



# PROPOSED PLAN FOR OB942 OPEN BURN AREA CAPE ROMANZOF LONG-RANGE RADAR SITE, ALASKA MILITARY MUNITIONS RESPONSE PROGRAM



## HOW YOU CAN PARTICIPATE

You are encouraged to comment on this Proposed Plan. The public comment period begins 11 March 2016 and ends 11 April 2016. The Air Force will accept written, emailed, and voicemail comments during the public comment period. A pre-addressed form is included with this document. All comment letters must be postmarked by 11 April 2016.

Submit comments to:

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This Proposed Plan summarizes information that can be found in greater detail in the Feasibility Study and other documents contained in the information repository file for this site. The Air Force and Alaska Department of Environmental Conservation encourage the public to review these documents to gain a comprehensive understanding of OB942 and the response activities that have been conducted at the Cape Romanzof LRRS.

March 2016



Bering Sea Coast

## U.S. AIR FORCE ANNOUNCES PROPOSED PLAN

This Proposed Plan, developed for the U.S. Department of Defense Military Munitions Response Program (MMRP) proposes a remedy for OB942, Open Burn Area, located at the Cape Romanzof Long-Range Radar Site (LRRS), Alaska. The remedy proposed at OB942 is land-use controls. This Proposed Plan also summarizes the response alternatives evaluated for implementation at OB942. The chemical of concern is munitions constituents associated with small arms debris.

The Cape Romanzof LRRS was established in 1953. Located in the Yukon-Kuskokwim Coastal Lowland region, approximately 560 miles northwest of Anchorage, the site is accessible only by air or water. The closest villages are Scammon Bay and Hooper Bay, which are located approximately 15 miles east and south of the installation, respectively. The installation consists of 4,900 acres divided into two main areas: Lower Camp, where the main camp facilities are located, and Upper Camp, which is situated at the top of Towak Mountain. The two areas are connected by a gravel road and former tramway service. OB942 is located approximately 1,500 feet east of the runway and approximately 100 feet south of the access road to the Lower Camp. The LRRS currently serves as a Minimally Attended Radar Site and is part of the Alaska Radar System managed by the Pacific Air Forces Regional Support Center, a tenant on Joint Base Elmendorf-Richardson (JBER) in Anchorage, Alaska. The Upper Camp occupies the summit of Towak Mountain, which reaches a maximum elevation of 2,300 feet above mean sea level.

This Proposed Plan is issued by the U.S. Air Force as the lead agency for site activities. The Alaska Department of Environmental Conservation (ADEC) is the regulatory support agency. The Air Force will select a final remedy for the site after reviewing and considering all information submitted during the public comment period, and may modify the preferred alternative or select another response action based on new information or public comments. Note that the most recent site investigation at OB942 recommended sampling for various fuel constituents. Fuel characterization will be conducted separately and presented under a separate cover as fuels do not constitute Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) hazardous substances as defined under the Petroleum Exclusion Rule [§101(14)(A) through (F)], and are therefore regulated by the State of Alaska and fall under a separate Department of Defense program, the Environmental Restoration Program (ERP).

