# APPENDIX A DISTRIBUTION LIST

## APPENDIX A DISTRIBUTION LIST

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Fort Richardson (Mr. Doug Johnson)

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JNB (Mr. Martin Horechny, Mr. Carlton Brewer, Mr. Mike Trowse)

GMS-A (Mr. Pat Coullahan and Mr. Chris Turletes)

GMS-E (Mr. Eric Sorrells)

JND-A Safety (Mr. Ken Messerich)

JNG-S-S (Mr. Phil Watson)

GME-H (Mrs. Katy Attilio)

JNT-TE (Mrs. Patricia Gore)

National Guard Armory, State Coordinator

ATTN: Mr. Chris Nelson

GMD Prime (Mr. Jim Quinn, Ms. Jean

Downs)

SMDC (Mr. Randy Gallien, Mr. David Hasley, Ms. Vanessa Turner, Ms. Julia Hudson-Elliot, Mr. Steve Donnelly)

USACE HSV (Ms. Lori Mullins)

DISA (Mr. Robert Laskey)

**ELECTED OFFICIALS** 

The Honorable Tony Knowles Governor of Alaska

Lungari AK

Juneau, AK

The Honorable Roy Gilbertson

Mayor of Delta Junction

Delta Junction, AK

The Honorable John Gonzales Mayor of the Denali Borough

Healy, AK

The Honorable James C. Hayes

Mayor

Fairbanks, AK

GMD VOC EA A-1

The Honorable Henry Hove Mayor of the North Star Borough Fairbanks, AK

The Honorable Jeffery James Jacobson Mayor of North Pole North Pole, AK

The Honorable Richard Napoleone Mayor of Anderson Anderson, AK

The Honorable Bob Barkhouse Mayor of Yuba City Yuba City, CA

The Honorable Roy V. Crabtree Mayor of Wheatland Wheatland, CA

The Honorable Jerry Crippen Mayor of Marysville Marysville, CA

The Honorable Cathy Sands Mayor of Auburn Auburn, CA

Mr. Chris Nelson Legislative Information Office Anchorage, AK

#### CONTRACTOR

Teledyne Solutions, Inc. (Mr. Warren Martin, Mr. Ron Keglovitz)

#### **AGENCIES**

Mr. Rick Albright U.S. Environmental Protection Agency Alaska Operations Office Anchorage, AK Mr. Greg Ballogh U.S. Fish and Wildlife Service Anchorage Ecological Services Office Anchorage, AK

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Mr. Chuck Bell, State Conservationist U.S. Department of Agriculture Natural Resource Conservation Service Alaska State Office Anchorage, AK

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State Historic Preservation Officer
Alaska Department of Natural Resources
Office of History and Archaeology
Division of Parks and Outdoor Recreation
Anchorage, AK

Mr. Rex Blazer Alaska Office of Management and Budget Division of Governmental Coordination Juneau, AK

Ms. Michele Brown, Commissioner Alaska Department of Environmental Conservation Juneau, AK

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Fairbanks Agency
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Fairbanks, AK

Ms. Linda Douglass Public Affairs Office Fort Wainwright, AK

A-2 GMD VOC EA

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Adelheid Herrmann Alaska Regional Coordinator Native American Fish and Wildlife Society Anchorage, AK

Mr. Jeff Hughes Alaska Department of Fish and Game Division of Wildlife Conservation, Region 2 Anchorage, AK

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Ms. Nancy Welch, Regional Manager Alaska Department of Natural Resources

Division of Land and Water Management Northern Regional Office Fairbanks, AK

Mr. Everett Robinson Wilson U.S. Department of the Interior U.S. Fish and Wildlife Service Aleutian Ecological Services Region 7 Anchorage, AK

Mr. Curt Wilson U.S. Bureau of Land Management Anchorage, AK

US Dept of Agriculture Rural Utilities Service Northern Regional Division ATTN: Nurul Islam/Charlie Philpott STOP 1566 1400 Independence Avenue, SW Washington DC 20250-1566

#### **LIBRARIES**

Alaska Resources Library and Information Services Anchorage, AK

Alaska State Library Anchorage, AK

Anderson School Library Anderson, AK University of Alaska, Anchorage Consortium Library Anchorage, AK

University of Alaska, Fairbanks Elmer E. Rasmuson Library Fairbanks, AK

Delta Junction Library Delta Junction, AK

Fairbanks North Star Borough Public Library Noel Wien Library Fairbanks, AK

A. Holmes Johnson Memorial Library Kodiak, AK

Beale Air Force Base Military Library Marysville, CA

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Yuba College Library Yuba College Marysville, CA

