed decision to construct and operate an instrumentation tower at Building X-015 Site, the Proposed Action Alternative, will not have a significant impact on the natural or human environment with implementation of the *Avifauna and Protected Species MMP*. NASA, having reviewed the contents of the EA, hereby adopts the EA as its own and finds that the proposed decision to grant a land use agreement to the USAF for implementation of the Proposed Action Alternative will not have a significant impact on the natural or human environment. Therefore, both the USAF and NASA find that preparation of an environmental impact statement is not required. In addition, the USAF and NASA find there is no practicable alternative to conducting the Proposed Action Alternative within the floodplain and wetland areas as described in the EA and that the Proposed Action Alternative includes all practicable measures to minimize harm to the environment. This analysis fulfills the NEPA, the President's Council on Environmental Quality 40 C.F.R. §§ 1500 – 1508, the USAF EIAP regulations 32 C.F.R § 989, NASA NEPA regulations 14 CFR § 1216.3 and Executive Orders 11988, *Floodplain Management* and 11990, *Protection of Wetlands*.

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