

## FINDING OF NO SIGNIFICANT IMPACT

### *Demolition of Buildings 122, 144, 153, 501 and 502 at New Boston Air Force Station, New Hampshire*

The U.S. Air Force (USAF) at New Boston Air Force Station (NBAFS), New Hampshire proposes to demolish Buildings 122 (former recreation office), Building 144 (storage), Building 153 (recreation pavilion), Buildings 501 and 502 (former dormitories) remove associated infrastructure and establish a mowed lawn.

Potential impacts to the natural and human environment associated with the demolition of Buildings 122, 144, 153, 501, 502 and associated infrastructure at NBAFS are assessed in the attached Environmental Assessment (EA) entitled "Environmental Assessment For Demolition of Buildings 122, 144, 153, 501 and 502 at New Boston Air Force Station, New Hampshire". The EA was prepared in accordance with specific tasks and procedures of the USAF Environmental Impact Analysis Process (32 CFR 989), as it applies to the National Environmental Policy Act of 1969 (Public Law 91-190, 42 U.S.C. §§4321-4347).

The EA evaluates the environmental consequences of a proposed action (demolition and establishment of lawn), and the no-action alternative (i.e., maintaining the existing buildings and infrastructure). The assessment evaluates the potential for impacts to air quality, noise levels, topography, geology, soils, water resources, ecological resources (including threatened and endangered species and wetlands), cultural resources, land use, recreation, visual resources, socioeconomics, and health and safety. Based on a comparison of the proposed action and the no action alternative, the proposed action is preferred. The general public was given a 15-day period 15 Jul to 30 Jul 08 to comment on the proposed action and the EA. No comments were received from the public on the draft EA.

On the basis of the assessments presented in the EA, the proposed action would not result in any significant impacts to the environment. Overall, actions associated with demolition of the buildings and infrastructure would be similar to other soil disturbance activities that have occurred within the Operations Area of NBAFS.

Based upon these reviews and the assessments detailed in the EA, it has been determined that the proposed action would not have a significant effect on the human environment. Therefore, an Environmental Impact Statement will not be required nor prepared for the demolition of Buildings 122, 144, 153, 501 and 502 at New Boston Air Force Station, New Hampshire.

1 Aug 08

Date

for Dean C. Bellamy

KEVIN P. REIGSTAD, Lt Col, USAF  
Commander

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**ENVIRONMENTAL ASSESSMENT  
FOR  
DEMOLITION OF BUILDINGS 122, 144, 153, 501 AND 502  
AT NEW BOSTON AIR FORCE STATION, NEW HAMPSHIRE**



**Prepared by**

**23 SOPS/CEN  
U.S. Department of the Air Force  
New Boston Air Force Station  
New Hampshire**

**July 2008**

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## ACRONYMS AND ABBREVIATIONS

AFSCN	Air Force Satellite Control Network
ANL	Argonne National Laboratory
CFR	Code of Federal Regulations
CO	carbon monoxide
CTV	cable television
EA	environmental assessment
EIAP	environmental impact analysis process
EPA	Environmental Protection Agency
MSL	mean sea level
NAAQS	National Ambient Air Quality Standards
NASA	National Aeronautics and Space Administration
NATO	North Atlantic Treaty Organization
NBAFS	New Boston Air Station
NEPA	National Environmental Policy Act
NHDHR	New Hampshire Division of Historical Resources
NO <sub>2</sub>	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
O <sub>3</sub>	ozone
OSHA	Occupational Health and Safety Act
PAL	Public Archaeology Laboratory, Inc.
Pb	lead
PES	Parsons Engineering Sciences, Inc.
PM <sub>2.5</sub>	particulate matter with an aerodynamic diameter of 2.5 µm
PM <sub>10</sub>	particulate matter with an aerodynamic diameter of 10 µm
SHPO	State Historic Preservation Officer
SO <sub>2</sub>	sulfur dioxide
SOPS	Space Operations Squadron
SAAQS	State of New Hampshire Ambient Air Quality Standards
USAF	United States Air Force
UXO	unexploded ordnance

## UNITS OF MEASURE

cm	centimeter(s)
dB	decibel(s)
dBA	unit of weighted sound-pressure level
ft	foot (feet)
h	hour(s)
ha	hectare(s)
in.	inch(es)
km	kilometer(s)
km <sup>2</sup>	square kilometer(s)
kV	kilovolt
L <sub>dn</sub>	day-night weighted equivalent sound level
L <sub>eq</sub>	equivalent steady sound level
m	meter(s)
m <sup>2</sup>	square meter(s)
m <sup>3</sup>	cubic meter(s)
mi	mile(s)
mi <sup>2</sup>	square mile(s)
mm	millimeter(s)
μm	micrometer(s)
yd <sup>3</sup>	cubic yard(s)

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**ABSTRACT**

The proposed action evaluated in this environmental assessment (EA) is the demolition of Buildings 122, 144, 153, 501 and 502, removal of associated infrastructure and planting to grass. The proposed action is needed to eliminate operation and maintenance costs for unnecessary structures on New Boston Air Force Station (NBAFS). An alternative was considered to reuse the some of the buildings; but was eliminated from full analysis due to cost and environmental concerns. The no-action alternative (i.e., maintain buildings) was also assessed in this EA. This EA evaluated the potential impacts to air quality, noise levels, topography, geology, soils, water resources, ecological resources, cultural resources, land use, recreation, visual resources, socioeconomics, and health and safety. On the basis of this assessment, it was determined that the proposed action would result in only minor to negligible localized, short-term, or temporary impacts to the environment as compared to the no-action alternative. The demolition of Buildings 122, 144, 153, 501 and 502 would result in a negligible to minor incremental addition to impacts that have occurred from other construction activities in the vicinity of the Operations Area of the NBFAS.



## **1. PURPOSE AND NEED FOR THE PROPOSED ACTION**

The proposed action evaluated in this Environmental Assessment (EA) is the demolition of Buildings 122 (former recreation office), Building 144 (storage), Building 153 (recreation pavilion), Buildings 501 and 502 (former dormitories). The proposed action is needed to eliminate operation and maintenance costs for unnecessary structures on New Boston Air Force Station (NBAFS). This EA evaluates the environmental consequences of implementation of the proposed action. This EA was prepared in accordance with specific tasks and procedures of the U.S. Air Force (USAF) Environmental Impact Analysis Process (32 CFR 989), as it applies to the National Environmental Policy Act (NEPA) of 1969, 40 Code of Federal Regulations (CFR) Parts 1500-1508, as amended.

## **2. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES**

This section provides a brief description of the proposed action and the no-action alternative (Section 2.2.2).

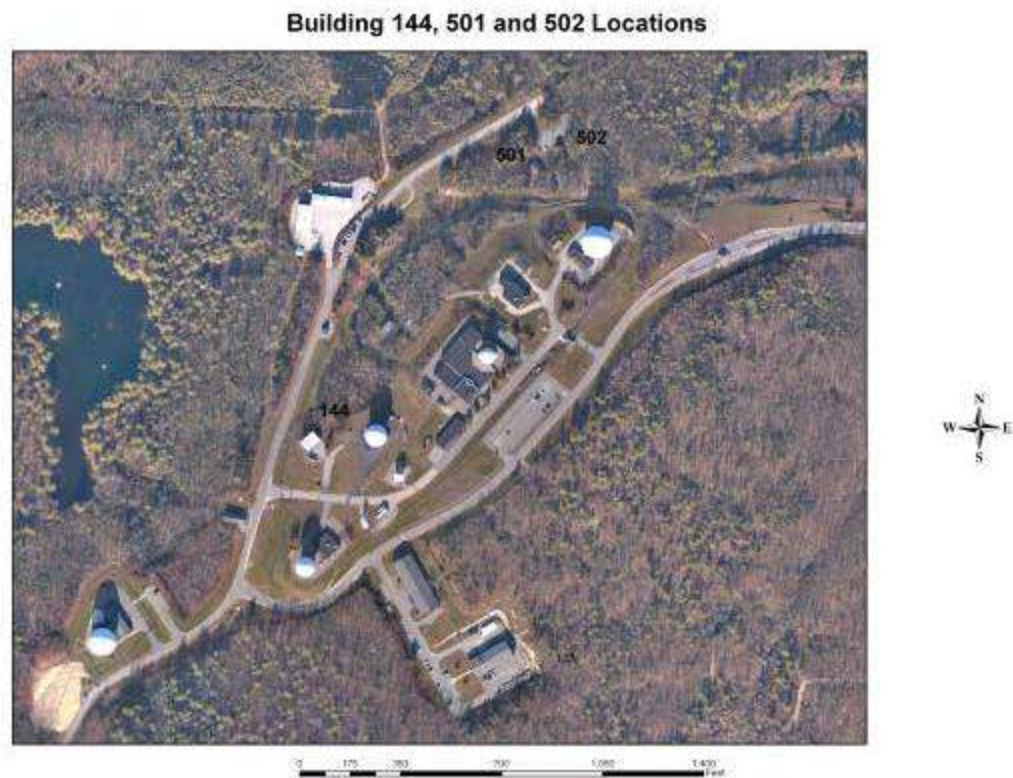
### **2.1 Proposed Action**

The proposed action evaluated in this EA is the demolition of Buildings 122 (former recreation office), Building 144, storage, Building 153 (recreation pavilion), Buildings 501 and 502, (former dormitories), removal of associated infrastructure and establishing grass in the project area. Demolition activities would follow standard practices to comply with Federal, State, and local environmental and health and safety regulations. The demolition contractor would be responsible for meeting these specifications, including any restoration requirements set forth by NBAFS. The contractor would also be responsible for the safe removal and legal off-site disposal of materials that cannot be salvaged.

