

Oceana/NALF Fentress complex compared to 87,529 people under the modeled 2000 noise zone—an 11% increase over existing conditions. The DNL and noise equivalent sound level ( $L_{eq}$ ) for schools within the greater than 65 DNL noise zone will increase between 0 and 4 decibels (dB), depending on location, over existing conditions. The total land area within the greater than 65 DNL noise zone around the NAS Oceana/NALF Fentress complex will increase by only 1%. While the total increase in affected land is only 1%, there will be a 17% increase in residential areas within the greater than 65 DNL noise zone in the City of Virginia Beach and a 40% decrease in residential areas within the greater than 65 DNL noise zone in the City of Chesapeake.

Approximately 8,915 people will be within the greater than 65 DNL noise zone around MCAS Cherry Point if the 2 fleet squadrons train at the new OLF, compared to 8,713 under the modeled 2000 noise zone—a 2% increase over existing conditions. The DNL and  $L_{eq}$  for schools within the greater than 65 DNL noise zone will increase between 0 and 2 dB over existing conditions. The total land area within the greater than 65 DNL noise zone around MCAS Cherry Point will increase 22%, but includes only an 11% increase in residential areas within the greater than 65 DNL noise zone.

Generally, individuals living in the greater than 65 DNL noise zone may be annoyed and may experience interference with daily activities such as sleep, conversation, television viewing, and outdoor recreation. Homeowners living in the greater than 65 DNL noise zones associated with operations at NAS Oceana, NALF Fentress, and MCAS Cherry Point may incur costs to ensure that sufficient sound attenuation exists within their dwellings to achieve the U.S. Environmental Protection Agency (USEPA) interior noise level goal of 45 dB. There is very little probability that these homeowners will experience long-term physical effects, such as hearing loss, from exposure to the projected noise levels. Recent studies suggest, however, that some individuals, particularly children, may temporarily experience stress or elevated blood pressure from exposure to noise.

Two schools near NAS Oceana and two schools near MCAS Cherry Point are located within the greater than 75 DNL noise zone. Research on the impacts of aircraft noise, and noise in general, on the cognitive abilities of school-aged children suggests that chronic exposure to noise can result in reading deficits, impaired speech

perception, and difficulty in solving cognitive problems. Local school authorities may incur costs to ensure that sufficient sound attenuation exists within the schools to achieve the USEPA-recommended interior noise level goal of 45 dB and the American National Standards Institute, Inc., design guideline that background noise levels within most classrooms should not exceed 40 dB for more than 10% of the busiest hour.

At OLF Site C in Washington County, an estimated 141 persons reside within the area encompassed by the 60 DNL noise zone. Normally, noise zones are not depicted below 65 DNL because land uses are generally compatible with aircraft operations below 65 DNL. However, due to the rural nature and low ambient noise level of the OLF site, the projected noise exposure for OLF sites was analyzed for the 60 DNL and greater noise contours. No schools or churches are located within the greater than 60 DNL noise zone at Site C. Aircraft will reach a cruising altitude of 15,000 to 25,000 feet above ground level (AGL) at 5 to 8 miles beyond the OLF. At cruising altitude, sensitive ecological resources or population centers on the ground will not be affected by aircraft operations or noise.

The Navy will acquire approximately 30,000 acres at Site C in Washington County to mitigate noise-related impacts and promote compatible development and land uses in the vicinity of the OLF. Residences within the greater than 60 DNL noise zone will be acquired based on the appraised fair market value of the property at the time the purchase offer is made. While social and family connections to the land may be disrupted, the Navy will consider means for allowing property owners continued use of the land acquired for the OLF, where such use will not interfere with the mission and the safe and efficient operation of the OLF. New commercial or residential development on lands owned by the Navy will be precluded.

Local and state jurisdictions also will be impacted by the loss of tax revenue on property acquired by the Navy for the OLF. Although lands purchased by the Navy will be removed from the local property tax rolls, agricultural lands that are purchased by the Navy will be out-leased where consistent with the mission of the OLF and continue in productive use for these purposes. These agricultural leasehold interests are taxable in North Carolina.

There may be significant impacts from the loss of prime farmland. Approximately 1,700 acres of the core area of Site C is mapped as prime farmland soils. Based on the evaluation

of the site using the site assessment criteria from the U.S. Department of Agriculture, Farmland Conservation Impact Rating Form, removal of these soils for construction of an OLF represents a significant loss of prime farmland in Washington County. Where consistent with the mission of the OLF, the Navy will out-lease unused agricultural acreage surrounding the OLF core area to continue productive use for these purposes.

There may be significant impacts on airspace in the area around OLF Site C. Aircraft operations at Site C may affect commercial and private users of airspace in the vicinity of the Plymouth Municipal Airport in Plymouth, North Carolina. Aircraft will not be able to utilize visual flight rules (VFR) when transiting airspace in the area of Site C. Additionally, the Navy will purchase a private airfield and provide relocation assistance to the owner.

There may be disproportionately high and adverse impacts on minority and low-income populations. The greater than 60 DNL noise zone for Site C extends over two census tracts that contain a higher percentage of minority and low-income populations than the respective county of comparison. Based upon this census tract data, the EIS concluded that selection of Site C for an OLF could result in disproportionately high and adverse effects on minority and low-income populations. Use of census tract data produces a conservative estimation of impacts because it assumes a uniform dispersion of the population throughout any given census tract.

### Mitigation

The Navy will prepare a site plan for construction of the runway at Site C, with a designated flight operations plan. This will be submitted to the Federal Aviation Administration (FAA) for a final aeronautical review/approval of Site C. Deconfliction of military and civilian air traffic will be accomplished through the establishment of Class D airspace in conjunction with an air traffic control tower at Site C. Air traffic flying in Class D airspace at altitudes of 2,500 feet or below will be required to contact the control tower in accordance with FAA regulations. Air traffic control personnel at the tower will facilitate the sequencing of aircraft inbound to the OLF and provide other air traffic with advisories regarding OLF operations.

The Navy will prepare/update and implement an Air Installations Compatible Use Zones (AICUZ) plan for NAS Oceana, MCAS Cherry Point, and OLF Site C. This will ensure that the local communities understand the