



Appendix G
Draft Coastal Consistency Determination

**DRAFT COASTAL CONSISTENCY DETERMINATION FOR
NATIONAL MISSILE DEFENSE ACTIVITIES
ON EARECKSON AIR STATION (SHEMYA ISLAND), ALASKA**

INTRODUCTION

The Coastal Zone Management Act of 1972, as amended, states that each Federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved coastal management programs.

The Alaska Coastal Management Act of 1977, as amended, and the subsequent Alaska Coastal Management Program set forth policy, guidelines, and standards to be used for the review of projects. The state's coastal management districts develop more specific policies for specific sections of Alaska's coast. Once approved by the state and the Federal government, the district programs become an integral part of the Alaska Coastal Management Program.

The following consistency determination for the National Missile Defense (NMD) program activities at Eareckson Air Station (Shemya Island) is based on the analysis in the NMD Deployment Environmental Impact Statement (EIS). Planned activities for NMD on Eareckson AS include the construction and operation of an X-Band Radar (XBR), In-Flight Communications System (IFICS) Data Terminal, and potential fiber optic cable landing on the island. This consistency determination is only for those activities on Eareckson AS. The proposed fiber optic cable line along the Aleutian Islands from Whittier or Seward to Eareckson AS for the NMD program is still under study and there is currently not enough information to provide a detailed environmental analysis for a coastal consistency review. In addition, other methods of communication with Eareckson AS are under study such as satellites; therefore, the installation of the fiber optic cable may not be required for NMD. If it is determined that a fiber optic cable is required, a formal coastal consistency determination would be conducted. In addition, once the location has been finalized, the appropriate Federal, state, and local environmental permits will be obtained prior to the start of construction. These permits could be associated with wetlands destruction, dredge and fill material, water quality, and air quality.

The Alaska Coastal Management Program identifies 12 primary categories that are to be used in the consistency determination: coastal development; subsistence; recreation; energy facilities; transportation and utilities; fish and seafood processing; timber harvest and processing; mining and mineral processing; geophysical hazard areas; habitats; air, land, and water quality; and historic, prehistoric, and archaeological

resources. It has been determined that the deployment of the NMD system is consistent to the maximum extent practicable with the Alaska Coastal Management Program. Appendix A evaluates the consistency of the NMD program with the requirements of each of the categories noted above. Appendix B evaluates the consistency with the local district policies.

The remainder of this document provides more detailed information on NMD program activities and the environmental consequences. Appendix C provides those pertinent sections from the NMD Deployment EIS regarding Eareckson AS, including the project description, affected environment, and environmental consequences. Appendix D and E provide an environmental analysis for the IFICS Data Terminal, and fiber optic cable landing on Eareckson AS, respectively. Appendix F provides agency consultation letters.

APPENDIX A

EVALUATION OF ALASKA COASTAL MANAGEMENT STANDARDS FOR THE NATIONAL MISSILE DEFENSE PROGRAM ACTIVITIES ON SHEMYA ISLAND

6 AAC 80.040 COASTAL DEVELOPMENT

Districts and state agencies planning for and approving development in coastal areas shall give priority in the following order to:

- (1) water-dependent uses and activities;
- (2) water-related uses and activities; and
- (3) uses and activities which are neither water-dependent nor water-related for which there is no feasible and prudent inland alternative to meet the public need for the use or activity.

1. Is the activity located in a freshwater or saltwater shoreline? **Yes, the fiber optic cable line only. The remainder of the activities would occur on the inland parts of the island.**
2. Is the activity water-dependent or water-related? **No**

Evaluation

The XBR and IFICS Data Terminal would not occur in a freshwater or saltwater shoreline; however, the proposed fiber optic cable from Whittier or Seward, Alaska would cross the shoreline on Shemya Island.

6 AAC 80.050 GEOPHYSICAL HAZARD AREAS

- (a) District and state agencies shall identify known geophysical hazards areas and areas of high development potential in which there is a substantial possibility that a geophysical hazard may occur.
- (b) Development in areas identified under (a) of this section may not be approved by appropriate state or local authority until siting, design, and construction measures for minimizing property damage and protecting against loss of life have been provided.

1. Is this activity located in a geophysical hazard area? **Yes**
 - a. If yes, what measures have been taken to minimize property damage and protect against the loss of life?

Evaluation

Shemya Island is in seismic zone 4 and is subject to a high probability of severe earthquake ground shaking during the life of the NMD elements. The XBR, IFICS Data Terminal, and fiber optic cable would be constructed taking into account seismic and wind conditions found on Shemya Island.

6 AAC 80.060 RECREATION

- (a) Districts shall designate areas for recreational use. Criteria for designation of areas of recreational use area
 - (1) the area receives significant use by persons engaging in recreational pursuits or is a major tourist destination; or
 - (2) the area has potential for high quality recreational use because of physical, biological, or cultural features.
- (b) District and state agencies shall give high priority to maintaining and, where appropriate, increasing public access to coastal waters.

- 1. Is the activity within a designated recreation area? **No**
- 2. Does the activity negatively affect public access to coastal waters?
No

Evaluation

Eareckson AS has restricted access to mission-related personnel; no public recreation or tourism is currently permitted. Deployment of the NMD system would not impact any areas in which public recreation could occur.

6 AAC 80.080 TRANSPORTATION AND UTILITIES

- (a) Transportation and utility routes and facilities in the coastal area must be sited, designed, and constructed so as to be compatible with district programs.
- (b) Transportation and utility routes and facilities must be sited inland from beaches and shorelines unless the route or facility is water-dependent or no feasible and prudent inland alternative exists to meet the public need for the route or facility.

- 1. Have you contacted the coastal district where the project will be located? **Yes**
- 2. Are transportation and utility routes and facilities sited inland from beaches or shorelines? **No**
 - If no, is the route or facility water-dependent? **Yes**

- If no, please explain how the activity is consistent with this standard:

Evaluation

Only the proposed fiber optic cable route is water-dependent, all other utility routes would be inland from the beach. The proposed fiber optic cable would be from Whittier or Seward to Shemya Island. The cable would only disturb a small area and after construction would not impact the shoreline area.

6 AAC 80.100 TIMBER AND HARVEST PROCESSING

AS 41.17 Forest Resources and Practices, and the regulations and procedures adopted under that chapter with respect to the harvest and processing of timber, are incorporated into the Alaska coastal management program and constitute the components of the coastal management program with respect to those purposes.

1. Does the activity involve the harvest or processing of timber? **No**

6 AAC 80.110 MINING AND MINERAL PROCESSING

1. Mining and mineral processing in the coastal area must be regulated, designed, and conducted so as to be compatible with the ACMP standards contained in this questionnaire, adjacent uses and activities, statewide and national needs, and district programs.

Evaluation

No mining or mineral process would be conducted as part of the NMD program.

2. Sand and gravel resources may be extracted from coastal waters, intertidal areas, barrier islands, and spits, when there is no feasible and prudent alternative to coastal extraction which will meet the public need for the sand or gravel.

Evaluation

No sand or gravel resources would be obtained from coastal waters, intertidal areas, barrier islands, and spits.

6 AAC 80.120 SUBSISTENCE

Districts and state agencies shall recognize and assure opportunities for subsistence usage of coastal areas and resources. Districts may designate areas as subsistence zones in which subsistence uses and activities have priority over all nonsubsistence uses and activities.

Evaluation

Eareckson AS is exempt from subsistence uses because of restricted access. The proposed fiber optic cable landing area on Shemya Island is not used for subsistence purposes.

6 AAC 80.130 HABITATS

The following habitats must be managed so as to maintain or enhance the biological, physical, and chemical characteristics of the habitat which contribute to its capacity to support living resources:

- (1) offshore areas;
- (2) estuaries;
- (3) wetlands and tideflats;
- (4) rocky island and seacliffs;
- (5) barrier islands and lagoons;
- (6) exposed high energy coast;
- (7) rivers, streams, and lakes; and
- (8) important upland habitat.

The following standards must be considered if the project impacts any of the habitats listed above:

1. Offshore areas must be managed as fisheries conservation zone so as to try to maintain or enhance the state's sport, commercial, and subsistence fishery.

Evaluation

The proposed project would not impact fisheries conservation zones or impact the state's sport, commercial, and subsistence fishery.

2. Estuaries must be managed so as to assure adequate water flow, natural circulation patterns, nutrients, and oxygen levels, and avoid the discharge of toxic wastes, silt, and destruction of productive habitat.

Evaluation

No estuaries would be impacted by the NMD program activities on Shemya Island.

3. Wetlands and tideflats must be managed so as to assure adequate water flow, nutrients, and oxygen levels and avoid adverse effects on natural drainage patterns, destruction of important habitat, and discharge of toxic substances.

