



**FINDING OF NO PRACTICABLE ALTERNATIVE
REMOVAL AND HARVESTING TREES ALONG NORTH AND
SOUTH ENDS OF RUNWAY**

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Robins Air Force Base, Georgia

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Pursuant to the Council on Environmental Quality regulations (40 Code of Federal Regulations (CFR) 1500 – 1508) for implementing the procedural provisions of the National Environmental Policy Act (NEPA) and the U.S. Air Force (USAF) Environmental Impact Analysis Process codified at 32 CFR §989, the USAF assessed the potential environmental consequences associated with harvesting trees located in a 404-acre area surrounding the north and south ends of Robins AFB runway, GA.

PURPOSE AND NEED

The purpose of the Proposed Action is to remove natural obstructions within the clear zone (CZ), accident potential zones (APZs) I & II, and the Streamside Management Zone (SMZ) surrounding the north and south ends of the Robins AFB runway. The need for the action is to comply with Unified Facilities Criteria (UFC) 3-260-01, *Airfield and Heliport Planning and Design*, as well as protection of the public, pilots, aircrew, aircraft, and other USAF real property assets on Robins AFB. To address airfield encroachment issues at Robins AFB over the long term, the proposed harvest is necessary to facilitate a commercially viable operation with the U.S. Army Corps of Engineers (USACE).

This project meets the criteria of Categorical Exclusion A2.3.11 for actions similar to other actions, which have been determined to have an insignificant impact in a similar setting as established in an environmental assessment (EA) resulting in a finding of no significant impact (FONSI). The 78th Civil Engineering Group at Robin AFB has documented application of this CATEX on an AF Form 813 summarized below. This action is similar to other actions where selective trees were removed from the CZ and APZs as documented within two EAs: *Clear Zone / Accident Potential Zone Selective Tree Removal* (EA CZ and APZ, 2011) and *Southern Frangibility Zone and Graded Clear Zone* (EA SFZ and CZ, 2017). Analyses resulted in two FONSIIs signed by the Senior Command Civil Engineer at Air Force Materiel Command on June 30, 2011 and May 30, 2017. Both EAs analyzed selective cutting and removal of trees within the CZ and portions of the southern APZ where heights extended higher than 15 feet below the elevation of the glide slope. The project area for both these actions occurred within floodplain and wetland areas. The current proposal also includes the removal of trees contained within the same floodplain and wetland areas; however, the proposed action is to cut all trees, regardless of tree height or diameter, with the exception of the trees located in the SMZ, where only trees with a 16-inch diameter, or greater, will be harvested. Based on the physical location and similar activities proposed, environmental analyses within the two EAs are both relevant and applicable and have been incorporated by reference.

PROPOSED ACTION

Total acreage of trees encroaching the CZ and the APZs is estimated to be 25 acres on the north end and 35 acres on the south end of Robins AFB runway (Atchs 1, 2, & 3). This area consists predominately of bottomland hardwoods (e.g. red maple, sweetgum, yellow poplar, willow, water tupelo trees, etc.). Under the Proposed Action, trees within a 404-acre area surrounding the north and south ends of the runway, to include the CZ, APZs I & II, and the SMZ will be cut and removed for harvest. All trees, regardless of height and diameter, will be harvested, and all stumps will remain in place. The stump height will vary depending on the structure of the vegetation. Trees in the SMZ have been designated and mapped with a 75'+ (foot) orange flagged buffer along all creek banks. The sales contract will specify that all trees with a 16" (inch) diameter, or greater, at ground height (4"-8" height stump) will be cut within the SMZ for harvest with minimal damage to the residual stand.

The estimated acreage of harvested trees is 90 acres on the north end and 270 acres on the south end of the runway (Atch 4). Trees harvested will be used for chips (fuel wood), pulpwood, and saw timber that is supported by a strong local market from multiple mills in the area. Through consultation with the Georgia Forestry Commission (GFC) and USAF foresters, timber sale will occur over 1 to 3 years, addressing crucial areas closest to the CZ and APZs within the first 6 months and move outward as weather and timber sale markets permit. Increased acreage for harvesting is necessary to facilitate a commercially viable operation with USACE. Commercial harvest will be managed by the USACE Savannah District, through a cooperative agreement with Robins AFB, and executed in accordance with 10 United States Code 2665, *Sale of certain interests in land; logs* as well as USAF Instruction (AFI) 32-7064, *Integrated Natural Resources Management*. All stumps will remain in place and vary depending on vegetation structure. Trees located in the SMZ will be cut 16" (inch) diameter, or greater, at ground height (4"-8" height stump) with minimal damage to the residual stand. Ingress and egress routes for vehicles, hauling trucks, and timbering equipment will be by corduroy roads. Corduroy roads are built by laying together the logs of cut trees taken from the Proposed Action area to form a haul road/skid trail. The number, width, and total length of the corduroy roads will be minimized to meet operational needs and local conditions. In addition, each site, staging

areas for vehicles, equipment, and personnel would be created. As sites are completed, the corduroy roads and staging areas would be removed. Temporary log bridges, portable spans, or mats would be used for stream crossing and removed upon project completion.