Coast Guard/MWR Library Attn: Librarian Air Station Cape Cod, MA

Cape Cod Community College Library Librarian West Barnstable, MA

A-4 GMD VOC EA

Sandwich Public Library Reference section Sandwich, MA

Falmouth Public Library Reference Section Falmouth, MA

Mashpee Public Library Mashpee, MA

### REGIONALLY AFFILIATED CULTURAL GROUPS

Ms. Evelyn Beeter Executive Director ML Sanford Tribal Consortium Gakona, AK

Mr. Jack Carpenter President and CEO Bering Straits Native Corp. Nome, AK

Ms. Nora David First Chief Mentasta Traditional Council Mentasta Lake, AK

Ms. Diana Ervin Tanana Chiefs Conference, Inc. Tok, AK

Terry Hoefferle Bristol Bay Native Association Dillingham, AK

Mr. Jerry Isaac Executive Director Native Village of Tanacross (IRA) Tanacross, AK

Mr. Ken Johns President Copper River Native Association Copper Center, AK Mr. Fred Kirsteatter President, Healy Lake Village Fairbanks, AK

Mr. Fore Lekanof Aleutian-Pribilof Island Assoc. Director of Comm. Services Anchorage, AK

Mr. Bentley Mark, Sr. President Native Village of Tetlin (IRA) Tetlin, AK

Ms. Margaret Mathews Tanana Chiefs Conference Fairbanks, AK

Mr. Leo Morgan Executive Director Kuskokwim Native Association Aniak, AK

Ms. Veronica Nicholas President Native Village of Cantwell Cantwell, AK

Mr. Hjalmar Olson President and CEO Bristol Bay Native Corporation Anchorage, AK

Ms. Gloria O'Neill Acting Executive Director Cook Inlet Tribal Council, Inc. Anchorage, AK

Mr. Moses Paul Chief Nenana Native Association Nenana, AK

Mr. John Regitano Executive Director

GMD VOC EA A-5

Fairbanks Native Association Fairbanks, AK

Mr. Berkman Silas Chief Native Village of Minto (IRA) Minto, AK

Ms. Rita Stevens President Kodiak Area Native Association Kodiak, AK

Ms. Nellie Vale Director Yakutat Native Association Yakutat, AK

#### **OTHER**

Mr. Joel Bennett Alaska Representative Defenders of Wildlife Alaska Office Juneau, AK

Mr. Ross Coen Wilderness Campaign Coordinator Northern Alaska Environmental Center Fairbanks, AK

Ms. Janet Daniels Military Toxics Project

Delta Greely Community Coalition

Ms. Melanie Duchin GreenPeace Alaska Anchorage, AK

Mr. Kevin Harun Executive Director Alaska Center for the Environment Anchorage, AK Ms. Sally Kabisch Field Representative Sierra Club, Alaska Field Office Anchorage, AK

B. Long Global Issues

Ms. Pamela Miller Alaska Community Action on Toxics

Mr. Steven Haagenson Golden Valley Electric Assn

Mr. Allen E. Smith The Wilderness Society Anchorage, AK

Ms. Ann Winter Institute of the North

Physicians for Social Responsibility Washington, D.C.

Greenpeace Washington, D.C.

Alaska Action Center Anchorage, AK

Alaska Community Action on Toxics Anchorage, AK

Alaska Public Interest Research Group Anchorage, AK

Kodiak Rocket Launch Information Group Kodiak, AK

No Nukes North: Alaskan & Circumpolar Coalition Against Missile Defense Fairbanks, AK

A-6 GMD VOC EA

Mr. Bruce K. Gagnon Global Network

Mr. Michael Jones University of Hawaii Department of Physics and Astronomy Honolulu, HI

Mashpee Environmental Coalition Mashpee, MA

Richard and Sharon Judge Cape Cod Coalition to Decommission PAVE PAWS Mr. David Adelman Natural Resources Defense Counsel

Mr. Daryl G. Kimball Coalition to Reduce Nuclear Dangers

Ms. Ellen Thomas
Proposition One Committee

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A-8 GMD VOC EA

# APPENDIX B CORRESPONDENCE

TONY KNOWLES, GOVERNOR



#### DEPARTMENT OF FISH AND GAME

HABITAT & RESTORATION DIVISION

1300 COLLEGE ROAD FAIRBANKS, ALASKA 99701-1599 PHONE: (907) 459-7289 FAX: (907) 456-3091

January 30, 2002

Commander, U.S. Army Space and Missile Defense Command Attention: SMDC-EN-V – Mr. David Hasley P.O. Box 1500 Huntsville, AL 35807-3801

Dear Mr. Hasley:

RE: Ground-Based Midcourse Defense Validation of Deployment Concept, Draft Environmental Assessment

The Alaska Department of Fish and Game (ADF&G), Habitat and Restoration Division has reviewed the above referenced EA dated 7 January 2002 and have the following comments:

#### Section 3.3.2 Biology - Eielson AFB (page 3-47, line 26)

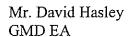
Wildlife – French Creek supports spawning and rearing chum salmon, Piledriver Slough supports migrating (possibly) spawning chum salmon. ADF&G's "Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes" does not identify chinook (king) salmon in these waterbodies. In addition, French Creek and Piledriver Slough support resident fish, e.g., Arctic grayling, whitefish, longnose suckers, and pike.

