

FINDING OF NO SIGNIFICANT IMPACT

Name of Action: McGuire Air Force Base Digital Airport Surveillance Radar

The Department of Defense (DoD) proposes to construct a Digital Airport Surveillance Radar (DASR) system at McGuire Air Force Base (AFB) in New Jersey. This proposed action is part of the DoD National Airspace System (NAS) Program, which involves the replacement of analog air traffic control systems with state-of-the-art digital air traffic control equipment on U.S. Army, U.S. Navy, and U.S. Air Force (USAF) bases throughout the country. The implementation of the NAS program, which also includes the installation of DoD Advanced Automation Systems (DAAS) and Voice Communications Switching Systems (VCSS) at DoD bases, was previously evaluated in a programmatic Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) (1995).

The EA for McGuire AFB addresses the site-specific impacts of locating a DASR system on McGuire AFB, and evaluates the consequences of the DASR system construction on both the natural and man-made environments. The DAAS and VCSS components of the NAS program at McGuire AFB will be located within existing buildings, and impacts are anticipated to be minor.

The DASR system at McGuire AFB is needed to replace the existing GPN-20 airport surveillance radar. The ASR-11 will improve system reliability, provide additional weather data, reduce maintenance cost, improve performance, and provide digital data input to proposed new digital automation system air traffic controller displays. While the existing GPN-20 at McGuire AFB was installed in December 1997, the proposed new ASR-11 will take advantage of the significantly increased capabilities of digital technology. The proposed new DASR system will serve to accurately locate aircraft, in terms of range, azimuth, and latitude; provide information regarding aircraft identification code; identify emergency conditions; and report six discrete weather precipitation levels.

Three alternative sites were evaluated for location of the ASR-11. As described below, both Site CE-1 and Site 5 feature characteristics that would generally make either of these locations an acceptable location for the radar facility from an environmental perspective. However, Site CE-3, which is characterized by substantial wetland resources and may be unacceptable from an operations standpoint, is not an environmentally preferred site.

Site CE-1 is located in an area zoned for aircraft operations/maintenance, and would generally be compatible with the construction and operation of the DASR facility. No significant adverse impacts associated with land use, socioeconomics, utilities, transportation, noise, air quality, geology, surface water, groundwater, biological resources, aesthetic resources, or cultural resources would be anticipated if Site CE-1 were selected as the preferred alternative. Site CE-1 has the advantage of being located closest to the existing GPN-20, the site of the new RAPCON, and therefore, requires the shortest fiber optic cable link. There is potentially contaminated groundwater in the vicinity of Site CE-1, but groundwater is not expected to be encountered at Site CE-1.

Site 5 is located in an area classified as outdoor recreation, and would also generally be compatible with the construction of the DASR facility, although there would be a loss of open space and there may be impacts to users of the adjacent golf course. No significant adverse impacts associated with socioeconomics, utilities, transportation, noise, air quality, geology, surface water, groundwater, biological resources, or hazardous waste would be anticipated if Site 5 were selected as the preferred alternative. Site 5 is located in close proximity to the National Register-eligible SAGE building, as well as the base golf course; however, construction of the DASR at this location would not significantly alter the aesthetics of the site. Measurements recently conducted by the Air Force revealed a low probability of the ASR-11 causing interference to the telephone switching system or the trunked LMR repeater; thus, the site was not precluded from an operational perspective. One disadvantage for Site 5 is its distance from the proposed RAPCON; Site 5 would require approximately 8,800 feet of fiber optic cable to connect to this communications facility.

Several conditions at Site CE-3 make it less acceptable for DASR installation and operation. The recently completed electromagnetic compatibility study indicated that the minimum separation distance between the ASR-11 tower and the GATR antennas, as set forth in the guidelines for siting VHF and UHF ground radio sites, cannot be met at Site CE-3 due to the physical size of the GATR site compound. Based on the wetland investigation conducted and conversations with the New Jersey Pinelands Commission, it appears that Site CE-3 would be regulated as a wetland. Selection of Site CE-3 for the site of the ASR-11 could result in a lengthy and difficult permitting process. The Pinelands Commission would require the Air Force to apply for a Waiver from Strict Compliance with the Pinelands standards, which includes a detailed feasibility/ alternatives analysis. The Air Force would need to demonstrate to the Commission's satisfaction that no other location on the base is acceptable for the installation of the proposed radar facility.

Operation of the DASR system is anticipated to have minimal long-term impacts to the natural and human environments. The radar would generate RFR while operating. However, the RFR generated would be safe to humans at ground level and is not anticipated to pose a harm to the general population. During the DASR system operation, fuel and other hazardous materials may be used at the site, such as engine oil and grease. However, use and disposal of any hazardous materials would occur in compliance with McGuire AFB protocols and guidelines as well as applicable state and federal regulations. Consequently, it is anticipated that operational use of hazardous materials will not adversely affect the natural or human environments.

In summary, construction and operation of the DASR system at McGuire AFB at either Site CE-1 or at Site 5 would result in minimal short-term and long-term impacts to the environment. Implementation of the DASR system at Site CE-3 would result in potentially more significant short-term environmental impacts. While selection of either Site CE-1 or Site 5 would be acceptable from an environmental perspective, the Air Force has selected Site CE-1 as the preferred site for the ASR-11 because of operational considerations.

It is anticipated that few mitigation measures would be required during construction and operation

of the facility. During the construction period, sheeting or supports of some kind may be used in the areas excavated for the tower footings and utility trenches in order to prevent collapse of these excavated areas. Groundwater levels will be monitored and maintained as necessary. To minimize noise impacts during construction, mufflers would be used on construction equipment and vehicles.

In addition, all equipment and vehicles used during construction would be maintained in good operating condition so that emissions are minimized, thus reducing the potential for air quality impacts. Noise barriers may also be used to reduce noise levels. These barriers would have the benefit of providing a visual buffer. Dust will be controlled onsite by using water to wet down disturbed areas. All areas disturbed for the DASR system construction would be seeded with a grass mixture or covered with a geotextile fabric and crushed stone to stabilize the disturbed soils, in order to minimize the potential for erosion and sedimentation. All hazardous materials used during construction would be handled and disposed of in accordance with McGuire AFB policies and protocols and all applicable state and federal regulations. Traffic management measures will be developed to ensure traffic flow and pedestrian access is maintained.

During operation of the DASR system, fuel would be stored at an above-ground storage tank (AST) and some hazardous materials, such as equipment oil or grease, may be used at the site. Similar to the construction period, all hazardous materials used during operation would be used and disposed of in accordance with McGuire AFB policies and protocols and all applicable state and federal regulations in order to minimize the potential for media contamination.

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Date