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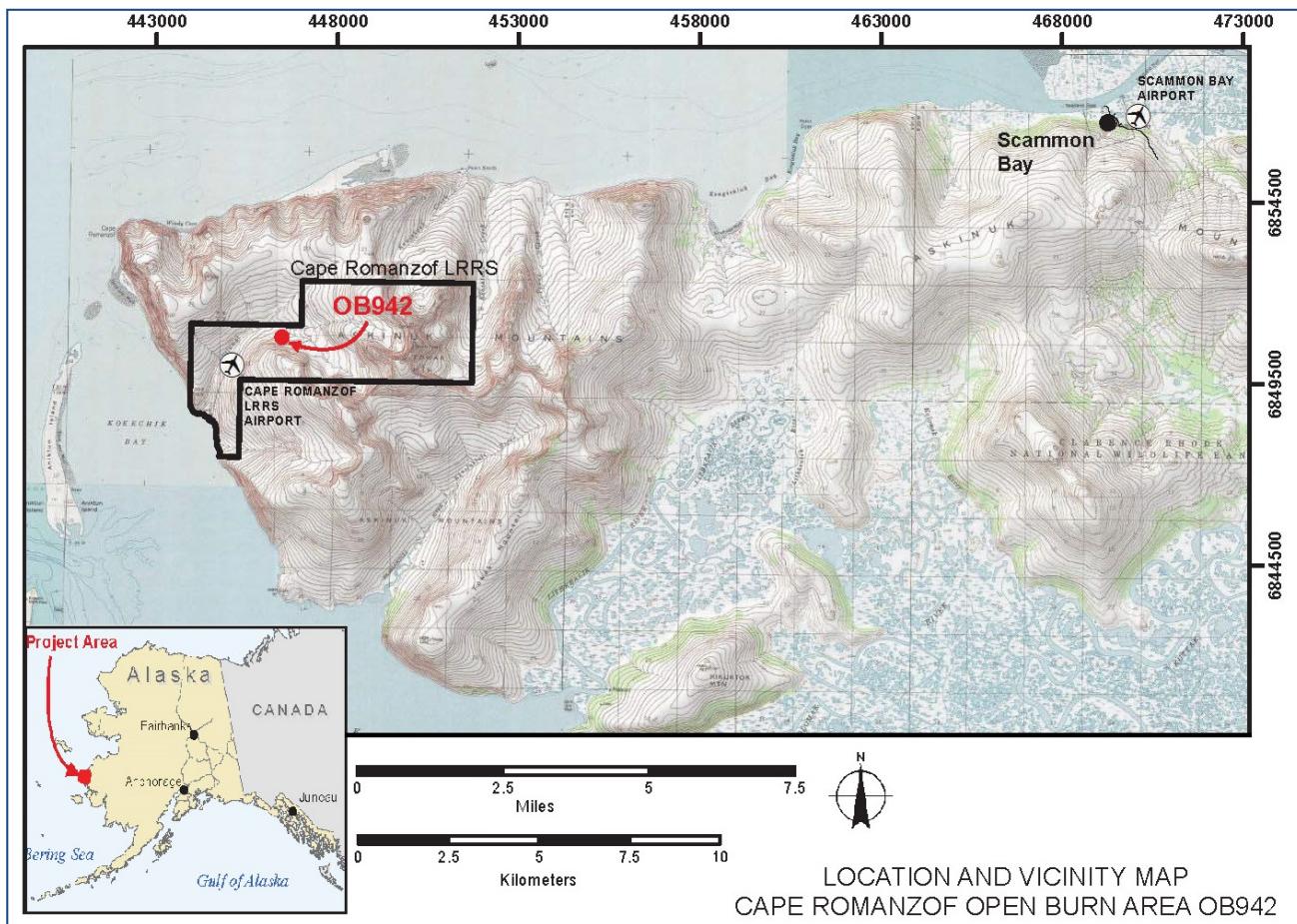
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The public is encouraged to review and comment on this Proposed Plan. The Air Force is issuing this Proposed Plan as part of its public participation responsibilities required under §117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act, U.S. Code Title 42, §9617(a) and §300.430 (f)(2) and (3) of the National Oil and Hazardous Substances Pollution Contingency Plan. Following consideration of public comments, the Air Force will prepare a Record of Decision to document the final response action selected for OB942. The Record of Decision will contain a summary of responses to public comments received.

## SITE BACKGROUND

### *Site Location and History*

Constructed in 1953, the Cape Romanzof LRRS was one of the Aircraft Control and Warning (AC&W) sites built to establish an air defense system in Alaska. This system was replaced with a White Alice Communications System (WACS) in 1958. In 1977, operation of the installation was transferred from military to contractor personnel. In 1979, with the advent of satellite-based communications systems, the facility was phased out and the number of personnel at the site reduced. The technology at the station was upgraded again in 1985 with the installation of a Minimally Attended Radar system. Currently, the facility is managed by four personnel who reside there year-round. Most of the original AC&W/WACS buildings and structures at the Cape Romanzof LRRS were demolished in the mid-1980s.



### Land Use

Current land use of the Cape Romanzof LRRS includes industrial activities associated with operation and maintenance of the radar installation and runway. Current use of nearby lands is minimal; it is unknown to what extent installation personnel use the resources in Fowler (Nilumat) Creek, but with only a few contract personnel occupying the site, use is likely insignificant. Land uses are not expected to change in the foreseeable future.



**Open Burn Area**

### HISTORICAL INVESTIGATIONS

Investigations pertaining to OB942 are summarized below. These documents are available in the Information Repository file for the site. The Air Force and ADEC encourage the public to review these documents to gain a more comprehensive understanding of OB942 and the response activities that have been conducted at the Cape Romanzof LRRS.

Pursuant to the Defense Environmental Restoration Program 10 USC §271(b), the Air Force is implementing a Military Munitions Response Program (MMRP). CERCLA is the Department of Defense's preferred response mechanism for addressing munitions in accordance with a Department of Defense and EPA Memorandum "Interim Final Management Principles for Implementing Response Actions at Closed, Transferring, and Transferred Ranges" (EPA 2000).