#### Section 3.6.2 Biological Resources - Clear AFS (page 3-65, line 21)

Wildlife – The Nenana River forms the west boundary of Clear AFS and is designated an anadromous stream. This portion of the Nenana River supports chinook, coho, and chum salmon (migration) along with resident fish (e.g., Arctic grayling, whitefish, pike). Coho salmon spawning areas have been documented approximately 3 miles downstream on the Nenana River. Lost Slough (branches off of the Nenana River at the northwest corner of the boundary) and many of its tributaries are documented as spawning areas for chinook, coho, and chum salmon.

#### Section 3.6.7 INFRASTRUCTURE -Clear AFS (page 3-74, line 35)

Wastewater – For many years, state agencies have had concerns regarding the unwanted goldfish (domestic fish released into the system) that reside in the power plant, cooling pond, discharge ditch, and Lake Sansing. The ADF&G has



offered to assist the U.S. Air Force in eradicating the goldfish, but as far as we know, the problem still exists. The ADF&G feels that unless we completely remove all goldfish from the power plant system, the possibility remains for unauthorized release of these fish into waters of the Nenana River drainage.

Thank you for the opportunity to comment. If you have any questions concerning the above comments, please contact Nancy Ihlenfeldt at (907) 459-7287 or email: <a href="mailto:nancy\_ihlenfeldt-mcnay@fishgame.state.ak.us">nancy\_ihlenfeldt-mcnay@fishgame.state.ak.us</a>.

Sincerely,

Alvin G. Ott, Regional Supervisor Habitat and Restoration Division

cc: Larry Bright, USFWS, Fairbanks

AGO/nji



### United States Department of the Interior Fish and Wildlife Service

NORTHERN ALASKA ECOLOGICAL SERVICES
101 12th Ave., Box 19, Room 110
Fairbanks, Alaska 99701
February 12, 2002



Commander

U.S. Army Space and Missile Defense Command Attention: SMDC-EN-V, Mr. David Hasley P.O. Box 1500 Huntsville, AL 35807-3801

> Re: Ground-based Midcourse Defense Validation of Deployment Concept Draft Environmental Assessment

Dear Mr. Hasley:

The U.S. Fish and Wildlife Service (Service) has reviewed the Draft Ground-Based Midcourse Defense (GMD) Validation of Deployment Concept (VDC) Environmental Assessment (EA). The EA analyzes activities designed to validate GMD deployment, including construction techniques, operational procedures, installation, checkout, assembly, and maintenance. The preferred alternative includes construction and operation of the following: 5 ground-based interceptor (GBI) silos and supporting facilities at Fort Greely, Alaska; command and control facilities, which include interceptor communication system data terminals, defense satellite communication system earth terminals, and fiber optic cable at Fort Greely and Eareckson Air Station (AS), Alaska; and a missile transfer facility at Eielson Air Force Base (AFB), Alaska.

According to the EA, construction and operation components of the GMD will occur in previously disturbed areas at Fort Greely, Eareckson AS and Eielson AFB. This will most likely result in less impact to fish and wildlife resources. Communication towers and power lines could pose significant threats to some species of birds. Bright lights on towers and other tall structures may attract or confuse migrating birds under certain conditions. The final EA should address efforts to avoid, minimize, and mitigate impacts to fish and wildlife resources, with particular emphasis on minimizing the potential of bird strike. The Service is ready to work with the Army on specific design criteria.

The Biological Resources section (3.2.3) of the EA addresses threatened and endangered species in the area of Eareckson AS and waters surrounding Shemya Island. In Table 3-1, "Sensitive Species with Federal or State Status Under the Endangered Species Act Potentially Occurring in the Project Areas," please add the Aleutian Islands population of northern sea otter (Enhydra lutris kenyoni), which is now a Candidate Species and may be proposed for listing under the Endangered Species Act (ESA) in the near future. In Table 3-1 and in the text of Section 3.2.3 (page 3-31 line 24), spectacled eiders are mentioned as being observed during the winter months.

It is highly unlikely that spectacled eiders would be observed offshore of Shemya Island. Furthermore, on page 3-31, lines 18 and 19, the short-tailed albatross is discussed as a candidate species. This species is now listed as endangered in U.S. territorial waters (Gulf of Alaska, Aleutian Islands, Bering Sea Coast) as well as Japan, Russia and the high seas.