Evaluation

Construction of the NMD system has the potential to impact up to 53 acres of wetlands on the interior part of the island. Since most of the interior portion of the island consists of wetlands, avoidance is not possible. The Corps of Engineers and State of Alaska would be consulted and the necessary 401 and 404 permits obtained. During the permit process the appropriate mitigation measures would be developed. Initial USFWS mitigation measures to address wetlands impacts include reintroduction of the Evermann's Rock Ptarmigan to Agattu from Attu or studying population and distribution of Cormorants in the Near Islands. The USFWS has indicated that restoration of habitat on the island is not appropriate because of potential bird aircraft strike hazard and the previous ground disturbance of the island.

4. Rocky islands and seacliffs must be managed so as to avoid the harassment of wildlife, destruction of important habitat, and the introduction of competing or destructive species and predators

Evaluation

There would be no construction or operation activities on rocky islands or seacliffs. General construction activities would occur well inland from the coast line and would result in no impact to marine species. Limited blasting for construction fill at Seal Rock Quarry on Shemya Island would be approximately 2,586 meters (8,484 feet) from a Steller sea lion haul-out area. There is the potential that blasting noise could cause the Steller sea lion to temporarily abandon its haul-out places. However, the NMFS concurred with a March 24, 2000 report on blasting effects at the Seal Rock quarry: "We agree with your determination that blasting, construction, and operation of the project would have 'no effect' on Steller sea lions near the project area." The report (Subterra, Inc., 2000) also provides information related to minimizing blasting effects on the environment. Potential construction of the fiber optic cable may temporarily affect marine species; however, once the cable is laid no impacts would be expected. NMD will implement recommendations from

the USFWS to avoid the introduction of any alien species to Shemya Island.

5. Barrier islands and lagoons must be managed so as to maintain adequate flows of sediments, detritus, and water, avoid the alteration or redirection of wave energy which would lead to the filling in of lagoons or the erosion of barrier islands, and discourage activities which would decrease the use of barrier island by coastal species including polar bears and nesting birds.

Evaluation

No barrier islands or lagoons would be impacted by NMD activities on Shemya Island.

6. High energy coast must be managed by assuring the adequate mix and transportation of sediments and nutrients and avoiding redirection of transport processes and wave energy.

Evaluation

No activities would take place on a high energy coast that would change the adequate mix and transportation of sediments and nutrients.

7. Rivers, streams, and lakes must be managed to protect natural vegetation, water quality, important fish or wildlife habitat and natural water flow.

Evaluation

NMD activities on Shemya Island would not affect any rivers, streams, or lakes. Appropriate measures would be taken to limit site soil erosion.

8. Activities and uses in the coastal upland habitats that significantly affect the above noted habitats, including upland habitats, are subject to the program. These habitats must be managed to maintain or enhance the biological, physical, and chemical characteristics of the habitat which contribute to its capacity to support living resources.

Evaluation

The upland areas proposed for construction on Shemya Island have been previously disturbed. Potential deployment could impact up to 12

hectares (30 acres) of wetlands. Since most of the island contains wetlands, impacts are unavoidable. In addition, the USFWS has indicated that there is no appropriate area on Shemya to mitigate potential impacts to wetlands. Therefore, the USFWS has initially proposed mitigation measures on other Aleutian Islands, which include reintroduction of the Evermann's Rock Ptarmigan to Agattu from Attu and studying population and distribution of Cormorants in the Near Islands.

6 AAC 80.140 AIR, LAND, AND WATER QUALITY

Notwithstanding any other provisions of 6 ACC 80, the statutes pertaining to and the regulations and procedures of the Alaska Department of Environmental Conservation (DEC) with respect to the protection of air, land, and water quality are incorporated into the ACMP and, as administered by that agency, constitute the components of the coastal management program with respect to those purposes.

1. Does the project comply with DEC air quality standards? **Yes, all necessary permits will be obtained.**
2. Does the project comply with DEC water quality standards? **Yes, all necessary permits will be obtained.**
3. Does the project comply with DEC land quality standards? **Yes, all necessary permits will be obtained.**

6 AAC 80.150 HISTORICAL, PREHISTORIC, AND ARCHAEOLOGICAL RESOURCES

Districts and appropriate state agencies shall identify areas of the coast which are important to the study, understanding, or illustration of national, state, or local prehistory.

1. Does the project involve disturbance, investigation, or removal of known historical or archaeological resources? **No historical or archaeological resources would be impacted from NMD construction or operation (see attached letter from State Historic Preservation Office).**

OTHER STANDARDS

The following standards may need to be considered depending on the type of activity that is proposed and its location:

6 ACC 80.070 ENERGY FACILITIES

Districts identify sites suitable for development of energy facilities

Evaluation

No public energy facilities would be constructed as part of the NMD program.

6 AAC 80.090 FISH AND SEAFOOD

Districts may designate coastal areas suitable for development of facilities related to commercial fishing and seafood processing.

Evaluation

Deployment would occur on Shemya Island and would not impact any areas suitable for development of commercial or seafood processing.

CONSISTENCY DETERMINATION

Based on the analysis of the previous section and any other relevant factors, is the activity consistent to the maximum extent practicable with the ACMP (including district policies)?

Consistency Determination:

The NMD Program Office determines that the proposed activity complies with, and will be conducted in a manner consistent to the maximum extent practicable with, the Alaska Coastal Management Program, including affected coastal district programs.

Signature of Agency Representative/Position

Date

APPENDIX B

Aleutians West Coastal Resource Service Area Coastal Management Program Enforceable and Administrative Policies

A-1 Water Dependent and Water-Related Activities

The installation of the fiber optic cable is the only water dependent or related use and would cross the shoreline on Shemya Island; all other activities would occur on the inland parts of the island.

A-2 Mitigation

No impacts are expected for commercial fishing uses and activities, subsistence and personal use resources, or recreational resources. Consultation is ongoing with the U.S. Fish and Wildlife Service (USFWS) and the U.S. Army Corps of Engineers about appropriate mitigations for the potential destruction of some wetlands and habitat on Shemya Island. Potential deployment could impact up to 12 hectares (30 acres) of wetlands. Since most of the island contains wetlands, impacts are unavoidable. In addition, the USFWS has indicated that there is no appropriate area on Shemya to mitigate potential impacts to wetlands. Therefore, the USFWS has initially proposed mitigation measures on other Aleutian Islands, which include reintroduction of the Evermann's Rock Ptarmigan to Agattu from Attu and studying population and distribution of Cormorants in the Near Islands. No historic properties will be affected but if unexpected discoveries are made the project will stop and the State Historic Preservation Officer (SHPO) consulted. Appropriate air and water quality permits will be obtained.

A-3 Multiple Use

The NMD project will utilize existing facilities and minimize the construction of new facilities where applicable.

A-4 Compatibility

Shemya Island is the only inhabited island in the area and is currently used as a military base, thus the associated NMD activities will be compatible with the existing and surrounding uses. The island is located in the Alaska Maritime National Wildlife Refuge, however, there is a Memorandum of Understanding between the U.S. Fish and Wildlife Service and the Air Force that authorizes the Air Force to control, operate and maintain air navigation, installation-related facilities, and other defense-related facilities situated on Shemya Island in the interests

of national defense and for the benefit of private, commercial, and government aircraft.

A-5 Dredge and Fill Requirements

Up to 53 acres of wetland could be filled by construction of NMD elements. This will also be conducted in compliance with State and Federal regulations. These areas will be avoided to the extent possible and consultation with USFWS and the U.S. Army Corps of Engineers is ongoing to develop appropriate mitigation measures.

A-6 Disposal of Dredge Spoil

No dredging is anticipated, however, there would be a large amount of peat and/or overburden material generated from site preparation that is unsuitable for construction and would require disposal. Preferred uses for this overburden material are to use it as cover for landfills and abandoned roads. This will be closely coordinated with the Eareckson AS Program Manager.

A-7 Navigation Obstructions

No navigation obstructions are anticipated from NMD program activities on Shemya Island.

A-8 Floating Facilities

No floating facilities are anticipated for NMD Program activities on Shemya Island.

A-9 Monitoring and Compliance Enforcement

The NMD program will establish a mitigation monitoring program prior to the start of construction activities. This plan will stipulate the necessary compliance enforcement.

A-10 Monitoring Priorities [Administrative Policy]

Administrative Policy noted.

A-11 Coordination with Municipal Regulations [Administrative Policy]

Not applicable to the NMD program.

A-12 Optimum Location of Development [Administrative Policy]

Not applicable to the NMD program.

A-13 Large Scale Land Development and Subdivision [Administrative Policy]

The NMD program prepared an EIS that address potential impacts to fish and wildlife resource and habitat concerns, personal use and subsistence resources uses and access, and surface drainage and water quality concerns.

A-14 Public Notice and Involvement Opportunities [Administrative Policy]

Eareckson AS is restricted to the public, however information was sent out and an opportunity presented for the public to comment on the proposed fiber optic cable line from Whittier or Seward to Eareckson AS and copies of the EIS were made available to the public at local libraries, by mail to people who requested documents, and on the internet. Public scoping meetings and public hearings were also conducted.

A-15 Unalaska Harbor Management Plan [Administrative Policy]

The NMD program activities will have no impacts on Unalaska.