### Comprehensive Site Evaluation Phase I/II

Pursuant to CERCLA, a Comprehensive Site Evaluation (CSE) Phase I/II was conducted in 2011 in order to obtain information and evaluate the possible presence of munitions, munitions constituents associated with small arms debris, explosives, and contaminated media at two potential munitions response areas (USACE 2013). The CSE Phase I/II stated that the area contained burned 0.50- and 0.30-caliber rounds; therefore, it is a potential munitions site. Results for both lead and antimony were below the ADEC Method Two soil cleanup levels. Sampling for fuel constituents was recommended, and will be conducted under the ERP in 2016 or 2017. If fuel contamination exceeds acceptable levels as defined by ADEC, the need for additional remediation or measures to protect human health and the environment will be evaluated pursuant to State of Alaska regulations and guidance.

### Feasibility Study

A Feasibility Study prepared in 2015 evaluated potential response technologies to address munitions constituents associated with small arms debris in soil at OB942 (Air Force 2015). The alternatives presented in the Feasibility Study were screened based on site-specific effectiveness, implementability, and cost. The following alternatives were developed and evaluated for addressing soil contamination:

- Alternative 1: No Action
- Alternative 2: Land-Use Controls
- Alternative 3: Capping, Land-Use Controls, and Long-Term Management
- Alternative 4: Removal and Offsite Disposal



Each alternative was subjected to detailed analysis, based on the threshold and primary balancing criteria established under the NCP [Title 40, Code of Federal Regulations, §300.430 (e)]. Refer to pages 7 through 9 for a summary of the alternatives.

## SITE CHARACTERISTICS

OB942 is identified as a munitions response area (MRA) due to the presence of burned .50- and .30-caliber rounds (USACE 2013). The 0.98-acre area is in open, rocky tundra with sparse vegetation. Seventeen ERP sites are located at the Cape Romanzof LRRS, three of which remain open/active: LF003 Landfill Number 2, SS010 Spill/Leak Number 4 (Wells 2 and 3), and SS016/SS017 Former Tramway. The closest ERP site to OB942 is OT005 Road Oiling (USACE 2013). Features include evidence of one or more burn piles with shell casings and projectiles scattered on the open ground and among the rocks and vegetation. Several rusting metal drums are also present. The entire Open Burn Area MRA was recommended for further action; therefore, it was designated as a single munitions response site (MRS). Historical aerial photographs of the Lower Camp from 1963 did not show any evidence of the open burn area at OB942. Through records review, field reconnaissance, and visual surveys of OB942 during the CSE Phase I/II, it was concluded that OB942 is a munitions response area and eligible for investigation under the Air Force MMRP.



Cape Romanzof Installation

## NATURE AND EXTENT OF CONTAMINATION

The primary chemical of concern at OB942 is munitions constituents associated with small arms debris. Additional chemicals of potential concern have been investigated at the site and include metals associated with small-caliber ammunition (lead and antimony) that appear to have been burned onsite. During the CSE Phase I/II (USACE 2013), surface soil up to 12 inches below ground surface (bgs) was sampled for lead and antimony. Analytical results indicated that lead and antimony associated with activities conducted at OB942 are present in surface soil; however, results for both lead and antimony were below the ADEC Method Two soil cleanup levels (400 milligrams per kilogram [mg/kg] for lead and 41 mg/kg for antimony). Lead concentrations ranged from 7.3 mg/kg to 13 mg/kg and antimony results were undetected. Approximately 400 cubic yards of munitions constituents associated with small arms debris and soil and extends an estimated 3 inches bgs.

No evidence of historical use of explosives and no munitions and explosives of concern were observed during the CSE Phase I/II; only small arms debris was observed during the visual survey (USACE 2013). Shells were found within the apparent burn location and associated debris was found nearby. The condition of some of the debris and shells indicated that intact rounds had been burned and exploded from the heat as they appeared to have been shredded or blown apart (USACE 2013). Subsurface anomalies were detected with a metal detector that could potentially indicate buried small arms munitions.

No surface water, sediment, or groundwater data were collected during the CSE Phase I/II; therefore, these are considered potential exposure pathways. Depth to groundwater at the Lower Camp ranges from 1 foot to 60 feet bgs (USACE 2013). Groundwater at LF003, which is upgradient of OB942, was found at 10 to 20 feet bgs. Groundwater is used as the drinking water source for the Cape Romanzof LRRS (USACE 2013). However, a lack of receptors, and a small source volume, the groundwater pathways are likely negligible.