There are no threatened or endangered species at Fort Greely or Eielson AFB. The proposed project sites are within the range of the American peregrine falcon (Falco peregrinus anatum), which was removed from the list of threatened and endangered species on August 25, 1999. Although American peregrines are no longer protected under the ESA, we still work with applicants and agencies to avoid impacts to peregrine falcons to assure a healthy long-term population. As long as construction and operation components of the GMD are restricted to previously disturbed areas at Fort Greely and Eielson AFB, the Service believes the proposed project and associated activities are not likely to adversely affect peregrine falcons. However, as construction plans become more specific, we recommend that you contact us so we can compare known nesting sites to construction plans. If any nest sites are near construction projects, we can offer technical advice to minimize impacts.

This letter constitutes informal consultation under the Endangered Species Act. Preparation of a Biological Assessment or further consultation regarding this project is not necessary at this time. If project plans change or listed species are observed on the project site, consultation should be reinitiated by your agency.

We appreciate the opportunity to comment. Please contact Elaine Gross at 456-0209 with any new information on this project, or if you have questions regarding these comments.

Sincerely,

Larry K. Bright
Acting Field Supervisor

**ESG/esg** 

cc: Jeff Williams, Alaska Maritime NWR - Aleutian Islands Unit Greg Siekaniec, Refuge Manager, Alaska Maritime NWR Greg Balough, WAES, Anchorage

## STATE OF ALASKA

## DEPT. OF ENVIRONMENTAL CONSERVATION DIVISION OF AIR AND WATER QUALITY AIR PERMITS PROGRAM

TONY KNOWLES, GOVERNOR

410 Willoughby Avenue, Suite 303

Juneau, AK 99801-1795 PHONE: (907) 465-5100

PAX: (907) 465-5129

TDD/TTY: (907) 465-5040 http://www.state.nk.us/dec/

February 12, 2002

Thomas M. Devanney
Deputy System Program Director
Ground-Based Midcourse Defense
Joint Program Office
P.O. Box 1500
Huntsville, AL 35807

Certifled Mail No.: 7000 0520 0025 2110 3039

Return Receipt Requested

Subject: Permit applicability for the proposed emission sources at the Ground Based Midcourse Defense (GMD) Deployment Concept Validation Test Bed at Eareckson Air Station.

#### Dear Mr. Devanney:

We have reviewed your letter dated January 14, 2002 regarding the permit applicability for the proposed GMD Deployment Concept Validation Test Red (GMD Test Bed) at Eareckson Air Station. GMD Test Bed is a new facility under the control of the Ballistic Missile Defense Organization (BMDO), under separate control from the U.S. Air Force. Based on EPA's guidance for Major Source Determinations for Military Installations, GMD Test Bed is considered a separate facility for air permitting purposes. GMD Test Bed is proposing to install the following emission sources with annual facility emissions estimated in Table 1.

- Twelve 60-kilowatt micro turbines at the Defense Satellite Communication Systems
  (DSCS) facility
- . Two 4,000 gallon above ground storage tanks (AST) at the DSCS facility
- One 2.35 million gallen AST
- One 250 kW emergency generator at the IDT facility
- . One 1,050 gallon AST at the IDT facility

Table 1: GMD Test Bcd Emissions at Eareckson Air Station

|                           | The state of the state of the | (r, r) |      | $\{1, 2, 2, 3\}$ | 1116.00           |      |      |
|---------------------------|-------------------------------|--------|------|------------------|-------------------|------|------|
|                           | 2.35 million gal              |        |      |                  |                   | 1.8  | 0.08 |
| Above ground storage lank |                               | ,      | 3.0  | 9.8              | 3.2               | 3.7  | 0.04 |
| Emergency generator       | 250 KW                        | 45.5.  |      |                  |                   | 0.1  | 0.00 |
| Above ground storage lank | 1,050 gal                     |        |      |                  |                   |      | 0.12 |
| Binergency communication  | 12 x 60 KW                    | 6.0    | 15.4 | 50.4             | 0.1               | 18.6 |      |
|                           | 2 x 4,000 gal                 |        |      |                  |                   | 0.4  | 0.02 |
| Above ground storage lank |                               |        |      |                  |                   | 0.1  | 0.00 |
| Above ground storage tank | 2 x 4,000 gal                 |        |      | 60.2             | 3.3               | 24.7 | 0.26 |
| Facility totals           |                               | 51.5   | 18.4 | i                | •7•• <del>7</del> |      |      |

GMWQIAwq-PermitsIAIRFACSIUSAF EntecksonIGMD permit applicability.duc

Clean Air, Clean Water

GMD Concept Validation Test Bed, Execkson Air Station

The proposed facility does not have fuel-burning equipment with a rated capacity of more than 50 million Btu per hour and does not have sources subject to standards set by 18 AAC 50.055(a)(5), (a)(7) or (d). The facility does not have the potential to violate one or more of the ambient air quality standards as set out in 18 AAC 50.300(b) and is not subject to any other classification as set out in 18 AAC 50.300, and as such does not require a construction permit.