B. Habitat

B-1 State Standards

See evaluation of the Alaska Coastal Management Standards for the National Missile Defense Program Activities on Shemya Island.

B-2 Upland Habitats

Measures will be implemented during construction to avoid excessive runoff and erosion. This in turn should help maintain the current water quality, drainage patterns and not affect groundwater recharge areas. Disturbance to vegetation will be minimized to the extent practicable. The upland areas proposed for construction on Shemya Island have been previously disturbed.

B-3 Anadromous Fish Waters

No anadromous fish waters occur on Shemya Island, thus no impacts are expected from NMD program activities.

B-4 Maintenance of Fish Passage and Stream Characteristics

No anadromous fish waters occur on Shemya Island, thus no impacts are expected from NMD program activities.

B-5 Instream Flow

No anadromous fish waters occur on Shemya Island, thus no impacts are expected from NMD program activities.

B-6 Water Removal from Fish Streams

No anadromous fish waters occur on Shemya Island, thus no impacts are expected from NMD program activities.

B-7 Geophysical Surveys

Currently, surveys are being conducted on Eareckson AS; however, the activities are inland and do not impact fish and wildlife populations or habitat. Shemya Island is in seismic zone 4 and is subject to a high probability of severe earthquake ground shaking during the life of NMD elements. The XBR, IFICS Data Terminals, and fiber optic cable would be constructed taking into account seismic and wind conditions found on Shemya Island.

B-8 Raptor Nest Sites

NMD activities on Shemya Island would not harm or disturb any raptor nest sites.

B-9 Marine Mammal Haul-outs and Seabird Colonies

There would be no construction or operation activities near any marine mammal haul-outs and seabird colonies. General construction activities would occur well inland from the coast line and would result in no impact to marine species. Limited blasting for construction fill at Seal Rock Quarry on Shemya Island would be approximately 2,586 meters (8,484 feet) from a Steller sea lion haul-out area. There is the potential that blasting noise could cause the Steller sea lion to temporarily abandon its haul-out places. However, the NMFS concurred with a March 24, 2000 report on blasting effects at the Seal Rock quarry: "We agree with your determination that blasting, construction, and operation of the project would have 'no effect' on Steller sea lions near the project area." The report (Subterra, Inc., 2000) also provides information related to minimizing blasting effects on the environment. Potential construction of the fiber optic cable line may temporarily disturb marine species; however, this would only be short-term and after the cable is laid no impacts would be expected.

B-10 Threatened and Endangered Species

An initial study on the location of the threatened Aleutian Canada goose feeding areas was conducted as part of a Management Action Plan for Eareckson Air Station. This study identified the location of feeding and

resting areas on the island. In 1999, the Air Force began a 3-year study to further determine the goose population during spring (mid April through mid June) and fall migrations (mid August through mid October) when the species is found on the island. Additional vegetation surveys to be conducted in 2000 will further refine island populations and prime feeding areas. The studies are being conducted by the Air Force along with the USFWS to assist in a bird aircraft strike hazard assessment. The purpose of the assessment is to minimize the potential safety hazard to aircraft from a bird strike during flight operations on Eareckson AS. The USFWS is allowing the Air Force to maintain vegetation on the island to minimize use by the Aleutian Canada goose. NMD related construction activities including equipment noise and limited blasting of quarry material and resulting new facilities could affect feeding and resting areas on the island. However, in discussions with the USFWS Alaska Maritime National Wildlife Refuge, it was concluded that NMD activities would not impact areas considered as critical habitat for the Aleutian Canada goose. Shemya Island is not considered critical habitat because of the need to minimize the bird strike hazard to aircraft and the existence of the Arctic fox on the island. Additionally, the goose is in the final steps of being delisted, which is expected by the end of July 2000, prior to the start of NMD construction activities. If the Aleutian Canada goose is not delisted, additional consultation with the USFWS would be conducted (Boone, 2000—Personal communication with the USFWS regarding the Aleutian Canada goose).

B-11 Bank Stabilization

Erosion control techniques and stabilization measures will be implemented to prevent erosion and sedimentation into adjoining waters during construction and operation.

B-12 Disturbance by Aircraft [Administrative Policy]

Not applicable to the NMD program. The NMD Program would use existing runway and flight patterns currently used by the Air Force.

B-13 Update of Resource Information [Administrative Policy]

Not applicable to the NMD program.

C. Air, Land, and Water Quality

C-1 State Standards

See evaluation of the Alaska Coastal Management Standards for the National Missile Defense Program Activities on Shemya Island.

C-2 Maintain Water Quality Criteria

Best Management Practices and erosion control techniques will be implemented during NMD construction in order to maintain the water quality status. All necessary permits will be obtained for construction and operation.

C-3 Wastewater Discharge

The additional wastewater created by NMD construction and operations can be easily accommodated by the existing system on Eareckson AS. Any additional permits required would be obtained before construction begins.

C-4 Shoreline Developments

No development would occur along the shoreline except for the installation of the fiber optic cable line and no impacts would occur after the cable is laid.

C-5 Environmental Protection Technology

NMD program activities will use the latest technology to the extent feasible and prudent in efforts to reduce impacts to the environment.

C-6 Hazardous Substances

Storage, transportation, cleanup, and disposal of hazardous materials and waste will comply with Federal, state and local laws and regulations. Appropriate permits will be obtained and plans put in place before construction of NMD elements occur on Eareckson AS.

C-7 Siltation and Sedimentation

Erosion control techniques and stabilization measures will be implemented to prevent erosion and sedimentation into adjoining waters during construction and operation. In addition, all appropriate water quality permits will be obtained.

C-8 Refuse Disposal

Current estimates expect the landfill on Eareckson AS to reach capacity in less than 15 years. NMD deployment to the base would reduce the landfill's capacity; however, there is room for the landfill to expand, if necessary. A temporary, efficient incinerator could be brought in to reduce debris going into the landfill and removal of construction waste from the island.

C-9 Sewage Disposal

The additional sewage created by NMD construction and operations can be easily accommodated by the existing system on Eareckson AS. Any additional permits required would be obtained before construction begins.

C-10 Storage of Petroleum and Petroleum Products

All storage facilities would comply with the requirements of this policy.

C-11 Spill Containment and Cleanup Equipment

The NMD program would follow existing procedures on Eareckson AS regarding spill containment and cleanup.

C-12 Cumulative Impacts on Air Quality

All necessary air quality permits will be obtained prior to construction and operation of the NMD elements. No other air pollutant sources have been identified in the surrounding area.

C-13 Cumulative Impacts on Water Quality

Best Management Practices and erosion control techniques will be implemented during NMD construction in order to maintain the water quality status. All necessary water quality permits will be obtained for construction and operation.

C-14 Planning for Cumulative Impacts [Administrative Policy]

No cumulative impacts to water quality or air quality are anticipated from NMD activities.

C-15 Planning and Coordination [Administrative Policy]

The NMD program will make use of existing management plans on Eareckson AS regarding the use of hazardous substances.

C-16 Siting of Facilities [Administrative Policy]

The NMD facilities would be sited within an existing military facility to maximize system performance.

C-17 Oil Spill Contingency Plans [Administrative Policy]

Existing installation plans will be amended taking into account NMD facilities.

C-18 Monitoring and Compliance [Administrative Policy]

The Department of Environmental Conservation will be consulted regarding NMD Deployment.

D. Subsistence

D-1 State Standards

The construction and operation of NMD elements on Eareckson AS will have no effect on subsistence, since access to the island is restricted to site-related personnel and no hunting is allowed. In addition, deployment of the NMD system would not affect any subsistence uses or subsistence resources in the water surrounding the island.

D-2 Development Impacts

The NMD project at Eareckson AS is not in an area traditionally used for subsistence, since access to the island is restricted to site-related personnel and no hunting is allowed.

D-3 Access

Access to Eareckson AS is restricted to site-related personnel and no hunting is allowed. In addition, deployment of the NMD system would not affect any subsistence uses or subsistence resources in the water surrounding the island.

D-4 Planning Processes [Administrative Policy]

No significant adverse impacts on subsistence are anticipated since access to the island is restricted to site-related personnel and no hunting is allowed. In addition, deployment of the NMD system would not affect any subsistence uses or subsistence resources in the water surrounding the island.

D-5 Subsistence Resource Management [Administrative Policy]

No impacts to subsistence resources would occur as a result of NMD activities.

E-1 Stream Crossings

No anadromous fish waters occur on Shemya Island, thus no impacts are expected from NMD program activities.

E-2 Maintaining Traditional Public Access

Access to Shemya Island is restricted to site-related personnel.

E-3 Off-Road Access

Access to Shemya Island is restricted to site-related personnel; therefore, there will be no off-road access.

E-4 Shoreline Setback

The installation of the fiber optic cable is the only NMD element that would occur within 25 feet of the shoreline on Shemya Island, all other activities would occur on the inland parts of the island.

E-5 Siting and Scheduling

The fiber optic cable line will follow the existing road and utility corridors in order to minimize impacts.