## WHAT IS THE CHEMICAL OF CONCERN?

The Air Force has identified munitions constituents as the main contaminant that poses potential risk to human health and the environment at OB942.

Munitions constituents are materials originating from unexploded ordnance, discarded military munitions, or other military munitions, including explosive and nonexplosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions.

Additional analytes including diesel-range organics; gasoline-range organics; polycyclic aromatic hydrocarbons; and benzene, toluene, ethylbenzene, and xylenes will be sampled as part of the ERP in 2016 or 2017. If these analytes are detected in concentrations that exceed ADEC cleanup levels, they will be addressed under the ERP in accordance with State of Alaska regulations and guidance. A separate decision document will be prepared for any additional analytes that are identified as part of ERP sampling planned for the future.

## SCOPE AND ROLE OF THE RESPONSE ACTION

The preferred response alternative identified in this Proposed Plan is Alternative 2: Land-Use Controls. This alternative fits into the Air Force's overall site environmental restoration strategy to protect human health and the environment from actual or threatened releases of pollutants or contaminants into the environment. The scope of the proposed alternative addresses munitions constituents associated with small arms debris remaining at OB942.

## SUMMARY OF SITE RISKS

Screening level human health and ecological risk assessments performed as part of the CSE Phase I/II were limited to the lead soil sample data collected in 2011.

### *Human Health Risks*

The human health risk assessment concluded that all exposure pathways are complete though likely insignificant, and that neither lead nor antimony were retained as soil chemicals of concern (USACE 2013). None of the surface soil sample results exceeded the U.S. Environmental Protection Agency (EPA) Regional Screening Level for lead (400 mg/kg) or antimony (31 mg/kg). Munitions constituents associated with small arms debris remaining at OB942 warrant remedial action, in order to protect human health and the environment.

Standing surface water or seeps were observed at OB942; however, no surface water, sediment, or groundwater data were collected during the CSE Phase I/II. Wetlands at the Cape Romanzof LRRS are strongly dominated by moist, sloping areas with fewer wetter areas of seasonal flooding and very few areas of persistent standing water. Exposure to contaminants by surface or groundwater at the site is not a current or reasonably expected future pathway. Current use of nearby lands is minimal; it is unknown to what extent installation personnel use the resources in Fowler (Nilumat) Creek, but with only a few contract personnel occupying the site, use is likely insignificant. Land uses are not expected to change in the foreseeable future.

Under the preferred alternative, land-use controls would be implemented to protect human health from exposure to munitions constituents associated with small arms debris. Land-use controls would include controlled access and dig restrictions. CERCLA five-year reviews would be required to evaluate the long-term protectiveness of the remedy (indefinitely).

### *Ecological Risks*

Ecological risk was assessed based on possible ecological receptors and exposure pathways. While concentrations of lead were well below ADEC risk-based cleanup levels for human health, residual lead could potentially be harmful to avian species based on an EPA ecological soil screening level (Eco-SSL) of 11 mg/kg and its ability to bioconcentrate. The maximum concentration of lead detected onsite is 13 mg/kg. Antimony was detected at OB942, but the laboratory was unable to detect concentrations as low as the Eco-SSL (0.27 mg/kg) for mammals. As no site-specific background metals investigation is known to have occurred at the Cape Romanzof LRRS, some uncertainty remains as to whether these low concentrations are naturally occurring or a result of human activities. The maximum detected concentration for lead does not appear to be collocated with the maximum detected concentration of antimony.

### REMEDIAL ACTION OBJECTIVE

The following environmental remedial action objective (RAO) was established for OB942 based on regulatory guidance and the findings of previous investigations, actions, and assessments:

- Minimize or eliminate the potential for site worker exposure to munitions constituents associated with small arms debris, which could present a physical hazard

Achievement of this RAO will be necessary to protect human health and the environment, allowing continued use of the site for the Air Force mission at Cape Romanzof LRRS. Lead and antimony concentrations at OB942 are already below the ADEC Method Two soil cleanup levels (400 mg/kg and 41 mg/kg, respectively, for direct contact/ingestion that are protective of human health) (ADEC 2016).

Soil samples were collected in the vicinity of Cape Romanzof LRRS as part of a mineral resources study by USGS; results from 1982 and 2001 contained elemental lead at 7, 11, 12 and 13 mg/kg, consistent with those identified during the CSE Phase II Investigation at OB942. Antimony was not analyzed by USGS, so no data were available for comparison.