If you have any further questions, please contact Zeena Siddeek at (907) 465-5303.

Sincercly,

Jim Baumgartner

Supervisor, Construction Permits

cc: Bob Cannone, AWQ Air Permits Fairbanks Rex Blazer/DGC, Juncau Mary Siroky/SPS, DEC, Juneau



#### United States Department of the Interior

FISH AND WILDLIFE SERVICE Alaska Maritime National Wildlife Refuge 2355 Kachemak Bay Drive, Suite 101 Homer, Alaska 99603-8021

March 4, 2002

Commander
U.S. Army Space and Missile Defense Command
Attn: SMDC-EN-V (Mr. David Hasley)
P.O. Box 1500
Huntsville, AL 35807-3801

#### Dear Sir:

The following comments are offered in response to your Coordinating Draft Environmental Assessment on the Ground-based Midcourse Defense and Validation of Deployment Concept issued on 7 January 2002. All the comments here apply to Eareckson AS at Shemya only.

#### General Comments

- 1. The environmental restoration section should be expanded to include a discussion on what steps will be taken to remediate facilities when the project is ultimately abandoned.
- 2. There does not seem to be any discussion of the fiber optics cable shown in Fig. 2.6. If the cable is a part of this project, the impacts of bringing it ashore through the shallow subtidal and intertidal zones needs to be discussed. These are particularly important habitats for marine resources.
- 3. Your preparers did not find any of the references for biological resources and few for cultural resources that could have made the description of affected environment much better.

#### Specific Comments

- 1. Page es-5, lines 31-33. This is a place to refer to the draft Memorandum of Understanding between the Air Force and the Alaska Maritime National Wildlife Refuge. Point out that Shemya is part of the refuge and that construction and operation of the facilities will include mitigation of impacts on biological resources.
- 2. Page 2-19, section 2.2.3.5. If it is determined that a man camp is needed at Eareckson, a site should be picked that minimizes the damage to <u>Empetrum nigrum</u>, the main food source for Aleutian Canada geese in fall. The geese pose a hazard to aircraft if they stage near the runway, but when berry production of <u>Empetrum</u> is good, as it was in 2002, the geese remain in the uplands away from the runway and the bird air strike hazard is reduced significantly.

- 3. Page 3-1, lines 4-5. It probably is not true that the "information provided serves as a baseline from which to identify and evaluate environmental changes resulting from construction and operation of the components of the proposed GBI VDC test site. To provide a baseline point of reference for understanding any potential impacts..." If you intend to do this, a good deal more site specific survey data would be needed at least for the biological resources. I suggest you omit the statements as they are misleading. You are identifying areas where impact might occur, but you are not providing baseline from which change may be assessed at any useful scale.
- 4. Page 3-27, line 33. Clarification is needed. The section referred to applies only to Fort Greely.
- 5. Page 3-27, line 35-36. To acknowledge that the ROI includes important wildlife habitats, the paragraph might read, "The ROI for biological resources includes the area within and adjacent to the Proposed Action sites on Eareckson AS and other important wildlife areas on the surrounding Alaska Maritime NWR that could potentially be affected...
- 6. Page 3-28, Vegetation section. You should use terms from the National Vegetation Classification System to describe the vegetation. You suggest that there are only two "associations" on Shemya, beach grass (whatever that is) and "remnants of crowberry tundra". To be helpful in planning, a map of the distribution of the crowberry would be helpful.

You may be correct that there is eelgrass, but please check this. We did not know it was present. Referencing the information sources would be helpful.

7. Page 3-28, Wildlife Section. This section is poorly written. There is no treatment of fish at Shemya only a statement about what is not there compared to elsewhere in the Near Islands. The second paragraph should include a better treatment of introductions, not just foxes but deermice and rats as well. The statement that there are no native terrestrial insects is erroneous.

In the second paragraph, it could be pointed out that Shemya is visited in migration by a high diversity of birds from North America and Asia (refer to the primary literature here).

Line 30, Glaucous-winged gulls are found at Shemya year around, a few nesting on offshore islets, but hundreds feeding in the intertidal zone. The reference to gulls on the runway is not helpful unless you want to talk about all the other species that also occur on the runway.

The emperor goose is not confined to the north shore. If you check some of the Legacy reports that the Air Force funded, you could do a useful summary of numbers and seasonal occurrence of all these species. Emperors, common eiders, and harlequins each number in the hundreds in winter and they use the intertidal and shallow subtidal zones around most of the island along with at least a dozen other species of marine birds.

Asiatic birds including waterfowl, shorebirds, raptors, and songbirds use much of the island not just the north shore bluffs.

8. Page 3-30. Sea otters occur on the north shore as well. There are counts of otters and seals in the Legacy reports and otters should be better described here since they are a candidate for listing under the Endangered Species Act. There is a recent decline. Your statement about trends is dated.