E-6 Planning Processes [Administrative Policy]

Eareckson AS is restricted to the public, however information was sent out and an opportunity presented for the public to comment on the proposed fiber optic cable line from Whittier or Seward to Eareckson AS.

E-7 Unalaska Harbor Management Plan [Administrative Policy]

The NMD program activities will have no impacts on Unalaska.

E-8 Regional Solid Waste Facility [Administrative Policy]

NMD program activities will not involve the design or construction of a regional marine waste disposal facility.

F. Fisheries and Seafood Processing

F-1 Optimum Resource Use

NMD program activities on Eareckson AS will not affect important fish habitat, fish migration routes, or the recreational or commercial harvest of fish.

F-2 Development

NMD program activities on Eareckson AS will not have any adverse impacts on fisheries resources, recreational fishing, enhancement projects, subsistence or personal use fishing, or commercial fishing.

F-3 Disposal of Seafood Processing Wastes

NMD program activities on Eareckson AS will not deal with seafood processing and therefore will have no seafood processing waste.

F-4 Utilization of Seafood Processing Waste [Administration Policy]

NMD program activities on Eareckson AS will not deal with seafood processing and therefore will have no seafood processing waste.

F-5 Notification of Hazards to Commercial Fisherman [Administrative Policy]

NMD program activities on Eareckson AS will not impact the surrounding marine waters. The laying of the fiber optic cable from Whittier or Seward to Eareckson AS would require this notification.

F-6 Preferred Sites for Seafood Processing [Administrative Policy]

NMD program activities on Eareckson AS does not involve a seafood processing site.

F-7 Fisheries Enhancement and Habitat Improvement [Administrative Policy]

The NMD program would have no impact on fisheries; thus, no habitat improvement would be required.

F-8 Expanded Commercial Fisheries and Mariculture [Administrative Policy]

Not applicable to the NMD program.

F-9 Commercial Fishing Industry Development [Administrative Policy]

Not applicable to the NMD program.

G. Geophysical Hazard Areas

G-1 Design and Siting Criteria

The XBR, IFICS Data Terminal, and fiber optic cable would be constructed taking into account seismic and wind conditions found on Shemya Island.

G-2 Coastal Processes

Erosion control techniques and stabilization measures will be implemented to prevent erosion and sedimentation into adjoining waters during construction and operation.

G-3 Stream Flooding

No NMD elements will be located within the 100-year floodplain except for the fiber optic cable line and this would be considered in the siting and design of the cable.

G-4 Erosion

Erosion control techniques and stabilization measures will be implemented to prevent erosion and sedimentation into adjoining waters during construction and operation. Disturbance to vegetation will be minimized to the extent practicable. The upland areas proposed for construction on Shemya Island have been previously disturbed.

G-5 Seismic Hazards [Administrative Policy]

Construction of new facilities would incorporate seismic design parameters consistent with the critical nature of the facilities and its geologic setting.

G-6 Emergency Response Program [Administrative Policy]

Appropriate plans will be developed with applicable agencies in case of a major seismic event at Eareckson AS.

H. Recreation

H-1 Protection of Recreation Values

Eareckson AS has restricted access to mission-related personnel; no public recreation or tourism is currently permitted. Deployment of the

NMD system would not impact any areas in which public recreation would occur.

H-2 Conflict Mitigation

Eareckson AS has restricted access to mission-related personnel; no public recreation or tourism is currently permitted. Deployment of the NMD system would not impact any areas in which public recreation would occur.

H-3 Open Space Areas [Administrative Policy]

Eareckson AS has restricted access to mission-related personnel; no public recreation or tourism is currently permitted. Deployment of the NMD system would not impact any areas in which public recreation would occur.

H-4 Easements and Rights of Way [Administrative Policy]

Eareckson AS has restricted access to mission-related personnel; no public recreation or tourism is currently permitted. Deployment of the NMD system would not impact any areas in which public recreation would occur.

H-5 Planning Processes [Administrative Policy]

Eareckson AS has restricted access to mission-related personnel; no public recreation or tourism is currently permitted. Deployment of the NMD system would not impact any areas in which public recreation would occur.

H-6 Community Recreation Plans [Administration Policy]

Eareckson AS has restricted access to mission-related personnel; no public recreation or tourism is currently permitted. Deployment of the NMD system would not impact any areas in which public recreation would occur.

I. Historical and Archeological Areas

I-1 Cultural and Historic Resource Areas

No historic or archaeological resources would be impacted from NMD construction or operation. However, if during the course of NMD program activities, cultural materials (particularly human remains) are unexpectedly discovered, activities will cease in the immediate area and the Alaska SHPO notified.

I-2 Resource Protection

No historic or archaeological resources would be impacted from NMD construction or operation. All efforts will be made to avoid the known existing cultural sites. However, if during the course of NMD program activities, cultural materials (particularly human remains) are unexpectedly discovered, activities will cease in the immediate area and the Alaska SHPO notified.

I-3 Removal of Artifacts [Administration Policy]

No archaeological or historic artifacts will be removed.

I-4 Data Requirements [Administration Policy]

No archaeological projects are planned for the NMD program at Eareckson AS.

I-5 Cultural Resource Planning [Administration Policy]

No archaeological projects are planned for the NMD program at Eareckson AS.

J. Energy Facilities

J-1 State Standards

No public energy facilities would be constructed as part of the NMD program.

J-2 Oil and Gas Development

No public energy facilities would be constructed as part of the NMD program.

J-3 Alternative Energy Resources [Administrative Policy]

No alternative energy resources would be constructed as part of the NMD program.

J-4 Oil and Gas Storage and Trans-shipment Facilities [Administrative Policy]

Storage tanks proposed for the NMD elements at Eareckson AS would contain fuel for the electrical generators. The exact number and types of storage are not currently known; however, all storage tanks installed for the NMD program would be coordinated and comply with appropriate state and Federal agencies.

K. Mining

K-1 Siting of Material Sources

No mining or mineral process would be conducted as part of the NMD program.

K-2 In-stream Mining

No mining or mineral process would be conducted as part of the NMD program.

K-3 Best Management Practices

No mining or mineral process would be conducted as part of the NMD program.

K-4 Mining in Fish Habitat

No mining or mineral process would be conducted as part of the NMD program.

K-5 Overburden Disposal

No mining or mineral process would be conducted as part of the NMD program.

K-6 Reclamation and Restoration

No mining or mineral process would be conducted as part of the NMD program.

K-7 Restoration Cost Guarantees [Administration Policy]

No mining or mineral process would be conducted as part of the NMD program.

K-8 Siting of Material Sources [Administration Policy]

No mining or mineral process would be conducted as part of the NMD program.

K-9 Siting of Mineral Extraction Projects [Administration Policy]

No mining or mineral process would be conducted as part of the NMD program.

**APPENDIX C
SECTIONS OF THE NMD DEPLOYMENT EIS REGARDING
EARECKSON AIR STATION ACTIVITIES**

Appendix C of the Coastal Consistency Determination to be submitted to the State of Alaska will include sections of the NMD Deployment Final EIS that describe the proposed activities, the affected environment and the environmental consequences of the NMD program on Eareckson AS, Alaska.

APPENDIX D DRAFT ENVIRONMENTAL REVIEW

In-Flight Interceptor Communication Systems (IFICS) Data Terminals— Eareckson AS

In order to provide a communication link between the in-flight ground-based interceptor (GBI) and the Battle Management Command and Control (BMC2), several IFICS Data Terminals would be required. An IFICS Data Terminal would consist of a radio transmitter/receiver in an enclosed radome with an equipment shelter located adjacent to the transmitter and would typically require approximately 2 hectares (6 acres) of land for one IFICS Data Terminal. The structure would be approximately 7 meters (20 feet) tall and include around 186 square meters (2,000 square feet). The IFICS Data Terminals are radio transmitters that would not transmit except when a GBI is launched to intercept an incoming ballistic missile. The exact location of the IFICS Data Terminals has not been determined. Analysis in the NMD Deployment EIS discusses general types of impacts that would be expected. Once specific sites are determined, supplemental site-specific environmental analysis, as required, would be performed.

Currently there are two locations on Eareckson AS that are being considered for these IFICS Data Terminals. Either site would accommodate three IFICS Data Terminals. It has not been determined which site will be selected, but for this analysis both sites will be considered. One of the proposed sites occurs in the southeast portion of the island along East Road, just north of the landfill and consists of 9.94 hectares (24.57 acres). The other proposed site is located in the north central portion of the island along North Road, just south of Headquarters Lake and west of the housing area. This site consists of 9.11 hectares (22.50 acres).

Potential impacts would be short-term during the construction period and limited in scope given the small site required for the IFICS Data Terminals. After construction is completed there would be minimal impacts resulting from the operation of IFICS Data Terminals. Resources that could potentially have impacts as a result of the construction of the IFICS Data Terminals are discussed in more detail in the following sections.