Birds, mammals, and fish can be exposed to residual lead concentrations present in soil through the ingestion of surface water, plants and animals, and soil/sediment, but exposure risks are likely insignificant.

It is the Air Force's current judgment that the preferred alternative identified in this Proposed Plan, or one of the other active measures considered in the Proposed Plan, is necessary to protect public health, welfare, or the environment from actual or threatened releases of pollutants or contaminants from this site which may present an imminent and substantial endangerment to public health or welfare.

## SUMMARY OF ALTERNATIVES

To develop a response strategy for munitions constituents associated with small arms debris at OB942, a conceptual understanding of the volume and location of the debris is needed. Burn piles with more than 100 0.50- and 0.30-caliber shell casings and projectiles were found scattered on the open ground and among the rocks and vegetation (USACE 2013). Several rusting metal drums were also present. It is estimated that approximately 3 cubic yards of munitions constituents associated with small arms debris and 400 cubic yards of debris mixed with the top 3 inches of soil remain at OB942. No exploded ordnance (UXO) are present at OB942.

### *Alternative 1: No Action*

The No Action alternative is required under the NCP and serves as a baseline for comparison to other alternatives. Under the No Action alternative, no activities would be undertaken to treat or remove the contamination present or to otherwise prevent exposure to the contamination. No monitoring would be conducted. Capital Costs: \$0, Annual Operations and Maintenance Costs: \$0, Present Worth Costs: \$0, Estimated Duration: 0 days.

There is a risk of human exposure to munitions constituents and of ecological exposure to site contaminants at concentrations above the Eco-SSL value for lead because no action of any kind would be taken to mitigate the risks that have been identified at this site. Thus, this alternative fails to comply with chemical-specific Applicable or Relevant and Appropriate Requirements (ARAR).

### *Alternative 2: Land-Use Controls*

Under this alternative, land-use controls would be implemented to restrict invasive and residential activities and protect human health from exposure to munitions constituents associated with small arms debris. Land-use controls would include dig restrictions and signage. The Air Force would also file a notice of contamination with the Air Force real property office and with Alaska state land records. The site would be added to the Land-Use Control Management Plan for Pacific Air Forces Regional Support Center installations.

CERCLA five-year reviews would be required to evaluate the long-term protectiveness of the remedy, and additional five-year reviews would be required indefinitely. Capital Costs: \$345,626, Annual Operations and Maintenance Costs: \$30,125, Present Worth Costs: \$429,435, Estimated Duration: 0 days.

This alternative would comply with all chemical-, location-, and action-specific ARARs, including the Alaska Oil and Other Hazardous Substances Pollution Control regulations (18 AAC 75), Clean Water Act, and the Migratory Bird Treaty Act.

### ***Alternative 3: Capping, Land-Use Controls, and Long-Term Management***

Under this alternative, munitions constituents associated with small arms debris at the site would be consolidated into a smaller area and capped with a minimum 2-foot soil cap to create an onsite solid waste monofill. The cap and land-use controls would be implemented to restrict invasive activities and protect human health and the environment from exposure to munitions constituents associated with small arms debris and associated soil. Land-use controls would include dig restrictions and signage and the Air Force would file a notice of contamination with the Air Force real property office and in Alaska state land records. Long-term management would be implemented to ensure the integrity of the cap and inspections would occur once a year for the first five years, then every five years thereafter, indefinitely.

A permeable cap would be appropriate at this location because there are no known contaminants above cleanup levels that could migrate to groundwater. The debris would be consolidated into one pile and then capped. Based on the estimated extent of debris coverage and assuming the top 3 inches of soil would be collected along with the debris into one pile, the cap would need to cover approximately 5,625 square feet and would be constructed with 2 feet of locally available gravel.

The NCP requires that remedial actions that result in any hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure be reviewed every five years to ensure protection of human health and the environment. Therefore, CERCLA five-year reviews would be required to evaluate the long-term protectiveness of the remedy (indefinitely). Capital Costs: \$891,305, Annual Operations and Maintenance Costs: \$35,750, Present Worth Costs: \$1,168,407, Estimated Duration: 32 days.

This alternative would comply with all chemical-, location-, and action-specific ARARs, including the Alaska Oil and Other Hazardous Substances Pollution Control regulations (18 AAC 75), Alaska Air Quality Control Regulations (18 AAC 50, 15), Alaska Solid Waste Management Regulations (18 AAC 60), the Clean Water Act, the Clean Air Act, and the Migratory Bird Treaty Act.