Threatened and Endangered Species: Check the accuracy of Distribution in Table 3-1.

Your preparers may be correct, but the occurrence of bowheads, fins, humpbacks, and right whales near Shemya should be reviewed and supported by primary literature references. As far as I know, Spectacled eiders do not normally occur at Shemya, much less so frequently as to be able to specify the water depth they occupy. Short-tailed albatrosses probably do occur in nearshore waters at Shemya periodically. They are perhaps more likely than some of the whales identified. Aleutian Canada geese visit Shemya from April through June not May through June. Steller sea lions are endangered under federal law, not threatened.

9. Page 3-31, Line 14-15. Some geese remain on Shemya overnight.

Lines 15-17. Shemya is not suitable for nesting recovery efforts because removal of foxes would increase bird populations and therefore increase hazards to aircraft.

Line 21. Short-tailed albatrosses probably occur in low numbers near Shemya annually. Lines 24-27. Leave out discussion about spectacled eider. Leave out nesting area for Steller's eider since you don't add that for albatrosses or Aleutian Canada geese. Steller's eiders probably winter annually in low numbers in nearshore marine waters in the western Aleutians and are seen at Shemya occasionally.

10. Page 3-32. Lines 12-13. Move to beginning of section.

#### 11. Page 3-37. Hazardous Materials Section

Chronic low-level oiling of Shemya beaches has been documented over the past decade (Byrd et al. 1995). The source of the oil is unknown, but it appears to be crude or diesel. Emperor geese and glaucous-winged gulls have been observed with oiled feathers and other species probably also are affected.

12. Page 4-38. Vegetation: add to last sentence (line 8) "except for the loss of Empetrum nigrum, an important fall food for Aleutian Canada geese. Loss of this food might cause geese to shift their feeding distribution to nearer the runway and increase the hazard to aircraft."

Wildlife: add the paragraph: "The movement of equipment and materials to Shemya during construction and operation of the project will increase the probability of introducing invasive species to the island. Care must be taken to prevent the introduction of Norway rats, other rodents, or invasive plants."

Lines 25-26. This is unclear? Of course the refuge encourages maintaining vegetation on the island. Are you referring to some sort of vegetation management?

Sensitive habitats: Refer to Empetrum here and maybe the sensitive intertidal areas and nearshore islands used by nesting seabirds and marine mammals.

Please feel free to contact me if clarification on any of the comments is needed.

Sincaraly

Refuge Manager

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# APPENDIX C COASTAL CONSISTENCY DETERMINATION

#### COASTAL CONSISTENCY DETERMINATION FOR GROUND-BASED MIDCOURSE DEFENSE VALIDATION OF OPERATIONAL CONCEPT 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 Missile Defense Agency (MDA), formerly known as the Ballistic Missile Defense Organization, is responsible for developing and testing the Ballistic Missile Defense System (BMDS). One of the elements of BMDS under development is the Ground-Based Midcourse Defense (GMD), formerly known as the National Missile Defense System. The element of the BMDS program referred to in this document is the GMD Validation of Operational Concept (VOC) Test Bed program. Planned activities for the GMD VOC Test Bed on Eareckson AS include the construction and operation of six Aboveground Fuel Storage Tanks, one In-Flight Communications System (IFICS) Data Terminal (IDT) and communications network support facilities that include one Defense Satellite Communications System (DSCS) facility (with two antennas) and installation of terrestrial fiber optic cable (FOC). Other VOC activities involve Cobra Dane Radar hardware and software upgrades and associated facility modifications and refurbishment of the existing Air Force Power Plant. The appropriate Federal, state, and local environmental permits will be obtained prior to the start of construction. These permits include wetlands, 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 construction and operation of the GMD VOC Test Bed system is consistent to the maximum extent practicable with the Alaska Coastal Management Program. Appendix A evaluates the consistency of the GMD VOC Test Bed 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 GMD VOC Test Bed program activities and the environmental consequences. A detailed description and other supporting documentation are contained in the Coastal Project Questionnaire (CPQ) & Certification Statement submitted to the Alaska Department of Governmental Coordination in September 2001.

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#### APPENDIX A

#### EVALUATION OF ALASKA COASTAL MANAGEMENT STANDARDS FOR THE GROUND-BASED MIDCOURSE DEFENSE VOC ACTIVITIES AT EARECKSON AIR STATION, SHEMYA ISLAND, AK

#### 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 that 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? No, the activities would occur on the inland parts of the island.
- 2. Is the activity water-dependent or water-related? No

#### **Evaluation**

No planned GMD VOC Test Bed activities would occur in a freshwater or saltwater shoreline. Materials will be brought in by barge and off loaded at the existing barge landing area and/or dock.