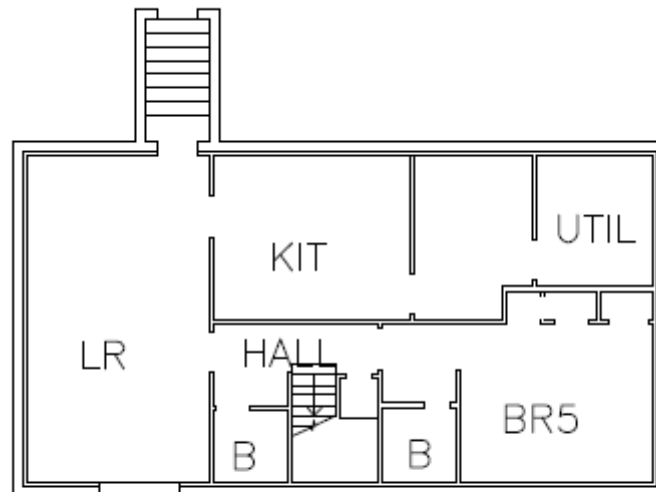
**Table 1. Building Information**

Building number	Year constructed	Function	Square footage	Area to be disturbed
Building 501	1988	Military Family Housing	2496 SF	< 1 Acre
Building 502	1988	Military Family Housing	2496 SF	< 1 Acre
Building 153	unknown	FamCamp Office Trailer	600 SF	< 1 Acre
Building 144	1974	Storage	2400 SF	< 1 Acre
Building 122	1960	Outdoor Recreation	144 SF	< 1 Acre

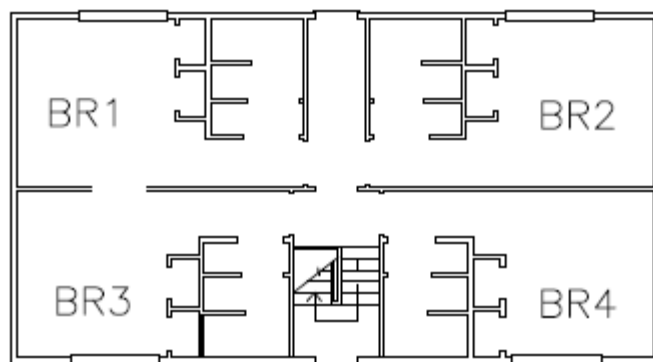
**Figure 1. Location of Proposed Action and Alternative Action**



**Figure 2. Building 501 & 502 Floor-plan**



LOWER LEVEL



UPPER LEVEL

**Figure 3. Building 501**



**Figure 4. Building 502**





**Figure 5. Building 144, Open Storage**



**Figure 6. Building 122, Family Camp Pavilion**



**Figure 7. Building 152 Family Camp Office Trailer**



## 2.2 Alternatives to the Proposed Action

### *2.2.1 Alternative Action Eliminated From Full Consideration*

Reuse for office space or other uses was informally assessed by 23 SOPS Civil Engineering and was determined to be not feasible because of cost and environmental concerns. Base housing is no-longer needed for 23 SOPS personnel and the facilities currently have possible mold issues. The family camp trailer and pavilion are not repairable and no longer needed for campground operations.

### *2.2.2 No-Action Alternative*

Under the no-action alternative the buildings would continue to be mothballed. This would cause the USAF to continue expending funds for maintenance activities. The buildings would continue to be empty.

## 2.3 Comparison of Alternatives

A summary comparison of the expected environmental impacts of the proposed action, and no-action alternatives is presented in Table 1. Additional discussion of these environmental impacts is provided in Section 4.

Only minor or negligible impacts are expected to result from the proposed action. The impacts would be localized and of short duration, and would be a small incremental addition to the impacts that have resulted from other construction projects and associated landscaping within the Operations Area of NBAFS.



**Table 2. Summary Comparison of Impacts Associated with the Proposed Action, and No Action Alternatives)**

<b>Environmental Parameter</b>	<b>Impacts</b>	
	<b>Proposed Action</b>	<b>No-Action</b>
<b>Air Quality and Noise</b>	Minor dust and engine emissions during demolition. No violations are expected of federal and state ambient air quality standards for criteria pollutants.	No impacts.
	Occasional short-term noise from truck traffic and equipment operation.	No impacts.
	No noise associated with system operation.	No impacts.
<b>Topography, Geology, and Soils</b>	Localized minor terrain changes from grading.	No impacts.
	Localized minor soil erosion and compaction.	No impacts.
<b>Water Resources</b>	Potential for localized minor increases in turbidity and sedimentation during construction (from erosion and trenching).	No impacts.
<b>Ecological Resources</b>	Potential minor indirect impact to wetlands resulting from sediment runoff during demolition.	No impact.
	No impacts to listed threatened or endangered species. Potential for minor disturbance to Blanding's turtle, Eastern Hognose Snake, and other species.	No impact.

**Table 2 (Continued)**

<b>Environmental Parameter</b>	<b>Impacts</b>	
	<b>Proposed Action</b>	<b>No-Action</b>
<b>Ecological Resources (continued)</b>	Creation of approximately 3 acres of maintained lawn favoring species which prefer open habitat.	No Impacts.
	Localized minor noise and visual disturbance to wildlife during demolition.	No impacts.
<b>Cultural Resources</b>	Negligible potential for damage to underground cultural resources.	No impacts.
<b>Socioeconomics</b>	Negligible, short-term benefits to the local economy during the demolition period.	No impacts.
	No environmental justice impacts.	No impacts.
<b>Health and Safety</b>	Negligible potential for accidents to demolition and maintenance workers.	Creates possible attractive nuisance.

### 3. AFFECTED ENVIRONMENT

This section presents a general description of NBAFS and the resources that could be affected by the construction of the underground electrical and communications distribution system. The descriptive material is drawn mostly from various EAs and natural resources reports that pertain to the NBAFS (e.g., ANL 1990, 1997, 1999; PES 1995, 1996).

#### 3.1 Location, History, and Current Mission

NBAFS is located in south-central New Hampshire about 19 km (12 mi) west of Manchester. The 1,144-ha (2,826-acre) site is located within the towns of New Boston, Amherst, and Mont Vernon in Hillsborough County (Figure 1). The 17.7 ha (44 acres) Operations Area, that the proposed demolition is located in the northeast portion of the station and at the family camp.

As one of the worldwide network of satellite command and control stations of the Air Force Satellite Control Network (AFSCN), the current mission of NBAFS is to serve as a remote tracking station for military and communications satellites. The 23 Space Operations Squadron (SOPS) at NBAFS provides launch, operation, and on-orbit support for more than 100 military satellites, communication satellites, North Atlantic Treaty Organization (NATO) and other allied nation satellites, and for National Aeronautics and Space Administration (NASA) Space Shuttle missions.