For this analysis, the environment is discussed in terms of 14 resource areas. Of the 14 resource areas, 11 resource areas are discussed below for IFICS Data Terminal deployment at Eareckson AS. Initial analysis indicated that the potential deployment of the IFICS Data Terminal element would not result in short-or long-term impacts to airspace, socioeconomics, transportation, and utilities. The reasons for not

addressing these resource areas are briefly discussed in the following paragraphs.

Airspace. Under the Proposed Action, there are no requirements for any restricted airspace at any of the IFICS Data Terminal deployment alternatives as a result of the NMD program; therefore, there would be no impact to regional airspace, and this resource area is not analyzed further.

Socioeconomics. Under the Proposed Action, there would be a minimal security personnel force associated with deployment of an IFICS Data Terminal. Also, Eareckson AS is on an isolated island in the Aleutian Chain and is restricted from public access. In addition, construction of the site would create minimal construction-related jobs. Therefore, there would be no impact to local or regional socioeconomic resources, and this resource area is not analyzed further.

Transportation. There are no local or regional transportation resources on Eareckson AS, and this resource area is not analyzed further.

Utilities. There may be a minimal site security force associated with operation of the IFICS Data Terminal. The site would require a small amount of electricity to operate. The site would only need electrical connections with power being supplied by the new XBR power plant. Overall, there would be no impact to utilities, and this resource area is not analyzed further.

Air Quality

This section addresses potential environmental impacts caused by changes to the air quality environment due to the proposed construction and operation of IFICS Data Terminals at Eareckson AS.

The IFICS Data Terminal sites would require disturbance over a 6-month construction period. Construction would be conducted in accordance with applicable regulations and permits. Related emissions would be intermittent and would not be anticipated to cause exceedances of AAQS. As such, the proposed construction would have minimal impact on air quality.

The IFICS Data Terminals during operation would tie into the new power plant constructed for the XBR and associated air quality impacts associated with the power plant are discussed in the NMD Deployment EIS.

Overall, installation and operation of the IFICS Data Terminals at Eareckson AS would not be expected to generate significant air emissions.

Cumulative Impacts. The installation of a fiber optic cable line and the XBR could also be occurring during the same time frame as the installation of the IFICS Data Terminals. However, given the limited amount of construction and operational emissions, cumulative impacts would be minimal.

Mitigation Measures. No mitigations would be required.

Biological Resources

During normal NMD operations the IFICS Data Terminal would not transmit except for a few minutes during annual testing of the equipment. The IFICS Data Terminal would also transmit if a GBI is launched. Given the short duration of transmission, no adverse impacts to biological resources are anticipated from operations.

Vegetation. Ground disturbance during construction would result in removal of vegetation, erosion due to the loss of vegetation, and potential loss of wildlife habitat within the proposed site. Vegetation on the air station consists of mainly grasses and small shrubs. This would only represent a small amount of vegetation and should not result in adverse impacts.

No impacts to vegetation are expected from the operation of the IFICS Data Terminals.

Wildlife. Construction ground disturbance and equipment noise-related impacts could include loss of habitat, displacement of wildlife, increased stress, disruption of daily/seasonal behavior, and mortality of less mobile species. Typical noise levels at 15 meters (50 feet) from construction equipment range from 70 to 98 dBA. The combination of increased noise levels and human activity would likely displace some small mammals and birds that forage, feed, nest, or have dens within this 15-meter (50-foot) radius. Flushing would slightly increase individual energy expenditure. Some wildlife may leave the area permanently, while others may likely become accustomed to the increased noise and human presence. However, given the small area of disturbance and short-duration of the construction period (6 months) it is not anticipated that any adverse impacts at Eareckson AS would occur.

Most operational impacts to wildlife from an IFICS Data Terminal would come from security lighting. The lighting could discourage species less tolerant of these disturbances to avoid the area.

Threatened and Endangered Species. An initial study on the location of the threatened Aleutian Canada goose feeding areas was conducted as part of a Management Action Plan for Eareckson Air Station. This study identified the location of feeding and resting areas on the island. In 1999, the Air Force began a 3-year study to further determine the goose

population during spring (mid April through mid June) and fall migrations (mid August through mid October) when the species is found on the island. Additional vegetation surveys to be conducted in 2000 will further refine island populations and prime feeding areas. The studies are being conducted by the Air Force along with the USFWS to assist in a bird aircraft strike hazard assessment. The purpose of the assessment is to minimize the potential safety hazard to aircraft from a bird strike during flight operations on Eareckson AS. The USFWS is allowing the Air Force to maintain vegetation on the island to minimize use by the Aleutian Canada goose. NMD related construction activities including equipment noise and limited blasting of quarry material and resulting new facilities could affect feeding and resting areas on the island. However, in discussions with the USFWS Alaska Maritime National Wildlife Refuge, it was concluded that NMD activities would not impact areas considered as critical habitat for the Aleutian Canada goose. Shemya Island is not considered critical habitat because of the need to minimize the bird strike hazard to aircraft and the existence of the Arctic fox on the island. Additionally, the goose is in the final steps of being delisted, which is expected by the end of July 2000, prior to the start of NMD construction activities. If the Aleutian Canada goose is not delisted, additional consultation with the USFWS would be conducted (Boone, 2000—Personal communication with David Hasley, USASMDC, regarding the Aleutian Canada goose).

Once construction activities are complete the operational impacts on threatened and endangered species would be similar to the impacts mentioned above for wildlife.

Sensitive Habitats. Since almost all of Eareckson AS contains wetlands, impacts are unavoidable, but wetlands would be avoided to the extent practicable. Construction of the IFICS Data Terminals could impact up to 10 hectares (25 acres) of wetlands. Section 404 permits and state 401 water quality certification would be obtained after actual siting of the IFICS Data Terminals and before any discharge of fill material. Because wetlands generally provide wildlife habitat, any significant changes to these wetlands would likely result in subsequent impacts on wildlife of the area. Mitigation measures will be developed in the permitting process.

Cumulative Impacts. Cumulative impacts would include increased activity during construction of the IFICS Data Terminals and the XBR and the loss of a small amount of habitat at the proposed sites. The loss of habitat and wetlands (up to approximately 22 hectares [55 acres] or 2 percent of total wetlands on the island) would result in cumulative impacts to biological resources on the island given past development; however, since most of the island has been developed and both of the potential IFICS Data Terminal sites have been previously disturbed, the cumulative impacts would be minor. Potential impacts to wetlands

would be mitigated as described below. No major future programs other than NMD related projects have been identified at Eareckson AS or the region that could contribute to cumulative impacts to biological resources. Shemya Island is not a nesting area for the Aleutian Canada goose or a breeding or pupping area for the Steller sea lion, and cumulative impacts are expected to be minimal.

Mitigation Measures. The wetland permitting process will be conducted in accordance with the U.S. EPA's guidelines for evaluating Section 404 permitting applications found in Section 404 (b)(1) of the Clean Water Act. Section 401 water quality certification provided by the State of Alaska could include effluent and other limitations as well as monitoring requirements. Mitigation measures would be developed during the permitting process once a site has been selected. Agency-recommended mitigations would take into account the size and quality of the wetlands involved.

The USFWS is the land owner for Shemya Island and is one of the agencies along with the U.S. Army Corps of Engineers that would be involved in the 404 permitting process. The USFWS has indicated that there is no appropriate area on Shemya to mitigate potential impacts to wetlands. Therefore, the USFWS has initially proposed mitigation measures on other Aleutian Islands as follows:

- Reintroduce the Evermann's Rock Ptarmigan to Agattu from Attu
- Study population and distribution of Cormorants in the Near Islands

The final mitigation measures would be developed during the 404 permitting process with the U.S. Army Corps of Engineers.

Procedures to minimize the introduction of alien species would be coordinated with the USFWS where applicable. No other mitigation measures would be required.

Cultural Resources

Prehistoric and Historic Archaeological Resources. The siting of the IFICS Data Terminals would be as to avoid any archaeological sites. There are no known archaeological sites at the proposed IFICS Data Terminal locations.

Historic Buildings and Structures. The only potential historic building or structure identified for Eareckson AS is the COBRA DANE radar. IFICS Data Terminal activities will not affect this potential historic property.

Native Populations/Traditional Resources. There have been no traditional cultural properties identified within the Region of Influence or Alaska

Native issues identified at Eareckson AS. Consultation with Aleut Corporation has been initiated through the NEPA process, and no issues or concerns with the NMD program have been raised.

Paleontological Resources. Because of the physiographic setting of the Aleutian Islands, paleontological resources could occur. However, none have been recorded on Eareckson AS or Shemya Island; therefore, no effects are expected.

Cumulative Impacts. No major future programs other than the potential XBR and fiber optic cable line that could contribute to cumulative cultural resources impacts have been identified at Eareckson AS or within the region. Minor repairs and alterations to existing facilities are planned; however, they are expected to have no effect.

Mitigation Measures. Although no historic properties have been identified within the ROI, the cultural resources complexion of the installation and the region indicates that prehistoric and historic archaeological sites, traditional cultural properties, and/or paleontological sites do have the potential to occur. If during the course of NMD program activities, cultural materials (particularly human remains) are unexpectedly discovered, activities will cease in the immediate area and the Alaska SHPO notified. Subsequent actions will follow the guidance provided in 36 CFR 800.11 and NAGPRA.