#### 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 GMD elements. The IFICS Data Terminal and DSCS would be designed and 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:
  - the area receives significant use by persons engaging in recreational pursuits or is a major tourist destination; or
  - 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 pubic 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. Construction of the GMD VOC Test Bed 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
- Are transportation and utility routes and facilities sited inland from beaches or shorelines? Yes
  - If no, is the route or facility water-dependent?
  - If no, please explain how the activity is consistent with this standard:

#### **Evaluation**

Existing transportation and utility routes will be used to the maximum extent possible. New inland utility routes will be required for the IDT and DSCS. The terrestrial FOC will follow existing roadways to the maximum extent possible.

#### 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

 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 processing would be conducted as part of the GMD program.

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.

#### **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 affect fisheries conservation zones or affect 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 affected by the GMD VOC Test Bed 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 GMD VOC Test Bed system will affect 17.44 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.

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.

 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 coastline and would result in no impact to marine species. GMD will 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 GMD 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**

GMD 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 construction of the GMD VOC Test Bed would affect 7 hectares (17.44 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.

#### 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 GMD construction or operation (clearance letter received 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 GMD VOC Test Bed program at Eareckson Air Station. The existing power plant will undergo modification and refurbishment.

#### 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**

Construction 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)?

Yes.

| Consistency Determination:                  |                                                                                                                        |  |  |  |  |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| _                                           | nat the proposed activity complies with, sistent to the maximum extent practicable Program, including affected coastal |  |  |  |  |
| Signature of Agency Representative/Position | <br>Date                                                                                                               |  |  |  |  |

#### APPENDIX B

## ALEUTIANS WEST COASTAL RESOURCE SERVICE AREA COASTAL MANAGEMENT PROGRAM ENFORCEABLE AND ADMINISTRATIVE POLICIES

#### A-1 Water Dependent and Water-Related Activities

All GMD VOC Test Bed activities would occur on the inland parts of the island. Materials will be brought in by barge and off loaded at the existing barge landing area and/or dock.

#### 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 GMD VOC Test Bed construction could affect 7 hectares (17.44 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. During the permitting process the appropriate wetlands mitigation measures would be developed. 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 GMD VOC Test Bed 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 GMD activities will be compatible with the existing and surrounding uses. The island is located in the Alaska Maritime National Wildlife Refuge. 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

17.44 acres of wetland could be filled by construction of GMD VOC Test Bed 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 GMD program activities on Shemya Island.

#### A-8 Floating Facilities

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

#### A-9 Monitoring and Compliance Enforcement

The GMD 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 GMD program.

#### A-12 Optimum Location of Development [Administrative Policy]

Not applicable to the GMD program.

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

The GMD program prepared an EIS that addressed 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. Additional information can be found in the NMD Deployment EIS dated July 2000.

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

Eareckson AS is restricted to the public, however there will be several opportunities for public involvement during planning and permitting. The wetlands permit application will be available for public review and comment during the month of February 2002. The GMD Validation of Operational Concept EA will be available for public review during the month of March 2002.

#### A-15 Unalaska Harbor Management Plan [Administrative Policy]

The GMD program activities will have no impacts on Unalaska.

#### B. Habitat

#### **B-1** State Standards

See evaluation of the Alaska Coastal Management Standards for the Ground-based Midcourse 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 GMD 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 GMD program activities.

#### B-5 Instream Flow

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

#### B-6 Water Removal from Fish Streams

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

#### B-7 Geophysical Surveys

Surveys have been 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 GMD elements. The IFICS Data Terminal and DSCS would be designed and constructed taking into account seismic and wind conditions found on Shemya Island.

#### **B-8** Raptor Nest Sites

GMD 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 coastline and would result in no impact to marine species.

#### **B-10** Threatened and Endangered Species

The Aleutian Canada goose was recently delisted from a threatened species to a recovered one that requires monitoring for the next 5 years. The goose is found on the island from mid April through mid June and mid August through mid October for non-breeding activities, such as staging, resting, and feeding during migration. Feeding occurs over the entire island primarily during daylight hours as the geese return to neighboring predator free islands for the night. The geese do not nest on Shemya Island, and the island is not suitable for nesting recovery efforts due to the presence of humans, rodents, and blue phase arctic fox. (U.S. Fish and Wildlife Service, 2001) Vegetation 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. GMD 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.

The short-tailed albatross is officially listed as a proposed candidate species in Alaska (endangered only on the high seas and in Japan and Russia). Most summer sightings of this albatross are in the Aleutian Islands, Bering Sea, and Gulf of Alaska. Its presence on Shemya Island is considered unlikely. This species has been proposed for listing for the near-shore areas, 5 kilometers (3 miles) out from U.S. shores to correct an administrative oversight.

The threatened spectacled eider may be observed offshore during the winter. The only known regularly occupied nesting area of the Steller's eider in Alaska is now

near Barrow. This eider species may occur in intertidal waters of Shemya Island during the winter.