From 1941 until 1956 the site (then known as the New Boston Bombing and Gunnery Range) was used as an air-to-ground bombing and strafing range. The USAF acquired rights to the site in 1957 for use as a satellite tracking station. In 1959, the 6594<sup>th</sup> Instrumentation Squadron was activated at NBAFS. Squadron activities began in 1960 with use of mobile radar units until the permanent facilities were constructed and in operation by 1964. In the early 1960s, the Operations Area was cleared of unexploded ordnance (UXO) before the permanent facilities for the satellite tracking mission were constructed. The site was formerly under the jurisdiction of the USAF Systems Command, and moved under the USAF Space Command in 1987 (PES 1995). As mentioned, the satellite tracking mission is conducted from the

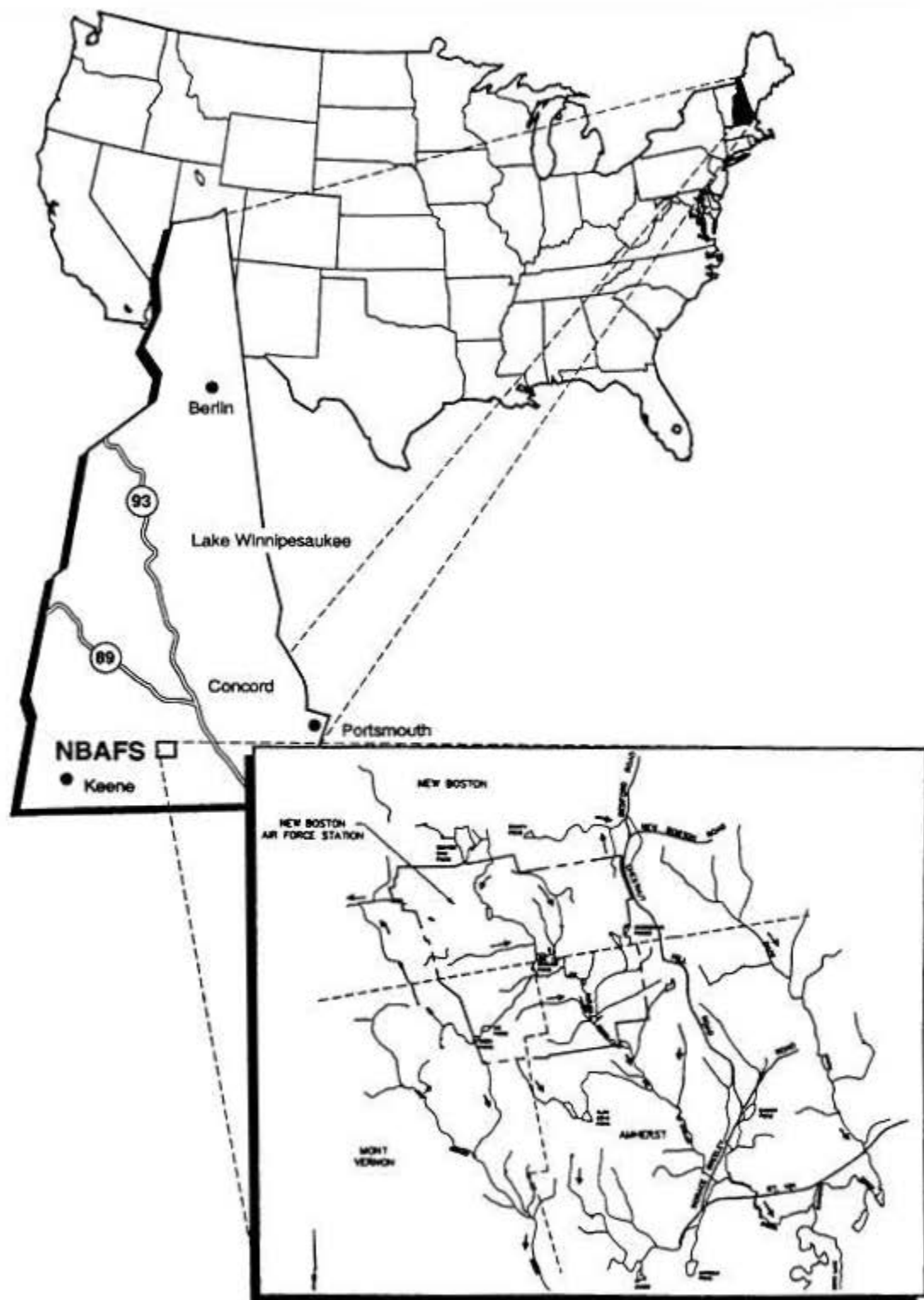


Figure 8. Location of New Boston Air Station, New Hampshire (Source: ENSR 1993)

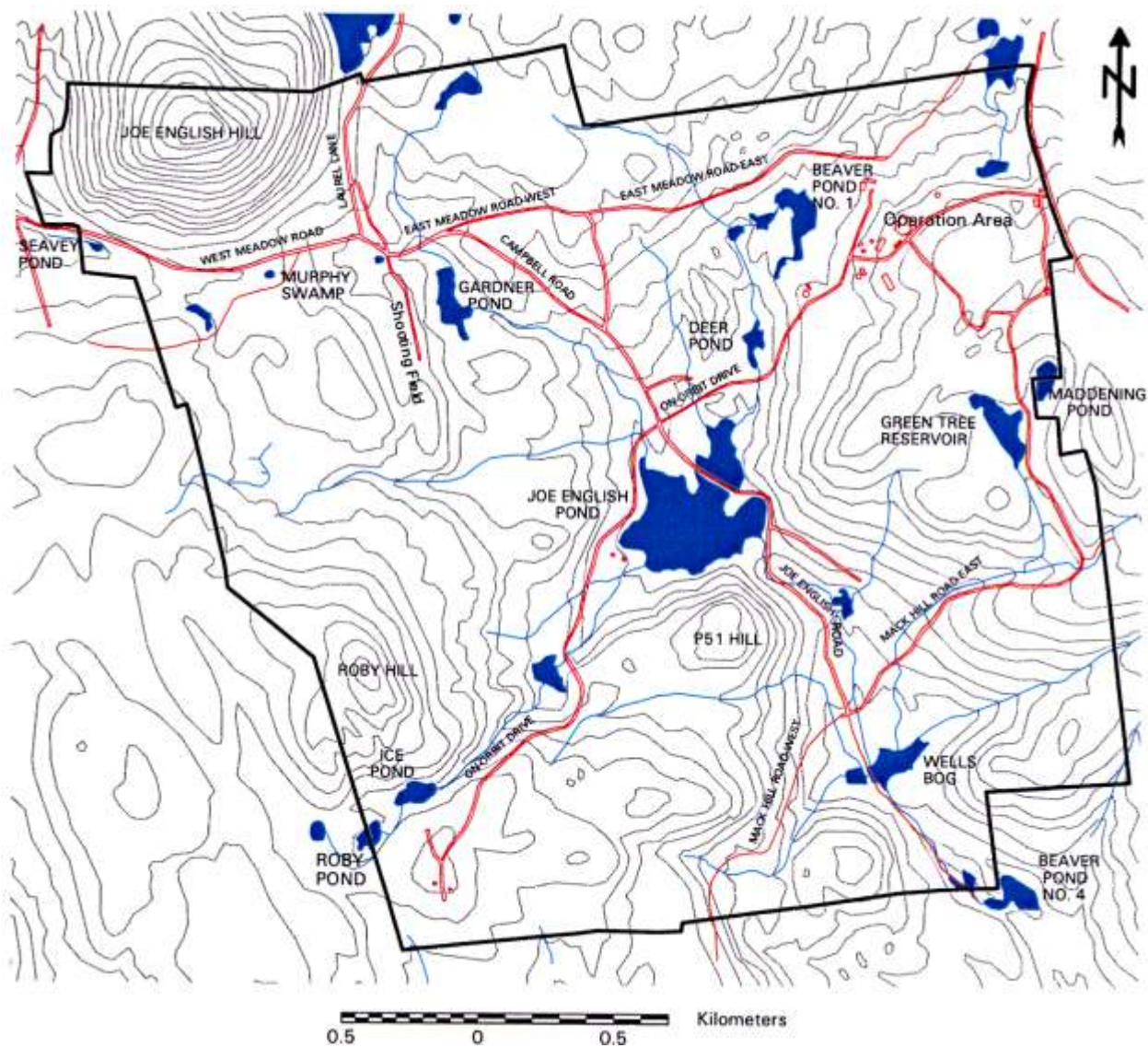


Figure 9. Station Boundaries, Roads, Facilities, and Natural Features on New Boston Air Station, New Hampshire (Source: ANL 1997)

Operations Area. The remainder of NBAFS supports military training exercises, recreation, and natural resource management (ANL 2000).

### 3.2 Climate, Air Quality, and Noise

#### *3.2.1 Climate*

The region around the NBAFS is characterized by a humid continental climate. Precipitation is distributed throughout the year, with no particular wet or dry season. Coastal storms can be a serious weather hazard in southeastern New Hampshire, decreasing in importance northward (Ruffner 1985). Such storms generate very strong winds and heavy rain or snow. Storms of tropical origin affect or threaten New Hampshire about once every 2 to 3 years. Thunderstorms occur 15 to 30 times per year. Ice storms occur in the winter but are usually of short duration. However, a few widespread and prolonged ice storms have occurred. Based on the data for the 9,130 km<sup>2</sup> (3,530 mi<sup>2</sup>) area that includes the NBAFS, less than two tornadoes occur per year. The localized area effected by a tornado averages only 0.29 km<sup>2</sup> (0.11 mi<sup>2</sup>; Ramsdell and Andrews 1986) (ANL 2000).