### ***Alternative 4: Removal and Offsite Disposal***

Under this alternative, munitions constituents associated with small arms debris, along with the top 3 inches of soil, would be removed, staged, manifested, and transported for disposal to an RCRA-permitted Subtitle D landfill capable of managing munitions constituents associated with small arms debris. It is assumed that the munitions constituents at the site are safe and do not present an explosive hazard. UXO specialists will conduct an inspection of the constituents prior to their removal. Debris and soil would be removed and staged onsite prior to transport.

The drums would be crushed and placed into Super Sacks. Approximately 400 cubic yards of munitions constituents associated with small arms debris and soil would be removed from the site; when removed, the amount of debris and soil to be disposed of will equate to approximately 480 cubic yards of debris and soil when adjusting for bulk factor.



*Open Burn Area – Burn Location*

The following logistical coordination and manifesting activities would be required for excavating, staging, transporting, and disposing of soil at a licensed treatment, storage, and disposal facility:

- Munitions constituents inspection conducted by UXO specialists
- Loading munitions constituents associated with small arms debris and soil into Super Sacks for transport from OB942 to the barge landing
- Chartering a barge from Cape Romanzof LRRS to Anchorage
- Staging Super Sacks in containers in Anchorage for transport to the treatment, storage, and disposal facility
- Barging containers from Anchorage to Seattle, then trucking containers to a treatment, storage, and disposal facility in the contiguous United States.

Under this alternative, the site would be restored for unlimited exposure/unrestricted use. CERCLA five-year reviews would not be required with this alternative. Capital Costs: \$1,726,536, Annual Operations and Maintenance Costs: \$0, Present Worth Costs: \$1,726,536, Estimated Duration: 24 days.

Alternative 4 could be implemented in a manner that complies with all chemical-, location-, and action-specific ARARs, including RCRA, the Alaska Oil and Other Hazardous Substances Pollution Control regulations (18 AAC 75), Alaska Air Quality Control Regulations (18 AAC 50, 15), Alaska Solid Waste Management Regulations (18 AAC 60), Alaska Hazardous Waste Regulations (18 AAC 62), Clean Water Act, Clean Air Act, Migratory Bird Treaty Act, and U.S. Department of Transportation Regulations.

## EVALUATION OF ALTERNATIVES

In accordance with the NCP, the response alternatives were evaluated against the nine criteria, except state and community acceptance, described in §121(b) of CERCLA and the NCP [40 CFR 300.430(f)(5)(i)] and presented in Table 1 (pg. 10). These criteria are used to evaluate and compare the different remediation alternatives to select a remedy. Table 2 (pg. 10) presents a comparison of the alternatives conducted during the screening process. This section of the Proposed Plan profiles the relative performance of each alternative against seven of the nine criteria, noting how it compares to the other options under consideration. Evaluation of the last two criteria (state and community acceptance) will be conducted after the public comment period reviews would not be required with this alternative.

Table 1 – Remedial Alternative Evaluation System

Category	Evaluation Criteria	Standard	Value
Threshold Criteria	Overall Protection of Human Health and the Environment	Protective; provides adequate risk reduction.	Pass or Fail
	Compliance with ARARs	Complies with ARARs.	Pass or Fail
Primary Balancing Criteria	Long-Term Effectiveness and Permanence	Contaminants are destroyed or removed; no recurrence is possible.	5
		Some contaminants destroyed, removed, or contained.	1 to 4
		Contaminants not removed or contained.	0
	Reduction of Toxicity, Mobility, or Volume through Treatment	Significantly reduces toxicity, mobility, or volume through treatment; no residuals remaining after treatment.	5
		Somewhat reduces toxicity, mobility, or volume through treatment; some residuals remaining after treatment.	1 to 4
		Does not reduce toxicity, mobility, or volume through treatment; significant residuals remaining after treatment.	0
	Short-Term Effectiveness	Protective of community and workers during remediation; no environmental impacts; rapidly meets RAOs.	5
		Somewhat protective of community and workers during remediation; limited environmental impacts; meets RAOs over a period of years to decades.	1 to 4
		Not protective of community and workers during remediation; significant environmental impacts; will not meet RAOs in the near future.	0
	Implementability	Proven, reliable technologies; little or no difficulty in obtaining needed approval, equipment, personnel, and materials. Technical difficulties are expected to	5
		Somewhat unproven technologies; potentially more difficulty in obtaining needed approval, equipment, personnel, and materials. Technical difficulties may	1 to 4
		Unproven technologies; obtaining needed approval, equipment, personnel, and materials could be very difficult. Technical difficulties could prevent	0
	Cost	Estimated present worth cost is listed for each alternative.	Estimate
Modifying Criteria	State Acceptance	To be determined.	N/A
	Community Acceptance	To be determined.	N/A

**Notes:**

<sup>1</sup>State and community acceptance will be evaluated following public comment on the Proposed Plan and addressed when the Record of Decision is prepared.