Geology and Soils

Minor to moderate impacts are anticipated to the geology and soils at Eareckson AS as a result of construction of the IFICS Data Terminals. Most of the construction would take place in areas where previous ground disturbance has occurred. Facility designs would have to address the excavation and removal of thick surface layers of tundra peat in order to achieve suitable foundation conditions. Such excavations would expose underlying loam soils to potential erosion and would also create spoils of organically rich materials that would have to be designated for alternative uses.

Site preparation work at Eareckson AS would generate a large quantity of peat and/or overburden material that would be unsuitable for construction purposes and would require disposal. Preferred alternatives for disposal and reuse of organic and overburden materials have included use as cover for landfills and abandoned roads. Disposal and reuse of these materials would be closely coordinated with Eareckson AS Program Manager.

All construction aggregate would be obtained from existing borrow areas on-island, as off-island sources of material are economically impractical and logistically difficult to bring onto the island. The use of the island's sand and gravel resources would not deplete the available resources.

Eareckson lies in seismic zone 4 and would be subject to a high probability of severe earthquake ground shaking during the design life of the IFICS Data Terminals. Construction of new facilities would incorporate seismic design parameters consistent with the critical nature of the facilities and its geologic setting. The facility would be located at an elevation above the wave run-up line of a potential tsunami.

Cumulative Impacts. Review of existing documentation shows that there are currently no major projects other than the potential XBR and fiber optic cable line that may contribute to cumulative impacts in the timeframe of IFICS Data Terminal construction. There may be some minor repairs and alterations to existing facilities. However, given the limited disturbance associated with this NMD element, no cumulative impacts to geology and soils should occur from construction or long-term operation.

Mitigation Measures. Best Management Practices would be used to reduce the potential for short-term soil erosion during construction. Various measures may be used to reduce water erosion of slopes, partially graded streets, and pads. Alternative measures may include minimizing the amount of area exposed during grubbing, use of soil stabilizers to reduce fugitive dust, use of sandbags for diverting flow, and revegetating slopes and open areas as soon as possible to enhance long-term stability.

Hazardous Materials and Hazardous Waste Management

This section addresses potential environmental impacts caused by hazardous materials and hazardous waste management practices associated with construction and operation of an IFICS Data Terminal, including the potential impacts on the ongoing remediation activities at existing contaminated sites.

The expected hazardous materials and wastes anticipated from the construction of the IFICS Data Terminals on Eareckson AS include protective coatings, lubricants and oils, motor and generator fuels, backup power batteries, adhesives, and sealants. Appropriate plans and measures would be implemented during the construction program to minimize hazardous materials and hazardous waste impacts that may result from NMD construction activities. Overall, hazardous materials and hazardous waste management activities are addressed below under Operation.

Hazardous Materials Management. The types of hazardous materials proposed for use under the Proposed Action would be similar to those currently used at Eareckson AS, primarily small amounts of cleaning solvents and storage batteries. No hazardous materials would be stored onsite.

One piece of equipment used on the system consists of a klystron tube, which contains small amounts of beryllium. Beryllium is listed on the Toxic Substance Control Act inventory. If maintenance is required, a new tube would be brought onsite and the replaced tube sent back to the manufacturer for repair. Any location where hazardous materials are used will have appropriate Material Safety Data Sheets posted. The appropriate spill response and hazardous materials management plan would be developed for the IFICS Data Terminal. Overall, all hazardous materials management activities would be in accordance with existing regulations for the use and storage of hazardous materials at Eareckson AS for the NMD program.

Hazardous Waste Management. The types of hazardous waste generated under the Proposed Action would be similar to the waste generated by current Eareckson AS activities. Any hazardous waste generated at the site would be removed after maintenance and transferred to the host installation's main hazardous waste storage facility. Any hazardous waste generated would be handled in accordance with appropriate Federal, state, and local regulations. The appropriate hazardous waste management plan would be developed for the site

Installation Restoration Program. Ten of the fifty identified IRP sites currently under remedial investigation, design, or action at Eareckson AS are on or near the proposed sites for IFICS Data Terminal construction. The current schedule of investigations and any remediation required at these sites would not be affected by the NMD program. Before beginning NMD construction, activities would be coordinated with the appropriate installation personnel and Federal and state regulators to minimize impacts to remediation efforts and NMD program activities. In addition, construction contractors would be notified of potential ground contamination before construction so appropriate health and safety measures can be taken to avoid human contact with any contaminated areas.

Polychlorinated Biphenyls. There are no remaining PCB-containing materials at Eareckson AS. No PCB-based materials would be used for the IFICS Data Terminals.

Radon. Radon testing at Eareckson AS resulted in all samples being below the U.S. EPA guidelines of 4 picocuries per liter or below detection levels (U.S. Department of the Air Force, 1997—Final Installation-Wide Environmental Baseline Survey). Hence, radon is not a concern at Eareckson AS.

Pesticides. Under the Proposed Action, pesticides may be used within the IFICS Data Terminal areas. Pesticides would be applied in accordance with Eareckson AS procedures using personnel certified as

pesticide applicators. The small amount of pesticides required for the NMD program would be similar to the quantities already applied in developed areas of the installation. Overall, there would be little change in pesticide usage amounts at Eareckson AS.

Cumulative Impacts. Potential cumulative hazardous materials and hazardous waste impacts could occur at Eareckson AS with the combination of NMD activities and ongoing facility maintenance and repair. Current activities at Eareckson AS would not result in a change in the overall installation mission or in ongoing hazardous materials and hazardous waste management programs. NMD activities in combination with ongoing Eareckson AS activities would result in an increase in the amounts of hazardous materials used and hazardous waste generated on Eareckson AS; however, Eareckson AS has the mechanisms and management systems in place to store and manage the increased quantity of hazardous materials and hazardous waste. Overall, it is not expected that there would be any cumulative hazardous materials or hazardous waste management issues at Eareckson AS.

Mitigation Measures. No mitigation measures would be required.

Health and Safety

IFICS Data Terminal health and safety impacts are evaluated by determining the processes in the NMD deployment that have the greatest potential for damage or injury. The primary health and safety issue associated with IFICS Data Terminal operation is EMR health impacts to the public and workers. EMR impacts to biological resources are addressed under that resource area.

EMR. During normal NMD operations, the IFICS Data Terminals at Eareckson AS would not transmit except during annual testing of the equipment. It is expected that a power/calibration test of the transmitter would occur once a year. During this test, EMR would be generated by the IFICS Data Terminal. Based on ANSI C95.1, the personnel exposure limit for the IFICS Data Terminal operating frequency is 10 milliwatts per square centimeter for a 4.23-minute exposure. Based on the 1,300-watt IFICS Data Terminal, EMR levels could exceed personnel exposure limits established by ANSI during the annual test out to 55 meters (180 feet). However, this area would be restricted to personnel during testing. The remainder of the year, the IFICS Data Terminal would not generate any EMR.

The main concern with electromagnetic interference with the IFICS Data Terminal would be if other equipment would be within the main beam of the transmission or operating in the same frequency. Because Eareckson AS is isolated and because there can be no obstruction of the IFICS Data Terminal main beam field of view, no other electronic equipment would

be within the main beam transmission. In addition, very few other electronic equipment operates in the same frequency as an IFICS Data Terminal. The EMR from a IFICS Data Terminal would not affect electroexplosive devices.

Overall, no health and safety risks are expected from operation of an IFICS Data Terminal.

General Construction. The construction of the IFICS Data Terminal elements at Eareckson AS would be conducted in accordance with the *Corps of Engineers Safety and Health Requirements Manual* and OSHA regulations. The construction of new facilities is routinely accomplished for both military and civilian operations and presents only occupational-related effects on the safety and health of workers involved in the performance of construction activity. The siting of the IFICS Data Terminal and any related support facilities would be in accordance with DOD standards taking into account hazards of EMR to ordnance, EMR to personnel, EMR to fuel, ESQD, and other facility compatibility issues.

Cumulative Impacts. There are no health and safety risks associated with operation of an IFICS Data Terminal; therefore, no cumulative impacts should occur.

Mitigation Measures. No mitigation measures would be required.

Land Use and Aesthetics

The construction of the IFICS Data Terminals would coincide with the existing mission of the base, which is to monitor and track space and missile activity; the existing mission would continue. Currently, the base has no zoning or land use conflicts, and this should not change because the proposed IFICS Data Terminals would be located well within the boundaries of Eareckson AS and the entire island of Shemya is surrounded by ocean.

Construction of this element would require grading of approximately 9 to 10 hectares (22 to 25 acres) at one of two locations on Eareckson AS. The siting of the IFICS Data Terminals would be in accordance with DOD standards taking into account EMR safety criteria. The land potentially affected is a relatively small area compared to the rest of the base and would not significantly diminish the amount of open space. This element would be consistent with the military nature of the base and compatible with the existing land uses.