#### *3.2.2 Air Quality*

The State of New Hampshire Ambient Air Quality Standards (SAAQS) are identical to the National Ambient Air Quality Standards (NAAQS) for six criteria air pollutants: sulfur oxides (as sulfur dioxide [SO<sub>2</sub>]), particulate matter with aerodynamic diameters of ≤10 μm and equal to 2.5 μm (PM<sub>10</sub> and PM<sub>2.5</sub> respectively), carbon monoxide (CO), ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), and lead (Pb) (Sanborn 1998). In 1996, New Hampshire discontinued Pb monitoring because Pb concentrations were well below the NAAQS and at the lowest levels of the detection limit (ANL 2000).

Permitted air pollution sources at NBAFS include two backup generators at the power plant (Building 157) and 15 boilers located in various buildings in the Operations Area.

#### *3.2.3 Noise*

Currently, no quantitative noise-limit regulations exist in New Hampshire (ANL 1999). The U.S. Environmental Protection Agency (EPA) guidelines recommend an L<sub>dn</sub> (the day-night

weighted equivalent sound level) of 55 dBA<sup>1</sup>, which is considered sufficient to protect the public from the effect of broad-band environmental noise in typically quiet outdoor and residential areas (EPA 1974). For protection against hearing loss in the general population from non-impulsive noise, the EPA guidelines recommend an  $L_{eq}$ <sup>2</sup> of 70 dBA or less per day over a 40-year period.

No noise monitoring data are available from the area around the NBAFS site. However, the acoustic environment around the NBAFS site can be considered that of a rural location, having typical residual sound levels of approximately 30 to 35 dBA (Liebich and Cristoforo 1988). The closest off-site residences to the Operations Area occur immediately adjacent to the site boundary along Chestnut Hill Road. Ambient noise levels at these residences would be substantially increased at times when traffic passes by (ANL 2000).

### 3.3 Topography, Geology, and Soils

NBAFS is located within an area of hilly and mountainous terrain. The main physiographic features on NBAFS are Chestnut Hill in the northeastern section, Roby Hill in the southwestern section, and Joe English Hill in the northwestern section. Within the center of the station is Joe English Pond (Figure 8).

The bedrock geology underlying NBAFS consists of Pre-Quaternary metamorphic and igneous rocks. Generally, the bedrock is buried beneath glacial drift. Till is the dominant surficial deposit, composed of an unsorted to poorly sorted mixture of clay, silt, sand, pebble, cobbles, gravel, and boulders. However, swamp deposits and recent alluvium are also present. Glacial striations and drumlins (elongate or oval hills) are present throughout the area, providing evidence of the general north to south glacial movement. Chestnut Hill is one such glacial feature – a drumlin (PES 1995).

Over 90 percent of the soils on NBAFS were formed in glacial till; the remainder formed in outwash plains, kame terraces, or stream valleys. Soils formed in glacial till tend to be fine-textured and dense and contain many stones. Soils covering about one-half of NBAFS are

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<sup>1</sup> dBA is a unit of weighted sound-pressure level, measured by the use of the metering characteristics and the "A" weighting specified in the *American Standard Specification for Sound Level Meters ANSI S1.4-1983 and Amendment S1.4A-1985* (Acoustical Society of America 1983, 1985).

<sup>2</sup>  $L_{eq}$  is the equivalent steady sound level that, if continuous during a specific time period, would contain the same total energy as the actual time-varying sound. For example,  $L_{eq}(1-h)$  is the 1-hour equivalent sound level.

classified as stony or very stony. The soils at NBAFS tend to be highly resistant to erosion if stabilized by vegetative cover. However, the soils have moderate to extreme erosion potential in bare areas due to the fine texture of the soils and steep slopes present in portions of NBAFS. Activities that disturb or remove vegetation are likely to increase the erosion hazard, particularly on slopes (ENSR 1993).

The soils in the project area include: (1) Chatfield-Hollis-Canton complex, 8-15% slopes, and (2) Chatfield-Hollis-Canton complex, 15-25% slopes (Bond and Handler 1981). None of these soils meet the requirements for prime farmland. Depth to bedrock are 25 to 51 cm (10 to 20 in.) for Hollis soils, 51 to 102 cm (20 to 40 in.) for Chatfield soils (ANL 2000).

### 3.4 Water Resources

Most of NBAFS is located within the Joe English Brook watershed. The station contains a number of open waters and stream segments (intermittent and perennial; Figure 9). Within the vicinity of the proposed action there are no well defined drainages and no jurisdictional wetlands (ANL 1990).

The major aquifer system at NBAFS is in the bedrock. Groundwater levels at NBAFS range from 22 m (73 ft) below land surface to flowing artesian conditions near Joe English Pond.

No Federal Emergency Management Agency data are available for floodplains within NBAFS (PES 1995). However, major flood events (i.e., 100- to 500-year flood) would principally affect areas associated with Joe English Pond and Joe English Brook (PES 1995).

### 3.5 Ecological Resources

The NBAFS has been identified as a Category I installation by both the New Hampshire Department of Fish and Game and the U.S. Fish and Wildlife Service. This classification indicates that the NBAFS has habitat suitable for conserving and managing fish and wildlife. An Integrated Natural Resource Management Plan has been prepared to guide management of the natural resources of NBAFS using an ecosystem approach. The relatively high biodiversity supported on NBAFS is attributable to the presence of generally undisturbed lands throughout much of the site and to the types of low-impact activities that occur on the station (ANL 1997).



Two comprehensive surveys have been conducted to determine the habitats and biotic composition of NBAFS—wetland delineations (PES 1996) and a biodiversity survey (ANL 1997). The following discussion of ecological resources emphasizes those resources in and around the project locations.

Most of the developed land at NBAFS (buildings, roads, and parking lots interspersed with mowed lawns and landscaped plantings) is limited to the operations area and the Family camp. The herbaceous cover in these areas are either cultivated lawn grasses in level areas or a variety of planted grasses and forbs on slopes (hard fescue, birdsfoot trefoil, crown vetch, and white clover). In addition to grass, the operations area and family camp includes landscape plantings of native tree and shrub species (e.g., white pine, maples, dogwood, and junipers). The landscaped lawns in the operations area and family camp provide habitat for wildlife. Deciduous and mixed forests are the primary undeveloped habitats in the project area. Northern red oak is the dominant species in the deciduous forest. Other tree species include sugar maple, white oak, black birch, beech, and paper birch (ENSR 1993). In addition to these deciduous trees, mixed forest habitat includes eastern white pine and eastern hemlock in the tree canopy (ANL 1997).

Wildlife species in the project area are typical for the station and region. Commonly encountered species include mourning dove, blue jay, black-capped chickadee, American robin, rufous-sided towhee, dark-eyed junco, house finch, raccoon, coyote, Eastern chipmunk, woodchuck, red squirrel, red-backed vole, and white-tailed deer (ANL 1997).

The threatened, endangered, and rare species known to occur on NBAFS are listed in Table 2 (Appendix A). A discussion of these species and the eight rare natural communities that occur at NBAFS is provided in ANL (1997) and summarized in ANL (1999). None of the rare natural communities are located near the project area. The Blanding's turtle, Eastern Hognose Snake (state threatened) and whip-poor-will are the only rare or listed species that are known to occur near the proposed project area. The Blanding's turtle is typically found in wetland habitats (DeGraaf and Rudis 1986), but is occasionally found in other habitats as they move between wetlands (ANL 1997). The whip-poor-will prefers to nest in open, dry woodland often near openings (ANL 1997). The Eastern Hognose snake is well documented throughout the installation including occasional use of man-made buildings.

### 3.6 Cultural Resources

Archaeological investigations within the Merrimack River system have documented prehistoric sites dating from the Paleo period (10,000-8000 B.C.). The streams and wetlands present at NBAFS and its high natural resource potential made it a suitable location for both temporary single-purpose foraging locations and possible multi-component campsites (i.e., sites containing evidence of several occupational periods). Two prehistoric sites and four isolated finds were recorded at NBAFS during subsurface testing (PAL 1993).

Fifty historic sites occur on NBAFS (24 rural homesteads, 3 industrial complexes, and 15 civic sites [roads and cart-paths, bridges and stone culverts, dams, stone walls, school, and trash dumps] and 8 military [plane crashes, practice ranges, observation towers and other structures]). These sites are all located in the NBAFS Archaeological District, a multi-component district approved by Air Force command and the New Hampshire State Historic Preservation Officer. It is the multi-component nature of district (homesteads and farms, stonewall lined roads and cart-paths, the school site and mills) that add significantly to the districts integrity of design, setting, materials, workmanship, feeling and association. The contributing properties can be found all over the district but are concentrated centrally around Joe English Pond and in the northwest and southeast corners of the facility. A few other contributing properties are clustered together in the southwest corner around Roby and Ice Pond. Historic period roadways link many of the identified contributing properties while the multitudes of stone walls found on the property identify ownership, boundaries, and land uses associated with the agriculture related properties.