N/A = not applicable

ARAR = Applicable or Relevant and Appropriate Requirements

RAO = Remedial Action Objective

Values      5 = Fully meets criteria  
               1 to 4 = Somewhat meets criteria  
               0 = Does not meet criteria

**Table 2 – Evaluation of Alternatives**

Evaluation Criteria	Alternative 1: No Action	Alternative 2: LUCs	Alternative 3: Capping, LUCs, LTM	Alternative 4: Removal & Offsite Disposal
Overall protection of human health and the environment	Fail	Pass	Pass	Pass
Compliance with Applicable or ARARs	Fail	Pass	Pass	Pass
Long-term effectiveness, permanence	0	2	3	5
Reduction in toxicity, mobility, and volume through treatment	0	0	0	0
Short-term effectiveness	0	3	3	2
Implementability	5	4	3	3
Cost (in millions)	\$0	\$0.43	\$1.17	\$1.73

**Notes:**

ARARs = Applicable or Relevant and Appropriate Requirements

LUC = Land-Use Controls

LTM = Long-Term Monitoring

Values 5 = Fully meets criteria

1 to 4 = Somewhat meets criteria

0 = Does not meet criteria

## PREFERRED ALTERNATIVE

The preferred alternative for OB942 is land-use controls. Under this alternative, land-use controls would be implemented to protect human health from exposure to munitions constituents associated with small arms debris. Land-use controls would be implemented to restrict invasive and residential activities and protect human health from exposure to munitions constituents associated with small arms debris. Land-use controls would include dig restrictions and signage, and the Air Force would file a notice of contamination with the Air Force real property office and in Alaska state land records. Additionally, the site would be added to the Land-Use Control Management Plan for Pacific Air Forces Regional Support Center Installations.

Munitions constituents associated with small arms debris will remain onsite for more than five years; therefore, CERCLA five-year reviews would be required. The effectiveness of this remedy is dependent upon adequate enforcement, and continued protectiveness must be verified through regular monitoring.

The preferred alternative identified in this Proposed Plan is protective of public health, welfare, and the environment from actual or threatened releases of hazardous substances into the environment. This alternative would comply with all chemical-, location-, and action-specific ARARs, including the Alaska Oil and Other Hazardous Substances Pollution Control regulations (18 AAC 75), Clean Water Act, and the Migratory Bird Treaty Act.

Based on the information currently available, it is the Air Force's judgment that the response actions proposed under Alternative 2, Land-Use Controls, are necessary to protect public health, welfare, and the environment from actual or threatened releases of pollutants or contaminants at OB942.

Alternatives 2 through 4 would be effective. Alternatives 2 and 3 would require extra costs due to the indefinite maintenance of land-use controls. In contrast, Alternative 4 would not require any land-use controls or long-term management. Although not included in the NCP as part of the balancing criteria, Alternative 4 results in greater greenhouse gas emissions relative to the other alternatives due to the use of heavy machinery to remove the soil and debris and load Super Sacks as well as the airplane, barge, and vehicles for offsite transportation. Alternative 4 is the most effective but has higher difficulties in implementability and cost. Alternative 2 is the easiest to implement but does not significantly lower risk compared to Alternatives 3 and 4. Therefore, Alternative 2 meets the RAO outlined in this Proposed Plan (page 6).

Following the receipt of comments on the Proposed Plan for OB942, the alternatives will be further evaluated based on the modifying criteria: state/support agency acceptance and community acceptance. The final response alternative will be presented in a Record of Decision for OB942.

Based on information currently available, the Air Force believes the preferred alternative meets the threshold criteria and provides the best balance of tradeoffs among the other alternatives with respect to the balancing and modifying criteria. However, the preferred alternative can change in response to public comments or new information.

## YOUR OPPORTUNITY TO PROVIDE COMMENTS

The Air Force invites community members to provide comments on the alternatives presented in this Proposed Plan for OB942. Comments provided by the public are valuable in helping the Air Force select a final remedy. You can send your comments in writing using the comment form inserted in this document, provide your comments over the phone by calling 1-800-222-4137, or email your comments to [richard.mauser@us.af.mil](mailto:richard.mauser@us.af.mil).