#### **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 GMD program. The GMD 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 GMD program.

#### C. Air, Land, and Water Quality

#### C-1 State Standards

See evaluation of the Alaska Coastal Management Standards for the Ground-based Midcourse Defense Program Activities on Shemya Island.

#### C-2 Maintain Water Quality Criteria

Best Management Practices and erosion control techniques will be implemented during GMD 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 GMD construction and operations can be easily accommodated by the existing system on Eareckson AS. The system has an existing NPDES discharge permit, that will be updated to include GMD VOC Test Bed operations. Any additional permits required would be obtained before construction begins.

#### C-4 Shoreline Developments

No development would occur along the shoreline.

#### C-5 Environmental Protection Technology

GMD 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 plans will be put in place before construction of GMD 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. GMD construction at the base would reduce the landfill's life expectancy; however, there is room for the landfill to expand, if necessary.

#### C-9 Sewage Disposal

The additional sewage created by GMD construction and operations can be easily accommodated by the existing system on Eareckson AS. The system has an existing NPDES discharge permit, that will be updated to include GMD Test Bed operations. 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 GMD program would follow existing procedures on Eareckson AS regarding spill containment and cleanup. In addition, a Contaminated Media Workplan has been developed for GMD construction activities.

#### C-12 Cumulative Impacts on Air Quality

All necessary air quality permits will be obtained prior to construction and operation of the GMD 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 GMD 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 GMD activities.

#### C-15 Planning and Coordination [Administrative Policy]

The GMD 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 GMD 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 GMD facilities.

#### C-18 Monitoring and Compliance [Administrative Policy]

The Department of Environmental Conservation will be consulted regarding GMD VOC Test Bed program activities and any monitoring requirements.

#### D. Subsistence

#### D-1 State Standards

The construction and operation of GMD 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, construction of the GMD system would not affect any subsistence uses or subsistence resources in the water surrounding the island.

#### D-2 Development Impacts

The GMD 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, construction of the GMD 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,

construction of the GMD 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 GMD activities.

#### E-1 Stream Crossings

No anadromous fish waters occur on Shemya Island, thus no impacts are expected from GMD 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

All GMD VOC Test Bed activities would occur on the inland parts of the island. Materials will be brought in by barge and off loaded at the existing barge landing area and/or dock.

#### E-5 Siting and Scheduling

All utilities will follow the existing road and utility corridors to the maximum extent possible to minimize impacts.

#### E-6 Planning Processes [Administrative Policy]

Eareckson AS is restricted to the public, however the GMD Validation of Operational Concept EA will be available for public review during the month of March 2002.

#### E-7 Unalaska Harbor Management Plan [Administrative Policy]

The GMD program activities will have no impacts on Unalaska.

#### E-8 Regional Solid Waste Facility [Administrative Policy]

GMD 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

GMD 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

GMD 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

GMD 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]

GMD 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]

GMD program activities on Eareckson AS will not impact the surrounding marine waters.

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

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

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

The GMD 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 GMD program.

#### F-9 Commercial Fishing Industry Development [Administrative Policy]

Not applicable to the GMD program.

#### G. Geophysical Hazard Areas

#### G-1 Design and Siting Criteria

The GMD VOC Test Bed program elements would be designed and 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 GMD VOC Test Bed elements will be located within the 100-year floodplain.

#### 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 geologic setting.

#### G-6 Emergency Response Program [Administrative Policy]

Appropriate plans will be developed with applicable agencies to plan response actions in the event 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. Construction of the GMD VOC Test Bed 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. Construction of the GMD 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. Construction of the GMD 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. Construction of the GMD 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. Construction of the GMD 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. Construction of the GMD 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 GMD construction or operation (clearance letter received from State Historic Preservation Office). However, if during the course of GMD 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 GMD construction or operation. All efforts will be made to avoid the known existing cultural sites. However, if during the course of GMD 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 GMD program at Eareckson AS.

#### I-5 Cultural Resource Planning [Administration Policy]

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

#### J. Energy Facilities

#### J-1 State Standards

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

#### J-2 Oil and Gas Development

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

#### J-3 Alternative Energy Resources [Administrative Policy]

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

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

Storage tanks proposed for the GMD elements at Eareckson AS would contain fuel for the electrical generators. All are aboveground and consist of one 2.35 million gal. tank, two 4,000 gal. tanks, two 400 gal. tanks, and one 1,050 gal. tank. All storage tanks installed for the GMD 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 GMD program.

#### K-2 In-stream Mining

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

#### K-3 Best Management Practices

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

#### K-4 Mining in Fish Habitat

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

#### K-5 Overburden Disposal

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

#### K-6 Reclamation and Restoration

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

#### K-7 Restoration Cost Guarantees [Administration Policy]

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

#### K-8 Siting of Material Sources [Administration Policy]

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

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

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

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