The State Historic Preservation Officer (SHPO) within the New Hampshire Division of Historical Resources (NHDHR) has indicated that seven buildings within the Operations Area may contribute to an historic district that is potentially eligible for listing on the *National Register of Historic Places* (Muller 1998).

Past activities at NBAFS have resulted in some impacts to cultural resources. Evidence of looting, erosion, past military training and other damaging activities has been reported at several of the sites. The specific causes of the damages and time that they occurred are not known.

### 3.7 Land Use, Recreation, and Visual Resources

Facilities that support the satellite-tracking operations at NBAFS occupy about 17.7 ha (44 acres) of the 1,144 ha (2,826 acre) site (ANL 1997). Over the years, NBAFS has been restoring the remainder of the land to a natural state, while maintaining a proper balance between natural resource enhancements and recreational and military training use of the station. Facilities located within the operations area include three enclosed satellite dish antennae, satellite-control buildings, and satellite-tracking and communications buildings. Support facilities include maintenance and administration buildings, a fire station, and storage facilities. Enlisted housing dormitories and several home structures are also present. The unimproved portions of NBAFS are not used to actively support mission operations (ANL 1999).

Recreational use of NBAFS is restricted primarily to active and retired military staff and their families and certain members of the public. Numerous active and passive outdoor recreational opportunities are available at NBAFS, including nature watching, fishing, swimming, camping, hiking, rock climbing, hunting, archery, boating, cross-country skiing, ice fishing, ice skating, sledding, and snowmobiling (ANL 1990). Military training could be conducted at any location within NBAFS, including the Operations Area (ANL 1999).

The land immediately surrounding NBAFS is heavily wooded, representing some of the least developed and most rural portions of New Boston, Amherst, and Mont Vernon. However, the primary land use designated for the area is low-density residential use (PES 1995). Low-density, single-family homes on parcels typically over one acre; undeveloped lands; and several active farms (particularly along Chestnut Hill Road and Joe English Road) occur in the immediate vicinity of NBAFS. A computer software company is located opposite the main entrance to the station (ANL 1999).

Because of the limited land area required to support satellite-tracking operations, most of NBAFS provides a natural setting (e.g., the forests, hills, wetlands, and ponds). Visual resources are therefore rated as excellent, with scenic vistas evident from the station's higher elevations.

### 3.8 Socioeconomics

About 150 people are employed by NBAFS (15 military and the remainder civilian or civilian contract employees; PES 1995). Although rural in character, the three communities that surround NBAFS have experienced population growth because of their location within one of the

most rapidly expanding areas of New England. To accommodate this growth, residential development is expected to continue in the neighborhoods surrounding NBAFS. The communities that surround NBAFS represent three of the most affluent communities of the state (all three are ranked in the top 25 of 234 communities in terms of median household income; PES 1995).

## **4. ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION AND ALTERNATIVES**

### ***4.1 Environmental Consequences of the Proposed Action***

Potential impacts from the proposed action that were evaluated in this EA include: (1) air quality impacts; including noise increases; (2) disturbance of land, from excavation, grading, and backfilling; (3) land use alterations and limitations; (4) habitat modification; and (5) damage to subsurface archaeological resources. The demolition contractor would have to comply with all Federal, State, and local regulations pertaining to the environment (e.g., air, noise, solid wastes, water; USAF 2001). Adherence to these regulations would mitigate the potential for adverse demolition impacts. Nevertheless, some environmental impacts would be unavoidable. The following sections discuss these potential environmental impacts and their significance.

#### ***4.1.1 Air Quality and Noise***

Localized, short-term air quality impacts that would occur during demolition include the generation of fugitive dust and engine exhaust emissions. The demolition would remove about 2000 yd<sup>2</sup> of wood, building materials, asphalt and concrete. Averaged over the two-month (approximately) demolition period, the daily processing rate (e.g., about 33 yd<sup>2</sup>) would be low. Also, only a small number of heavy equipment and vehicles would be involved, so total emissions would be rather small. Therefore, the potential impacts on ambient air quality in the vicinity of the NBAFS site would be minor and of short duration. No violations of applicable federal and state ambient air quality standards are expected.

Noise impacts would occur from the use of machinery and vehicles and demolition. Demolition would occur mostly during weekday daytime hours, thus much of the demolition noise would be masked by background noises. Noise impacts associated with demolition activities would be minor and of short duration.

Demolition specifications for this project would minimize air and noise impacts during demolition. Dust barriers would be used to prevent the spread of dust beyond the work area. Water could be used for dust suppression. No burning of materials and debris would be

permitted. Also, demolition vehicles would be required to function properly (e.g., exhaust systems with no leaks). Maximum use would be made of low-noise emission products, as certified by the EPA.

#### *4.1.2 Topography, Geology, and Soils*

Localized terrain changes would result from grading the project area after demolition. Erosion would be negligible due to the smooth grade changes along the proposed route. The use of erosion fences, hay bales, geotextile fabric, sediment basins, diversion ditches, berms, and temporary revegetation, as described in the demolition specifications for this project, would further reduce impacts to soils.

The demolition staging area would be located on a paved or graveled surface. By refueling demolition equipment in this area, the potential for impacts from fuel-handling spills would be minimized. Vehicles and other equipment would be required to be clean and properly operating (e.g., no fuel or hydraulic leaks and motors reasonably clean of excess grease) to prevent leaks. Fuel oil and petroleum storage tanks would be surrounded by appropriately sized earthen berms to contain any spills or leaks. In the event of a spill or leak, response would be in accordance with established Air Force and State regulations.

#### *4.1.3 Water Resources*

Localized minor to negligible increases in turbidity and sedimentation of surface waters in the project vicinity could occur during periods of soil disturbance. The major source for these impacts would be runoff from excavated soil, particularly during inclement weather, but erosion control practices required for this project would prevent significant impacts.

Demolition would not be expected to affect groundwater resources (e.g., change the depth to groundwater, alter groundwater flow direction, affect groundwater recharge, or impact groundwater quality). As discussed in Section 4.1.2, the potential for spills from fuel handling would be minimized through preventative actions and approved spill response procedures.

#### *4.1.4 Ecological Resources*

Impacts to ecological resources would be limited primarily to the immediate demolition area. Dust and other particulates associated with demolition, which could affect adjacent

vegetation, would be produced over a short period of time and would be confined to a narrow corridor. Dust control measures (Section 4.1.1) would minimize any associated impacts.

Wildlife in the immediate project vicinity would be disturbed during demolition by noise and visual disturbances from equipment, blasting, and demolition personnel. These disturbances could cause short distance movements of wildlife, scare birds off their nests, or otherwise disrupt normal wildlife activities. However, because of the temporary and localized nature of these disturbances, their impacts are expected to be negligible.

Minor impacts to wildlife also could result from habitat alteration associated with the proposed action. The project would create 1-2 acres of regularly mowed grass cover within the project area.

Impacts to aquatic and wetland habitats and biota are expected to be temporary, minor, and indirect. No direct impacts (e.g., dredge or fill activities) to jurisdictional wetlands would occur. Demolition practices required by NBAFS would minimize erosion and sedimentation.

Some of the listed and rare wildlife species and neotropical migrant bird species (afforded protection under the Migratory Bird Treaty Act) are distributed widely across the station and could occur in the project area (ANL 1999). The Blanding's turtle, Eastern Hognose Snake and whip-poor-will are the only rare or listed species that have been reported near the project area (Section 3.5). Individuals of these species in the immediate project area could be disturbed during project demolition, but demolition personnel would be notified of their potential occurrence and would be required to notify NBAFS staff if any individuals were observed in the project area. The fact that most of this area is currently developed greatly reduces the potential for impact. Any impacts that would occur would be minor, and would not jeopardize the survival of these species at NBAFS. Some minor benefit could result as the project area would be converted to mowed grass.

The demolition contractor would be responsible for meeting restoration requirements set forth by NBAFS including grading and establishing lawn. An approximately 1-2 acre grass-covered area would be maintained by periodic mowing.

#### *4.1.5 Cultural Resources*

The proposed project would not impact known cultural resources. Earth-moving activities and the use of heavy equipment could potentially encounter previously undiscovered

cultural resources. However, the potential to discover cultural resources is very low as the project area has previously been subjected to disturbance. Nevertheless, if cultural resource materials are unexpectedly encountered during demolition, operations would cease in the immediate area of the discovery until permission to resume work is given by NBAFS. Demolition activities would not affect potentially eligible Cold War Era buildings.