The Robins airfield is located within Ocmulgee River 100-year floodplain and surrounded by jurisdictional wetland areas (~19.5 acres) associated with the Echeconnee Creek, Horse Creek, and Ocmulgee River. Because of proximity to and orientation of the runway and associated CZ and APZs, there is no practicable alternative that will meet the underlying purpose and need; therefore, implementation of the Proposed Action will impact these resource areas.

NO ACTION ALTERNATIVE

Under the No Action Alternative, trees would not be cut and harvested in the north and south ends of the Robins AFB runway. Robins AFB would continue to operate under their two existing temporary obstruction waivers, with renewal required by FY21. If, in the future, these waivers are denied, the airfield would not meet minimum vertical clearance requirements for potential obstructions to air navigation; and eventually, airfield and/or mission operations at Robins AFB would be adversely affected.

ALTERNATIVES DISMISSED FROM FURTHER REVIEW

Alternative 1: Displace (relocate) the Robins AFB runway threshold from the beginning of the runway, north and south ends, to where the trees that exceed the minimum distance of 10 feet below the elevation of the imaginary glide slope are not a factor. This alternative was not carried forward for analysis, as it would result in the Robins AFB airfield being too short and thereby unsuitable for the current and future missions.

Alternative 2: Harvest only trees encroaching the CZ and the APZs. Acreage is estimated to be 25 acres on the north end and 35 acres on the south end of Robins AFB runway. This alternative was dismissed as it could not support a sustainable forestry operation with the USACE. Without a long-term solution to address tree growth throughout the airfield area, Robins AFB will continually have to address tree growth in order to comply with UFC 3-260-01.

SUMMARY OF FINDINGS

The following resources were dismissed from further analysis because it was determined there would be no and/or limited potential for any impacts if the Proposed Action was implemented. While proposed activities will result in temporary noise increases, these levels are insignificant when compared to the existing environment dominated by airfield noise generated from aircraft departures/landings and maintenance-related engine runs. The proposed activities would not result in any obstructions to Robins' airspace. Existing land use designations will not change nor will the existing transportation networks in and around Robins. No asbestos containing material, lead-based paint, polychlorinated biphenyls containing equipment or other toxic/hazardous materials will be used and/or generated by the Proposed Action. There are no minorities, low-income, and/or children populations falling within and/or adjacent to the immediate project area. Based on this, environmental analysis focused on the following resource areas: air quality, water resources, biological resources, and cultural resources. Analysis determined the Proposed Action will not result in significant adverse or cumulative impacts to the environment as summarized below.

Air Quality (EA CZ and APZ Selective Tree Removal §4.2.2)

Robins AFB is located within Houston County, which is classified as in attainment for all criteria air pollutants under the National Ambient Air Quality Standards. Conformity analysis under the Clean Air Act (CAA) is not required. Operation of timbering equipment and transport of cut trees from the Proposed Action will temporarily increase carbon monoxide, hydrocarbons, nitrogen oxides, and particulate matter emission, which will cease upon completion. Air Conformity Applicability Modeling ran for recent tree removal taken along the southern frangibility/graded clear zones calculated air emission below de minimis levels (EA SFZ and CZ, 2017, Appendix E). Based on the quantities estimated, emissions from the Proposed Action would also be below de minimis levels. There are no permanent air emission sources associated with the Proposed Action that require inclusion into the existing Robins AFB CAA Title V operating permit.

Water Resources

Surface Waters (EA CZ and APZ Selective Tree Removal §4.1.2.2)

The Proposed Action will result in temporary impacts on surface waters from minor land disturbance immediately adjacent to active work areas. However, the Proposed Action will not cause significant adverse impacts to surface waters in or near the Proposed Action area. The timber contractor selected by the USACE will adhere to the State of Georgia BMP (GA BMPs) for forestry (GFC, 2009), as well as all federal and state environmental requirements applicable to forestry operations in waters of the U.S. and waters of the State of Georgia to control erosion from storm water runoff during the course of day-to-day tree removal operations. These requirements will be met prior to and during harvest activities. All woody debris resulting from the harvest operations will be removed from floodplain/wetland areas. The corduroy roads and staging areas will be located at a sufficient distant from streams or other water bodies, except for portions of roads that must cross water bodies. Vegetation disturbance will be kept to a minimum. Approaches to any necessary stream crossings will be at right angles to stream flow where practicable. Temporary log bridges, portable spans, or mats will be used for stream crossings and removed when operations are completed. Any disturbance to the soil or stream bank will be stabilized when the temporary crossing is removed. No impervious surfaces that would increase storm water runoff will result from implementation of the Proposed Action.