Eareckson AS is operated under a memorandum of agreement between the Air Force and the USFWS that expires in 2011. NMD activities would comply with this agreement and with applicable laws and regulations. If activities on the island are required to continue beyond 2011, a new agreement would be obtained with the USFWS for

continued military operations. The nature of the agreement would be determined between the USFWS and the Air Force.

The activities at Eareckson AS under the Proposed Action would be consistent to the maximum extent practicable with the policies of the AWCERSA coastal management program. The Proposed Action does not have the potential to impact coastal development, geophysical hazard areas, recreation, transportation and utilities, timber harvest and processing, mining and mineral processing, subsistence activities, habitats, air, land and water quality and archaeological, historic, and prehistoric resources. This project would not be located on a freshwater or saltwater shoreline, nor is it water dependent or related. Facilities would be sited and built to minimize damage in the event of a geophysical hazard. Very little recreation activities occur in this area. All new transportation and utility routes would be located inland except for a small portion of the fiber optic cable line which is discussed in Appendix E. No timber harvesting, mining, or mineral processing will take place. No subsistence activities occur on the base. With the implementation of appropriate mitigation measures, no impacts to biological habitats are anticipated. Proposed construction and operation would not impact local air, land, or water quality and no adverse effects to cultural resources are anticipated.

The new IFICS Data Terminals would be of similar nature to the existing radar and would not be out of character with the surrounding military uses of the base. Due to the remoteness of Shemya Island, lack of surrounding populations and the limited amount of opportunity for public access, the visual environment would not be altered and the visual sensitivity would remain low.

Operation of this element could cause interference to certain unshielded electronic equipment area around the XBR. Due to the island being surrounded by ocean and uninhabited islands, this should not have any effect on the surrounding land uses of Eareckson AS. The operation of the IFICS Data Terminals would not create any zoning or land use conflicts.

Cumulative Impacts. The construction of IFICS Data Terminals at Eareckson AS would only affect a very small portion of the base. Proposed activities would comply with both the Coastal Zone Management Act and Section 1310 of the ANILCA. No major future programs other than the potential XBR and fiber optic cable line that could contribute to cumulative land use or aesthetic impacts have been identified at Eareckson AS or within the region.

Mitigation Measures. No mitigation measures would be required.

Noise

As no noise sensitive receptors are known to exist within 0.55 kilometer (0.34 mile) of the proposed IFICS Data Terminal construction sites at Eareckson AS, no significant impacts to the noise environment would be expected from construction equipment noise.

Eareckson AS is located on Shemya Island in the Western Aleutians. This island is remote and sparsely populated with few roads.

Both the noise potentially created by the operation of the IFICS Data Terminals and any other activity would be expected to be minimal and indistinguishable from the background noise at Eareckson AS. Consequently, no impact to the noise environment from operation the IFICS Data Terminals at Eareckson AS would be expected.

Cumulative Impacts. Potential cumulative impacts to the noise environment could occur at Eareckson AS with the combination of NMD deployment activities and ongoing noise from current military activities. However, no major future programs other than the potential XBR and fiber optic cable line that could contribute to cumulative impacts to the noise environment have been identified at Eareckson AS or within the region. Consequently, it is not expected that NMD deployment at Eareckson AS would cause a significant impact to the noise environment when combined with other ongoing and future programs.

Mitigation Measures. No mitigation measures would be required.

Water Resources

Construction of the IFICS Data Terminals would require grading of approximately 9 to 10 hectares (22 to 25 acres) of land.

The proposed IFICS Data Terminal sites would not be within the 100-year floodplain. The proposed sites are currently unused. Due to the topography of the sites, drainage patterns would only be altered slightly, and surface water runoff and erosion would be minimal. A minor increase in sediment in surface waters is possible, but not likely due to the lack of distinct drainages and the relatively high permeability of the soils. Construction would be outside of the base's potable water and infiltration gallery system in the central part of the base used for the base's drinking water supply.

Potential impacts to water resources resulting from accidental spills of hazardous materials during construction would be minimized because all activities would follow spill prevention, control, cleanup, and emergency response procedures.

IFICS Data Terminal construction activities would result in the disturbance of more than 2 hectares (5 acres) of land and would be subject to Federal NPDES permitting requirements. A general construction NPDES permit and associated SWPPP would be required before construction. A copy of the Notice of Intent for Storm Water Discharges Associated with Construction Activity Under a NPDES General Permit that would be filed with the U.S. EPA would also be provided to the Alaska Department of Environmental Conservation. A copy of the SWPPP would also be provided to the Alaska Department of Environmental Conservation. The SWPPP would include specific Best Management Practices to mitigate potential impacts to several small surface water bodies adjacent to the XBR site. A Short Term Variance from Water Quality Standards would be submitted to the Alaska Department of Environmental Conservation if potential effects on surface water are identified during preparation of the SWPPP. Upon completion of all activities covered under the NPDES construction permit, a Notice of Termination must be filed with the U.S. EPA and the Alaska Department of Environmental Conservation.

The water requirements would be much less than when Eareckson AS was at full force. The IFICS Data Terminal construction water requirements would not adversely impact the water supply system.

The only hazardous materials associated with the operation of the IFICS Data Terminal would be the use of small amounts of cleaning material and batteries for backup power; therefore, there would be minimal potential for hazardous materials or waste spills. In addition, construction of the site would require very little impervious area, therefore resulting in little stormwater runoff most of the area required for the IFICS Data Terminal's would be open land. The IFICS Data Terminals would be outside of the base's potable water and infiltration gallery system in the central part of the base used for the base's drinking water supply.

The water requirements for operations would be much less than when Eareckson AS was at full force. The IFICS Data Terminal operational water requirements would not adversely impact the water supply system.

Cumulative Impacts. The construction of IFICS Data Terminals at Eareckson AS would only affect a very small portion of the base. Although the NMD facilities would result in increased runoff and potential decrease in water quality, the mitigation measures to be incorporated into the final design at each location would maintain the pre-NMD storm water runoff levels and quality so as not to contribute to cumulative impacts. No major future programs other than the potential XBR and fiber optic cable line that could contribute to cumulative water

resource impacts have been identified at Eareckson AS or within the region.

Mitigation Measures. NPDES permit requirements, including the SWPPP for construction and operations and associated Best Management Practices and storm water control measures such as constructed wetlands and ponds, would provide all necessary mitigation relative to storm water. If, during review of the SWPPP, it is determined that NMD construction would cause a negative effect on surface water, a Short Term Variance from Water Quality Standards would be submitted to the Alaska Department of Environmental Conservation. All construction and operations would be completed in accordance with state and Federal water resources regulations. No additional mitigation measures for water resources are proposed.

Subsistence

The construction and operation of IFICS Data Terminal on Eareckson AS will have no effect on subsistence, since access to the island is restricted to site-related personnel and no hunting is allowed. In addition, deployment of the IFICS Data Terminals would not affect any subsistence uses or subsistence resources in the water surrounding the island.

Cumulative Impacts. Eareckson AS could also be the location of an XBR and connected to the fiber optic cable line as part of the NMD program. However, it still would not change its subsistence status. No other programs have been identified that would contribute to cumulative subsistence impacts.

Mitigation Measures. No mitigation measures would be required.

APPENDIX E DRAFT ENVIRONMENTAL REVIEW

Fiber Optic Cable Line—Eareckson AS

In order to provide a communication link between the NMD system elements a new fiber optic cable line would be required on Eareckson AS. This new fiber optic cable line on Eareckson AS would connect with the proposed fiber optic cable line from Whittier or Seward to Shemya Island. The exact alignment of the fiber optic cable out to Eareckson AS has not been determined but would basically run in the deep waters along the Aleutian Islands. Analysis in the NMD Deployment EIS discusses general types of impacts that would be expected. Once the final route is determined, it would be reviewed against the EIS to determine if supplemental environmental documentation would be required.

On Eareckson AS, the cable would make landfall near the southeast end of the island at Fox Beach. From Fox Beach the line would proceed up to East Road and then follow East Road to the X-Band Radar (XBR) site and to one of two potential locations for the In-Flight Interceptor Communications System (IFICS) Data Terminal along East Road and North Road. The XBR would be located in the northeast portion of Eareckson AS between East Road and AWS Road. There are two sites proposed for the IFICS Data Terminals. One of the sites is in the southeast corner of the island just north of the landfill. The other potential IFICS Data Terminal is located just south of North Road in the Headquarters Lake area. Only one of the areas for IFICS Data Terminals would be selected and the site would have three IFICS Data Terminals.

The fiber optic cable line would be buried 1.2 to 1.8 meters (4 to 6 feet) deep. To the extent possible, the line would be located within the existing road and utility rights-of-way in order to minimize disturbance. Potential impacts would be short-term during the construction period and limited in scope given the small area of disturbance required for the fiber optic cable line. After construction is completed there would be no impacts resulting from the operation of the line and disturbed areas would revert back to their previous condition. Resources that could potentially have short-term impacts as a result of the installation of the fiber optic cable line are discussed in more detail in the following sections.