#### *4.1.6 Land Use, Recreation, and Visual Resources*

The proposed project would result in a localized minor short-term loss followed by a long-term minor net gain in natural resources (Section 4.1.4). This would not conflict with any plans or goals for natural resource management at NBAFS. No changes in the satellite-tracking mission would occur. Demolition would be conducted in a manner that would minimize possible interference with normal station operations (e.g., the staging area would be located at an NBAFS-approved area).

Short-term visual effects during the demolition would consist of views of demolition personnel and equipment. Removal of buildings, utilities, asphalt, and other items associated with the buildings would improve compatibility of views with the surrounding landscape. The proposed project would have no effects on land use in the area surrounding NBAFS.

#### *4.1.7 Socioeconomics*

The proposed action would require about 1000 man-hours of labor over a period of about two months at a cost of approximately of \$250,000. All demolition activities would be confined to NBAFS. The nature and duration of the proposed demolition project would not cause any significant adverse socioeconomic impacts to the local population, labor force, or economy. Because only a small work force would be required, impacts on the capacities of public services (e.g., schools, police, fire protection) would not occur. The demolition project would provide minor employment benefits and associated increase in cash flow to the local economy.

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" (February 11, 1994), requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. No environmental justice impacts would be expected to either minority or low-



income populations, since the proposed project would have no impact on the population immediately surrounding NBAFS.

#### *4.1.8 Health and Safety*

Health and safety issues related to the demolition routinely center on the potential or perceived effects from exposure to asbestos, lead paint, and other hazardous materials; no hazardous materials are expected to be encountered. The potential would exist, albeit small, for serious injuries or fatalities to workers during demolition. The contractor would be responsible for complying with all Occupational Safety and health Act (OSHA) requirements and for instructing employees on accident prevention and safety.

#### *4.2 Irreversible and Irretrievable Commitment of Resources*

Resources that would be committed irreversibly or irretrievably during demolition of Buildings 122, 144, 153, 501 and 502 would include materials that could not be recovered or recycled and materials or resources that would be consumed or reduced to irrecoverable forms. Use of fuel, oil, and other materials during demolition would constitute an irreversible and irretrievable commitment of those resources.

#### *4.3 Relationship between Short-Term Uses and Long-Term Productivity*

This section evaluates the effect of the proposed short-term use of the environment for the demolition of Buildings 122, 144, 153, 501 and 502 on the long-term productivity of this same land and its resources. Demolition of the buildings would eliminate costly maintenance requirements while providing higher quality habitat than the current habitat (asphalt and buildings).

Most adverse impacts to the environment would be temporary (e.g. increased noise). In the event of deactivation of the installation, the affected area could be reclaimed to a natural state.

The only short-term socioeconomic impacts would be those associated with the employment of demolition workers over a period of about two months. Long-term socioeconomic impacts would be negligible.

#### 4.4 Cumulative Impacts

Cumulative impacts are those impacts to the environment that result from the incremental effect of the proposed project when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. No significant cumulative effects are anticipated for either the proposed or alternative actions.

The potential impact on ambient air quality from demolition emissions (e.g., fugitive dust and engine exhaust emissions) would be a negligible short-term increase in emissions occurring from other activities at NBAFS and within Hillsborough County. However, emissions associated with the proposed action would be mostly confined to the immediate project area since most emissions would be released near ground level. Emission rates would be low, so potential impacts on ambient air quality would be minor. Under the proposed and alternative actions, some demolition noise could be detectable. However, these activities would occur infrequently, so cumulative noise impacts would be localized and temporary in nature.

#### 4.5 Environmental Consequences of the No Action Alternative

Under the No Action Alternative there would be no additional consequences expected in any of the environmental areas described in sections 4.1-4 with the exception of the creation of a possible attractive nuisance from decaying buildings that may be attractive to children.

## 5. REFERENCES

Acoustical Society of America, 1983, *American National Standard Specification for Sound Level Meters*, ANSI S1.4-1983, New York, N.Y., Feb.

Acoustical Society of America, 1985, *American National Standard Specification for Sound Level Meters*, ANSI S1.4A-1985, Amendment to ANSI S1.4-1983, New York, N.Y., June.

ANL: see Argonne National Laboratory.

Argonne National Laboratory, 1990, *Environmental Assessment for the Conduct of Military Training, New Boston Air Force Station, New Hampshire*, prepared by Argonne National Laboratory, Environmental Assessment and Information Sciences Division, Argonne, Ill. for Department of the Air Force Headquarters, Air Force Space Command, Environmental Planning Division, Peterson Air Force Base, Colo., July.

Argonne National Laboratory, 1997, *Biodiversity Survey of New Boston Air Station, New Hampshire*, Final Report, Argonne National Laboratory, Environmental Assessment Division, Argonne, Ill., Sept.

Argonne National Laboratory, 1999, *Environmental Assessment of Military Training Activities at New Boston Air Station, New Hampshire*, prepared by Argonne National Laboratory, Environmental Assessment Division, Argonne, Ill. for U.S. Department of the Air Force, New Boston Air Station, NH, May.

Argonne National Laboratory, 2000, *Environmental Assessment for Construction of Phase II of an Underground Electrical and Communications Distribution System at New Boston Air Force Station New Hampshire*, prepared by Argonne National Laboratory, Environmental Assessment Division, Argonne, Ill. for U.S. Department of the Air Force, New Boston Air Station, NH, May 2000.

Bond, R.W., and J.F. Handler, 1981, *Soil Survey of Hillsborough County, New Hampshire, Eastern Part*, U.S. Department of Agriculture, Soil Conservation Service, Oct.

DeGraaf, R.M., and D.D. Rudis, 1986, *New England Wildlife: Habitat, Natural History, and Distribution*, U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station, General Technical Report NE-108.

ENSR: see ENSR Consulting and Engineering.

ENSR Consulting and Engineering, 1993, *Natural Resources Management Plan for New Boston Air Force Station New Hampshire*, Prepared for U.S. Army Corps of Engineers, New England Division, July.

EPA: see U.S. Environmental Protection Agency.

Liebich, R.E., and M.P. Cristoforo, 1988, "The Use of Audibility Analysis to Minimize Community Noise Impact of Today's Smaller Generation Facilities: Located near Residential Areas," presented at American Power Conference 50th Annual Meeting, Chicago, Ill., Apr.

Loflin, B.G., and R.S. Grumet, 1996, *United States Air Force Cultural Resources Servicewide Overview Project: New Boston Air Station, Air Force Space Command, Hillsborough County, New Hampshire*, National Park Service Resource Stewardship and Partners Team, Northeast Field Area, Philadelphia, Penn., and Georgia Trust for Historic Preservation, Feb.

Muller, N.C., 1998, Letter from N.C. Muller (State Historic Preservation Officer, New Hampshire Division of Historical Resources) to S. Najjar (Natural Resources Planner, 23 SOPS/MAFCVN, New Boston Air Station), Aug. 28.

PAL: see Public Archaeology Laboratory Inc.

Parsons Engineering Science, Inc., 1995, *Preliminary Final Environmental Assessment for Unexploded Ordnance Clearance at Joe English Pond New Boston Air Force Station, New Hampshire*, prepared for New Boston Air Force Station, N.H., and 50th Space Wing (AFSPC), Falcon AFB, Colo., by Parsons Engineering Science, Inc., Boston, Mass, June.

Parsons Engineering Science, Inc., 1996, *Wetlands Delineation Report*, prepared for New Boston Air Force Station, N.H., and 50th Space Wing (AFSPC), Falcon AFB, Colo., by Parsons Engineering Science, Inc., Mass., Sept.

Parsons Engineering Science, Inc., 1998, *Survey and Evaluation of Cold War Resources, New Boston Air Station, New Boston, New Hampshire (Draft)*, prepared for 50th Space Wing (AFSPC), Falcon AFB, Colo., by Parsons Engineering Science, Inc., Mass, March.

PES: see Parsons Engineering Science, Inc.

Public Archaeology Laboratory, Inc., 1993, *Historic and Archaeological Reconnaissance/Inventory Survey, Cultural Resources Management Plan, New Boston Air Force Station, New Boston, Mont Vernon, Amherst, New Hampshire*, prepared for U.S. Army Corps of Engineers, New England Division, Waltham, Mass., June.

Ramsdell, J.V., and G.L. Andrews, 1986, *Tornado Climatology of the Contiguous United States*, NUREG/CR-4461 and PNL-5697, Pacific Northwest Laboratory, prepared for U.S. Nuclear Regulatory Commission, May.