Floodplains (EA CZ and APZ Selective Tree Removal §4.1.3.2)

The CZ extends 915 meters (3,000 feet) from the end of the runway primary surface into the floodplain and APZs extend more than 3,600 meters (11,000 feet) beyond the CZ. The Proposed Action will have temporary impacts on the floodplain in the immediate work area from the presence and operation of vehicles, hauling trucks, and timbering equipment. However, implementation of the Proposed Action will not cause significant adverse impacts to floodplain characteristics. As discussed in the 2011 and 2017 EAs, the floodplain and flood zone characteristics within the Proposed Action area will not change from the removal of trees since the stumps will be left in place. There will be no effect on the function of surface water conveyance or flood storage capacity. Robins AFB will require the timber contractor to use GA BMPs to control erosion from storm water runoff as discussed within the wetland section.

Wetlands (EA CZ and APZ Selective Tree Removal §4.1.4.2)

The Proposed Action area is in undeveloped wetland and floodplain areas associated with the Echeconnee Creek, Horse Creek, and Ocmulgee River floodplain complex. Prior to performing projects within a wetland, the USAF must investigate and exhaust all potential alternatives that will avoid or minimize impact to wetland resources and compensate for unavoidable wetland impacts. This requirement is consistent with EO 11990, *Protection of Wetlands*, Section 404 of the Clean Water Act (CWA), and the wetlands compliance responsibilities of AFI 32–7064, *Integrated Natural Resources Management*. The Proposed Action is needed to meet UFC 3-260-01 minimum vertical clearance requirement for eliminating potential obstructions to the CZ and APZ glide slope and to protect the public, pilots, aircrew, aircraft, and other USAF real property assets on Robins AFB. The proposed acreage for harvest exceeds the acreage of trees that are encroaching the CZ and APZ of Runway 15 and 33. The increased acreage is necessary to facilitate a commercially viable forestry operation with the USACE. In addition, the increased acreage will address encroachment issue in the long term. All trees identified for harvest are within jurisdictional wetlands; therefore, there is no practicable alternative that would meet the purpose and need of the Proposed Action. Consequently, the proposed harvest must be executed within this location.

The Proposed Action has been coordinated with the USACE Savannah District and the State of Georgia Forestry Commission to ensure compliance with federal and state environmental requirements. Per 33 CFR 323.4, *Discharges not requiring permits*, paragraph (a)(1)(ii), if an activity takes place outside the waters of the United States, or if it does not involve a discharge, a CWA Section 404 Permit is not required, whether or not it is part of an established farming, silviculture, or ranching operation. Due to no discharge of dredged material associated with this project, Robins AFB has determined this project does not require a Section 404 Permit and is not subject to these regulations. In addition, if there is any unanticipated discharge of dredge or fill material that may result from the proposed activity, it is not prohibited by or otherwise subject to regulation under Section 404 since the criteria per 33 CFR §323.4 has been satisfied.

Robins AFB has previously utilized silviculture to address glide slope and frangibility requirements within the CZ and APZs. The CZ and APZs have evidence of prior silviculture operations, including stumps from previous harvests and successional vegetation within the footprint of the project. The Proposed Action will have temporary effects on wetlands in the immediate work area from the presence/operation of heavy equipment. In developing forested wetlands Best Management Practices (BMPs), states in the southeast have recognized certain silvicultural site preparation techniques are more effective when conducted in areas that have drier water regimes. The BMPs

stated below represent a composite of state expertise to protect water quality from silvicultural impacts. These BMPs also address the location, as well as the nature of activities. The USACE and USEPA believe these forested wetlands BMPs are effective in protecting water quality and therefore are adopting them to protect these functions and values considered under Section 404 of CWA. The following federally mandated BMPs are designed to minimize the impacts associated with mechanical silvicultural site preparation activities in circumstances where these activities do not require a permit. The timber contractor will apply these BMPs, at a minimum, as part of the Proposed Action; therefore, implementation of silviculture activities will not cause significant impacts in or near the wetlands within the CZ or APZs.

- 1) Position shear blades or rakes at or near the soil surface and windrow, pile, and otherwise move logs and logging debris by methods that minimize dragging or pushing through the soil to minimize soil disturbance associated with shearing, raking, and moving trees, stumps, brush, and other unwanted vegetation;
- 2) Conduct activities in such a manner as to avoid excessive soil compaction and maintain soil tilth;
- 3) Arrange windrows in such a manner as to limit erosion, overland flow, and runoff;
- 4) Prevent disposal or storage of logs or logging debris in streamside management zones -- defined areas adjacent to streams, lakes, and other waterbodies -- to protect water quality;
- 5) Maintain the natural contour of the site and ensure that activities do not immediately or gradually convert the wetland to a non-wetland; and
- 6) Conduct activities with appropriate water management mechanisms to minimize off-site water quality impacts.