Biological Resources

Vegetation. Impacts from construction would include removal of vegetation, erosion due to loss of vegetation, and the potential loss of habitat. However, the loss of vegetation would be temporary. After installation of the line the site would revert back to its previous

condition. Vegetation on the air station consists mainly of grasses and small shrubs. Potential sensitive vegetation associated with the Aleutian Canada goose is addressed under threatened and endangered species.

No impacts to vegetation are anticipated during operation of the fiber optic cable line.

Wildlife. Ground disturbance, habitat loss, an increase in personnel, and noise from construction, could result in impacts to biological resources present in the area. The proposed location for the fiber optic cable line begins at Fox Beach and then follows existing road and utility corridors to connect the proposed XBR and IFICS Data Terminal. Minimal impacts to marine and other wildlife species are expected from these construction-related activities since construction activities would only occur for a very short time.

No operations impacts to terrestrial wildlife are expected from the operations of the fiber optic cable line.

Threatened and Endangered Species. An initial study on the location of the threatened Aleutian Canada goose feeding areas was conducted as part of a Management Action Plan for Eareckson Air Station. This study identified the location of feeding and resting areas on the island. In 1999, the Air Force began a 3-year study to further determine the goose population during spring (mid April through mid June) and fall migrations (mid August through mid October) when the species is found on the island. Additional vegetation surveys to be conducted in 2000 will further refine island populations and prime feeding areas. The studies are being conducted by the Air Force along with the USFWS along with the USFWS to assist in a bird aircraft strike hazard assessment. The purpose of the assessment is to minimize the potential safety hazard to aircraft from a bird strike during flight operations on Eareckson AS. The USFWS is allowing the Air Force to maintain vegetation on the island to minimize use by the Aleutian Canada goose. NMD related construction activities including equipment noise and limited blasting of quarry material and resulting new facilities could affect feeding and resting areas on the island. However, in discussions with the USFWS Alaska Maritime National Wildlife Refuge, it was concluded that NMD activities would not impact areas considered as critical habitat for the Aleutian Canada goose. Shemya Island is not considered critical habitat because of the need to minimize the bird strike hazard to aircraft and the existence of the Arctic fox on the island. Additionally, the goose is in the final steps of being delisted, which is expected by the end of July 2000, prior to the start of NMD construction activities. If the Aleutian Canada goose is not delisted, additional consultation with the USFWS would be conducted (Boone, 2000—Personal communication with David Hasley, USASMDC, regarding the Aleutian Canada goose.) Construction activities including equipment noise could impact the feeding and resting

areas of the threatened Aleutian Canada goose. However, since most of the fiber optic cable alignment will follow existing road and utility corridors no long-term impacts would be expected.

Once construction is complete there would be no impacts to threatened or endangered species during the operation of the fiber optic cable line.

Sensitive Habitat. Since almost all of Eareckson AS contains wetlands, impacts are unavoidable, but wetlands would be avoided to the extent practicable. Potential deployment could disturb some wetlands areas during the trenching required to bury the fiber optic cable. Section 404 permits and state 401 water quality certification would be obtained after actual alignment of the cable is decided and before any discharge of fill material. Because wetlands generally provide wildlife habitat, any significant changes to these wetlands would likely result in subsequent impacts on wildlife of the area. Mitigation measures would be developed during the permitting process.

No impacts to sensitive habitat are anticipated during operation of the fiber optic cable line because all areas will be backfilled and reseeded and over time would revert back to their previous condition.

Cumulative Impacts. Cumulative impacts would include increased activity during construction and the loss of a small amount of habitat at the proposed site. The small loss of habitat and wetlands could result in cumulative impacts to biological resources on the island given past development; however, since most of the island has been developed and the fiber optic cable line would occur in an area that has been previously disturbed the cumulative impacts would be minor. Potential impacts to wetlands would be mitigated as described below. No major future programs other than the location of the IFICS Data Terminals and the XBR associated with the NMD Program have been identified at Eareckson AS or the region that could contribute to cumulative impacts to biological resources. Because Shemya Island is not a nesting area for the Aleutian Canada goose or a breeding or pupping area for the Steller sea lion impacts are expected to be minimal.

Mitigation Measures. The wetland permitting process will be conducted in accordance with the U.S. EPA's guidelines for evaluating Section 404 permitting applications found in Section 404 (b)(1) of the Clean Water Act. Section 401 water quality certification provided by the State of Alaska could include effluent and other limitations as well as monitoring requirements. Mitigation measures would be developed during the permitting process once the alignment of the fiber optic cable line has been selected. Agency-recommended mitigations would take into account the size and quality of the wetlands involved.

The USFWS is the land owner for Shemya Island and is one of the agencies along with the U.S. Army Corps of Engineers that would be involved in the 404 permitting process. The USFWS has indicated that there is no appropriate area on Shemya to mitigate potential impacts to wetlands. Therefore, the USFWS has initially proposed mitigation measures on other Aleutian Islands as follows:

- Reintroduce the Evermann's Rock Ptarmigan to Agattu from Attu
- Study population and distribution of Cormorants in the Near Islands

The final mitigation measures would be developed during the 404 permitting process with the U.S. Army Corps of Engineers.

Procedures to minimize the introduction of alien species would be coordinated with the USFWS where applicable. No other mitigation measures would be required.

Cultural Resources

Prehistoric and Historic Archaeological Resources. The proposed route of the fiber optic cable line would be aligned to avoid any archaeological sites. The route would come in close proximity to a site near Fox Beach that is a coastal prehistoric midden composed primarily of sea urchin remains. It has been completely destroyed by construction activities or vandalism. Due to this past disturbance, the site has lost its integrity and is not eligible for the National Register of Historic Places.

Native Populations/Traditional Resources. There have been no traditional cultural properties identified within the ROI or Alaska Native issues identified for the Eareckson AS alternative. Consultation with Aleut Corporation has been initiated through the NEPA process, and no issues or concerns with the NMD program have been raised.

Paleontological Resources. Because of the physiographic setting of the Aleutian Islands paleontological resources could occur. However, none have been recorded on Eareckson AS or Shemya Island; therefore, no effects are expected.

Cumulative Impacts. No other future programs that could contribute to cumulative cultural resources impacts other than associated NMD activities with the IFICS Data Terminals and the XBR have been identified at Eareckson AS or within the region. Minor repairs and alterations to existing facilities are planned; however, they are expected to have no effect.

Mitigation Measures. Although no historic properties have been identified within the ROI, the cultural resources complexion of the installation and the region indicates that prehistoric and historic

archaeological sites, traditional cultural properties, and/or paleontological sites do have the potential to occur. If during the course of NMD program activities, cultural materials (particularly human remains) are unexpectedly discovered, activities will cease in the immediate area and the Alaska SHPO notified. Subsequent actions will follow the guidance provided in 36 CFR 800.11 and NAGPRA. The alignment of the fiber optic cable would avoid all archaeological sites.

Water Resources

The new fiber optic cable lines would follow existing road and utility corridors where possible. Due to the topography of the site, surface water runoff and erosion would be minimal. A minor increase in sediment in surface waters is possible, but not likely due to the lack of distinct drainages and the relatively high permeability of the soils. Installation of the fiber optic cable line would not affect the infiltration gallery system used for the base's drinking water supply. Potential impacts to water resources resulting from accidental spills of hazardous materials during construction would be minimized because all activities would follow spill prevention, control, cleanup, and emergency response procedures.

Once installation of the fiber optic cable line is complete there would be no impacts to water resources.

Cumulative Impacts. The installation of the fiber optic cable line, construction of an XBR and the IFICS Data Terminals at Eareckson AS would only affect a very small portion of the base. Although the NMD facilities would result in increased runoff and potential decrease in water quality, the mitigation measures to be incorporated into the final design at each location would maintain the pre-NMD storm water runoff levels and quality so as not to contribute to cumulative impacts. No other programs have been identified that, when combined with the Proposed Action would contribute to cumulative water resources impacts at Eareckson AS.

Mitigation Measures. Best Management Practices would provide all necessary mitigation relative to installation of the fiber optic cable line. All construction and operations would be completed in accordance with state and Federal water resources regulations. No additional mitigation measures for water resources are proposed.

Subsistence

Under the Proposed Action, the installation of a fiber optic cable line to connect the elements of the NMD system would occur at Eareckson AS. This action will have no effect on subsistence, since access to the island is restricted to site-related personnel and no hunting is allowed. In addition, installation of the fiber optic cable line would not affect any

subsistence uses or subsistence resources in the water surrounding the island.

Cumulative Impacts. Eareckson AS could also be the location of an XBR and IFICS Data Terminal as part of the NMD program. However, it still would not change its subsistence status. No other programs have been identified that would contribute to cumulative subsistence impacts.

Mitigation Measures. No mitigation measures would be required.

**APPENDIX F
AGENCY CONSULTATION LETTERS**

TO BE PROVIDED AS PART OF THE COASTAL CONSISTENCY
DETERMINATION PROCESS