Ruffner, J.A. (editor), 1985, *Climates of the States: National Oceanic and Atmospheric Administration Narrative Summaries*, 3rd edition, Gale Research Company, Detroit, Mich.

Sanborn, P., 1998, personal communication from P. Sanborn (Department of Environmental Services, Air Resources Division, Concord, N.H.) to Y.-S. Chang (Argonne National Laboratory, Argonne, Ill.), Nov. 19.

U.S. Environmental Protection Agency, 1974, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, EPA-550/9-74-004, Office of Noise Abatement and Control, Washington, D.C., March.

Watford, R., 1988, *Preservation Plan, New Boston Air Force Station, New Hampshire*, prepared by Department of Anthropology, Northern Arizona University, Flagstaff, Ariz., Aug.

## **6. LIST OF PREPARERS**

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Stephen Najjar	MS Natural Resources 13 Years Natural Resources Management	Responsible for all phases of EA preparation
Jonathan Ruhan	Archeologist	Responsible for all cultural resource sections

## **7. AGENCIES, ORGANIZATIONS, AND PERSONS CONTACTED**

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## APPENDIX A. LISTED AND RARE SPECIES ON NEW BOSTON AIR STATION

**Table 3. Federally Listed, State Listed, and Rare Species of Plants and Animals Found on New Boston Air Station, New Hampshire.<sup>a</sup>**

Common Name	Scientific Name	Federal Status	State Status	State Rank
<b><u>Plants</u></b>				
Fern-leaved false foxglove	<i>Aureolaria pedicularia</i> var <i>intercedens</i>	- <sup>b</sup>	LE	S1
<b><u>Moths</u></b>				
No common name	<i>Aphareta purpurea</i>	-	-	S2
Orange-spotted idia	<i>Idia diminuendis</i>	-	-	S2S4
<b><u>Butterflies and Skippers</u></b>				
Appalachian brown	<i>Satyrodes appalachia</i>	-	-	S1?
Delaware skipper	<i>Atrytone logan</i>	-	-	S3S4
Mulberry wing	<i>Poanes massasoit</i>	-	-	S1S3
Little glassywing	<i>Pompeius verna</i>	-	-	SU
<b><u>Reptiles</u></b>				
Blanding's turtle	<i>Emydoidea blandingii</i>	-	-	S3
Eastern hognose snake	<i>Heterodon platirhinos</i>	-	LT	S3
<b><u>Birds</u></b>				
Pied-billed grebe	<i>Podilymbus podiceps</i>	-	LE	S1B/ZN
American bittern	<i>Botaurus lentiginosus</i>	-	-	S3B
Osprey	<i>Pandion haliaetus</i>	-	LT	S2B/ZN
Bald eagle	<i>Haliaeetus leucocephalus</i>	LT	LE	S1
Northern harrier	<i>Circus cyaneus</i>	-	LT	S2B
Cooper's hawk	<i>Accipiter cooperi</i>	-	LT	S2B/ZN
Whip-poor-will	<i>Caprimulgus vociferus</i>	-	-	S3B

<sup>a</sup> Federal and state listing status codes and state ranks are defined in Table A.2 (Appendix A). State ranks do not confer any official or legal status to a species. These ranks are assigned by the New Hampshire Natural Heritage Inventory to provide information on the population status of species within the state.

<sup>b</sup> A dash (-) indicates that the status is not applicable to that species. A question mark (?) indicates that the status shown is expected, but not known with certainty.

Source: ANL (1997).

**Table 4. Species Listing Status and Ranking Codes Used by the Federal Government and the State of New Hampshire.**

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**Federal Listing Status Codes<sup>1</sup>**

LE	Listed as Endangered Species in the List of Endangered and Threatened Wildlife and Plants under the provisions of the Endangered Species Act. Defined as any species which is in danger of extinction throughout all or a significant portion of its range.
PE	Proposed for addition to the List of Endangered and Threatened Wildlife and Plants as Endangered Species.
LT	Listed as Threatened Species. Defined as any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.
PT	Proposed for listing as Threatened Species.
C	Candidate Species for addition to the list of Endangered and Threatened Wildlife and Plants. Taxa for which the USFWS currently has substantial information on hand to support the biological appropriateness of proposing to list the species as endangered or threatened.
LTSA	Threatened due to similarity of appearance.
NL	Not currently listed, nor currently being considered for addition to the List of Endangered and Threatened Wildlife and Plants.

**State Listing Status Codes<sup>2</sup>**

LE	Endangered; those native species whose prospects for survival in New Hampshire are in immediate danger because of a loss or change in habitat, over-exploitation, predation, competition, disease, disturbance or contamination. Assistance is needed to ensure continued existence as a viable component of the State's wildlife community.
LT	Threatened; those species which may become endangered if conditions surrounding them begin, or continue to deteriorate.
SC	Special concern; those species which do not meet the definition of threatened or endangered species but, because of their beauty, commercial value, excessive collecting, or other factors, require monitoring or regulation.

**State Rank Codes<sup>3</sup>**

S1	Critically imperiled because of extreme rarity (5 or fewer occurrences, or very few remaining individuals), or because of some factor of its biology making it especially vulnerable to extinction.
S2	Imperiled because of rarity (6 to 20 occurrences), or because of other factors demonstrably making it very vulnerable to extinction throughout its range.
S3	Either very rare and local throughout its range, or found locally (even abundantly at some of its locations) in a restricted range, or vulnerable to extinction throughout its range because of other factors; in the range of 21 to 100 occurrences.
S4	Apparently secure, though it may be quite rare in parts of its range, especially at the periphery.

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**Table 2 (continued).**

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**State Rank Codes<sup>3</sup> (continued)**

- |    |  |
|----|--|
| S5 | Demonstrably secure, though it may be quite rare in parts of its range, especially at the periphery. |
| SU | Possibly in peril, but status uncertain; more information needed.                                    |
| SH | Historically known; may be rediscovered.   |

**State Rank Modifiers**

- |   |  |
|---|--|
| A | Accidental in the state; including species (usually birds or butterflies) recorded very infrequently, hundreds or thousands of miles outside their usual range.  |
| B | Breeding status for a migratory species. Example: S1B, SZN - breeding occurrences for the species are ranked S1 (critically imperiled) in the state, nonbreeding occurrences are not ranked in the state.      |
| E | An exotic established in the state; may be native in nearby regions.   |
| N | Non-breeding status for a migratory species. Example: S1B, SZN - breeding occurrences for the species are ranked S1 (critically imperiled) in the state, non-breeding occurrences are not ranked in the state. |
| Z | Ranking not applicable.  |
| ? | Ranking suspected, but uncertain.  |
- 

<sup>1</sup>List maintained by the U.S. Fish and Wildlife Service.

<sup>2</sup>List maintained by the New Hampshire Department of Fish and Game

<sup>3</sup> State species ranking codes do not confer any official or legal status to a species. These ranks are developed by the New Hampshire Natural Heritage Inventory to provide information on the population status of species within the state.

## APPENDIX B. CORRESPONDENCE



DEPARTMENT OF THE AIR FORCE  
50TH SPACE WING (AFSPC)

MEMORANDUM FOR NH DIVISION OF HISTORICAL RESOURCES  
ATTN: ELIZABETH MUZZEY  
STATE HISTORIC PRESERVATION OFFICER  
STATE OF NH DEPARTMENT OF CULTURAL AFFAIRS  
19 PILLSBURY STREET BOX 2043  
CONCORD NH 03302-2043

FROM: 23 SOPS/MA  
317 Chestnut Hill Road  
New Boston AFS NH 03070-5125

SUBJECT: Finding of No Historic Properties Affected

1. Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, we are requesting comments from your office regarding the United State Air Force proposal to remove five non historic buildings and construct one new building. All proposed work is located within the New Boston Air Force Station Archaeological District, New Boston Air Force Station (NBAFS) in Hillsborough County, New Hampshire.

2. The proposed action requires demolition and removal of five existing non historic buildings. These buildings were all constructed less than 50 year ago and do not meet any of the four National Register of Historic Places evaluation criteria (see the attached photographs of each building).

a. Building 122 is the family campground pavilion constructed in 1960 .

(1) Although this building is within the margin for acceptable age, as stated above it does not meet any of the evaluation criteria and does not contribute to the NBAFS Archaeological District.

b. Building 144 is an open front metal storage shed constructed in 1974.

c. Building 153 is a mobile home type trailer constructed in 1995.

d. Building 501 is a prefabricated home used for base housing, constructed in 1988.

e. Building 502 is a prefabricated home used for base housing, constructed in 1988.

(1) Although Buildings 501 and 502 make the tail end of the Cold War Period, they are not properties that contribute to that historic theme.