Storm Water (EA CZ and APZ Selective Tree Removal §4.1.5.2)

The Proposed Action will not create any additional impervious area(s) allowing the storm water volume to remain unchanged. Robins AFB will require the timber contractor to use GA BMPs to control erosion from storm water runoff as discussed within the biological section below. To minimize soil disturbance and associated soil erosion/runoff, stumps of all cut trees will remain in place. In addition, the timber contractor selected by the USACE will adhere to GA BMPs for forestry (GFC, 2009) as well as other federal and state environmental requirements applicable to forestry operations in waters of the U.S. and waters of the State of Georgia to control erosion from storm water runoff so as not to cause significant adverse impacts. Overall, there will be no significant impact on storm water.

Biological Resources (EA CZ and APZ Selective Tree Removal §4.5.2)

The principal effects from the Proposed Action will be temporary increase in noise and traffic from equipment and habitat alteration from harvesting trees in the bottomland forest within the CZ and APZs. Wildlife in the immediate area of the airfield is accustomed to the significant noise from aircraft departure and landing that dominates the noise environment in the Proposed Action area. No federally-listed endangered, threatened, or sensitive species are present on or near Robins AFB. State plant species of concern do occur on base, but no populations have been identified within the CZ or APZs and would not be affected by the Proposed Action. Care will be exercised to avoid impact to the state-protected Ocmulgee skullcap population on the upland bluff west of Hannah Road. Target trees in this forested area will be cut and removed when vegetative portions of this plant are not present. Soil disturbance will be minimized by leaving stumps in place.

Bird/aircraft strikes pose a considerable hazard to aircraft and their crews. A primary focus of wildlife management at Robins AFB is the elimination or minimization of aircraft exposure to potentially hazardous bird strikes, as well as strikes of terrestrial animals on the runway. The Robins *BASH Plan* (RAFB, 2015) provides guidance in achieving this goal. The *BASH Plan* is based on hazards from both permanent (non-migratory) and seasonal (migratory) bird populations, and other animals that may wander onto the runway. While air navigation safety would be improved by eliminating potential obstructions, creating more open wetland areas would result in deeper, more open water areas that would attract wading birds and wintering waterfowl. The indirect consequence of creating more attractive habitat under the runway approach would negatively impact BASH management by potentially attracting larger birds to the area.

Cultural Resources (EA CZ and APZ Selective Tree Removal §4.6.2)

Based on the archeological survey conducted in accordance with the Robins AFB Integrated Cultural Resources Management Plan (ICRMP, 2016), there is little potential for undiscovered archaeological sites at the Proposed Action area. Although the Proposed Action area is in close proximity/vicinity to the Strategic Air Command (SAC) Alert Apron site, which is an archaeological site eligible for the National Registry of Historic Places (NRHP), there will be no direct disturbance or ground disturbance of the SAC Alert Apron. There is the potential the Proposed Action would impact the view shed of the SAC Alert Apron; however, the impact is short-term and not permanent as the vegetation will grow back. There would be no impact on cultural resources.

FINDING OF NO PRACTICABLE ALTERNATIVE. Based on review of the facts and analysis summarized above and contained within *Clear Zone / Accident Potential Zone Selective Tree Removal EA*, 2011 and *Southern Frangibility Zone and Graded Clear Zone EA*, 2017), I find the Proposed Action will not have a significant impact on the natural or human environment. Robins AFB and its contractors will be responsible for and adhere to all applicable federal, state, and local regulatory permitting requirements identified above and within the AF813. An environmental impact statement is not required. Considering the above information, I also find there is no practicable alternative to harvesting trees within the Ocmulgee River 100-year floodplain and surrounding jurisdictional wetland areas as described above. The Proposed Action has taken all practicable measures to minimize harm to these resources. This analysis fulfills the requirements of NEPA, the President’s CEQ regulations, 40 CFR §§1500 – 1508, the USAF regulation on their environmental impact analysis process codified at 32 CFR §989, Executive Order 11988, *Floodplain Management*, and Executive Order 11990, *Protection of Wetlands*.

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DATE

4 Attachments:

- (1) Robins AFB Accident Potential Zone North Map
- (2) Robins AFB Accident Potential Zone South Map
- (3) Robins AFB Airspace Imaginary Surfaces Map
- (4) Robins AFB 2018 Lidar Trees Acreage Maps