3. No other historic properties are located within the Area of Potential Effect (APE), for the demolition and removal of these buildings. Real property records are available for all five buildings and engineering plans are available for Buildings 144, 501 and 502.
4. A separate task is to construct a new 2,160 sq. ft. pre-manufactured metal storage shed. The building as described in the current project plans will be divided into three separate bays.
  - a. This building is to be located within the existing excavated pad site of Building 133 (see attachment 3, site options).
5. On the basis of the enclosed information we request your concurrence that the proposed demolition projects and construction will result in a finding of "no historic properties affected" (in accordance with 800.4 (d)). If you have any questions regarding this matter, please contact Mr. Steve Najjar Natural Resources Planner, at (603) 471-2426.

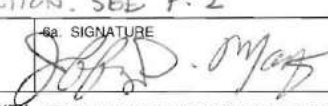
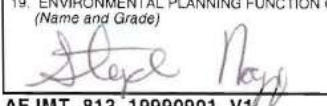


TIMOTHY E. FRANK, Capt, USAF  
Support Officer

Attachment:

1. Building location map
2. Building photographs
3. Siting options for new construction

# **APPENDIX C. REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS (AF FORM 813)**

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS		Report Control Symbol RCS:
INSTRUCTIONS: Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).		
<b>SECTION I - PROPONENT INFORMATION</b>		
1. TO (Environmental Planning Function) <del>SECRET</del> 23 SOPS/CECB	2. FROM (Proponent organization and functional address symbol) 23 SOPS/CECB	2a. TELEPHONE NO. 471-2434
3. TITLE OF PROPOSED ACTION Demolition of New Boston Air Force Station Facilities 122, 153, 501 and 502		
4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need date) Facilities contain extensive deterioration and repairs are non-justifiable		
5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) (Provide sufficient details for evaluation of the total action.) PROPOSED ACTION IS DEMOLITION AS SHOWN ON THE ATTACHED SKETCHES. ONLY ALTERNATIVE IS NO ACTION. SEE P. 2		
6. PROPONENT APPROVAL (Name and Grade) Jeffrey D Magaw YF-02 USAF AFSPC 23 SOPS/CECB	6a. SIGNATURE 	6b. DATE 12/27/07
<b>SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY.</b> (Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U = unknown effect)		
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE (Noise, accident potential, encroachment, etc.)	<input type="checkbox"/> + <input checked="" type="checkbox"/> 0 <input type="checkbox"/> - <input type="checkbox"/> U	
8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)	<input type="checkbox"/> + <input checked="" type="checkbox"/> 0 <input type="checkbox"/> - <input type="checkbox"/> U	
9. WATER RESOURCES (Quality, quantity, source, etc.)	<input type="checkbox"/> + <input checked="" type="checkbox"/> 0 <input type="checkbox"/> - <input type="checkbox"/> U	
10. SAFETY AND OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.)	<input type="checkbox"/> + <input checked="" type="checkbox"/> 0 <input type="checkbox"/> - <input type="checkbox"/> U	
11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation, solid waste, etc.)	<input type="checkbox"/> + <input checked="" type="checkbox"/> 0 <input type="checkbox"/> - <input type="checkbox"/> U	
12. BIOLOGICAL RESOURCES (Wetlands/floodplains, threatened or endangered species, etc.)	<input type="checkbox"/> + <input checked="" type="checkbox"/> 0 <input type="checkbox"/> - <input type="checkbox"/> U	
13. CULTURAL RESOURCES (Native American burial sites, archaeological, historical, etc.)	<input type="checkbox"/> + <input checked="" type="checkbox"/> 0 <input type="checkbox"/> - <input type="checkbox"/> U	
14. GEOLOGY AND SOILS (Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)	<input type="checkbox"/> + <input checked="" type="checkbox"/> 0 <input type="checkbox"/> - <input type="checkbox"/> U	
15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)	<input type="checkbox"/> + <input checked="" type="checkbox"/> 0 <input type="checkbox"/> - <input type="checkbox"/> U	
16. OTHER (Potential impacts not addressed above.)	<input type="checkbox"/> + <input checked="" type="checkbox"/> 0 <input type="checkbox"/> - <input type="checkbox"/> U	
<b>SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION</b>		
17. <input type="checkbox"/> PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # _____; OR <input checked="" type="checkbox"/> PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.		
18. REMARKS  may need stormwater notification		
19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (Name and Grade) 	19a. SIGNATURE Stephen Noyes	19b. DATE 1/7/08

AF IMT 813, 19990901, V1

THIS FORM CONSOLIDATES AF FORMS 813 AND 814. PREVIOUS EDITIONS OF BOTH FORMS ARE OBSOLETE.

PAGE 1 OF 4 PAGE(S)

SEE TWO ATTACHED SKETCHES. RELATED PROJECT NUMBERS  
ARE:

RNGF 253670

RNGF 253671

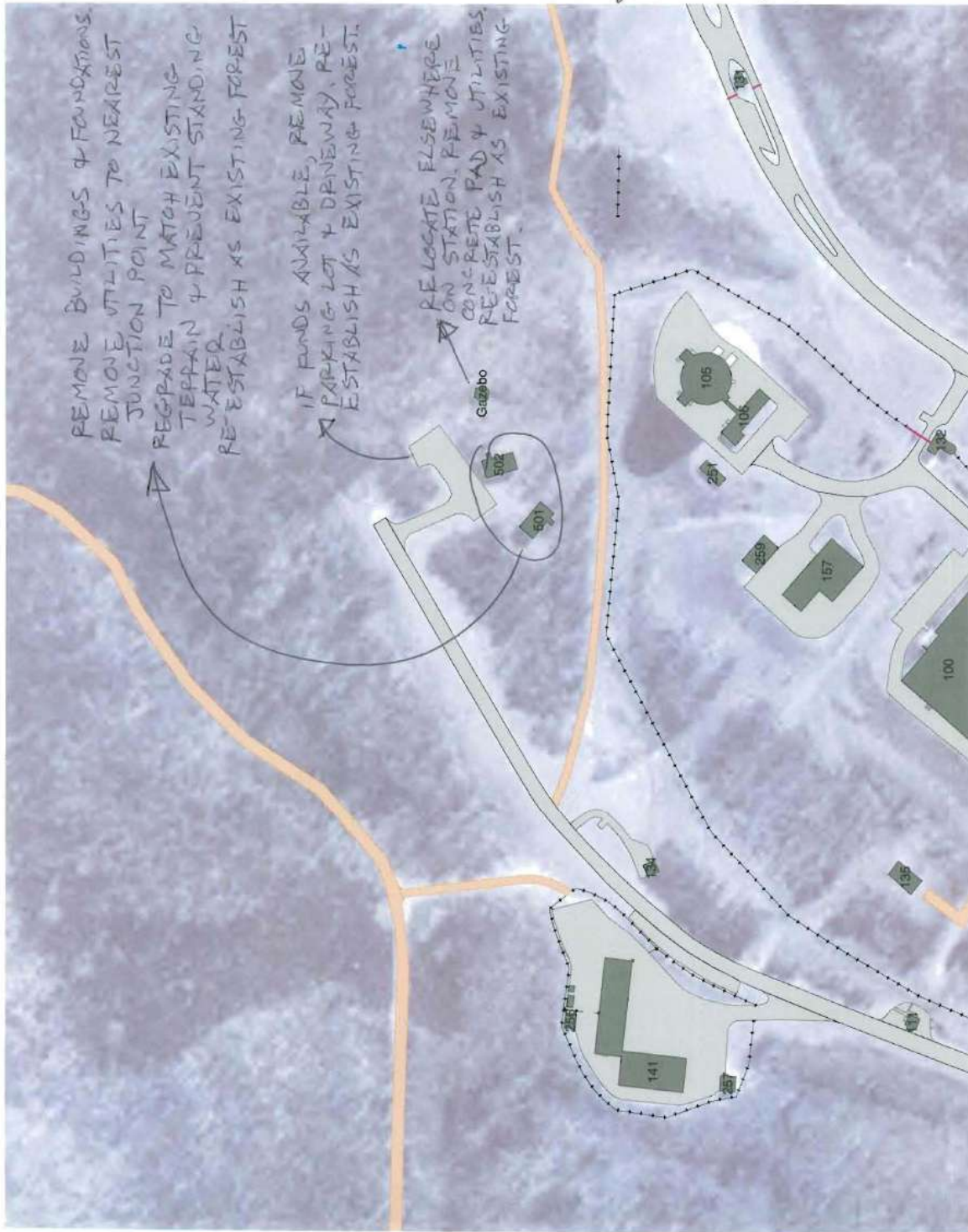
RNGF 041008

RNGF 071062

J. D. May 12/27/07



*Handwritten signature* 12/27/07



John D. May 12/27/07