If a public meeting is held, comments may also be presented at the public meeting. For your convenience, a pre-addressed comment form has been included. If there is sufficient interest for a public meeting, an acceptable meeting date will be scheduled in Hooper Bay, Alaska before 11 April 2016 and the comment period will be extended by an additional 30 days. Following the receipt of comments on the Proposed Plan for OB942, the alternatives will be further evaluated based on the modifying criteria: state/support agency acceptance and community acceptance. The final response alternative will be presented in a Record of Decision for OB942.

The Air Force expects the preferred alternative to satisfy the statutory requirements of CERCLA §121(b): (1) be protective of human health and the environment; (2) comply with ARARs; (3) be cost-effective; (4) utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent possible; and (5) satisfy the preference for treatment as a principal element, or explain why the preference for treatment will not be met. However, this preferred alternative can change based on public comments received during the public comment period or the introduction of new information.

## ADMINISTRATIVE RECORD

The final response action alternative will be selected for the site based on comments from the community. The Air Force and ADEC encourage the public to gain a more comprehensive understanding of OB942 and the response activities that have been conducted at the site. Information concerning the Cape Romanzof LRRS can be found in the Administrative Record files located online at [afcec.publicadmin-record.us.af.mil](http://afcec.publicadmin-record.us.af.mil). Once at the website, click on Cape Romanzof LRRS, Alaska from the installation list on the left side of the page. Then select OB942 from the list of sites and press the Search button. You can also type OB942 into the “Subject or Title” line and select Search to view the Feasibility Study for OB942 or type Comprehensive Site Evaluation into the “Subject or Title” line and select Search to view the CSE Phase I/II.

## REFERENCES

- ADEC (Alaska Department of Environmental Conservation). 2016 (January). *Oil and Other Hazardous Substances Pollution Control*. 18 AAC 75.
- USACE (U.S. Army Corps of Engineers). 2013 (October). *Cape Romanzof Long Range Radar Site Comprehensive Site Evaluation Phase I/II*. Prepared by HDR Environmental.
- AIR FORCE (U.S. Air Force). 2015 (May). *Feasibility Study for OB942 Cape Romanzof Long Range Radar Site*. Prepared by Jacobs Engineering Group Inc.
- EPA (U.S. Environmental Protection Agency). 2007 (March). Interim Final Management Principles for Implementing Response Actions at Closed, Transferring, and Transferred Ranges.
- EPA. 2000. “Interim Final Management Principles for Implementing Response Actions at Closed, Transferring, and Transferred Ranges.”

## **Thank You for Your Comments on the Proposed Plan for OB942 Cape Romanzof LRRS**

Your input on the response action alternatives discussed in this Proposed Plan is important to the U.S. Air Force. Comments provided by the public are valuable in helping us select a remedy. Use the space below to prepare your comments. When you are finished, please fold and mail. A return address has been provided on the back of this page for your convenience. Comments must be postmarked by 11 April 2016.

Alternately, if you would prefer to leave your comments by telephone, please call 1-800-222-4137 and leave a voicemail message. You may also email your comments to [richard.mauser@us.af.mil](mailto:richard.mauser@us.af.mil). You may leave an anonymous message, or you can provide contact information if you prefer to receive a response. If you have questions about the comment process, please contact Richard Mauser at 907-552-0788.

Name:

Address:

City, State, Zip:

Email and/or Phone:





## Comments on Proposed Plan for OB942 Cape Romanzof LRRS, Alaska



Return Address

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## GLOSSARY

***Alaska Department of Environmental Conservation (ADEC)***

– The regulatory body that monitors the enforcement of Alaska's environmental standards.

**ADEC Method Two** – Established cleanup levels for soil for the State of Alaska under Title 18 of the Alaska Administrative Code, Chapter 75.

**Administrative Record (AR)** – A file that contains information used by the Air Force to decide on the cleanup for a contaminated site. This file is available for public review.

**Antimony** – Antimony chlorides are corrosive to skin. Alloying lead and tin with antimony improves the properties of the alloys which are used in solders, bullets and plain bearings.

***Applicable or relevant and appropriate requirements (ARAR)***

– Federal, state, and local standards, requirements, criteria, or limitations that are legally applicable or relevant and appropriate to the site; they can be chemical-specific, action-specific, or location-specific.

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)** – A U.S. Federal law designed to clean up sites contaminated with hazardous substances

***Environmental Restoration Program (ERP)*** –

The U.S. Department of Defense (DoD) program designed to identify, confirm or quantify and remediate problems associated with past environmental releases of hazardous substances and petroleum products. Under this program, sites are prioritized by risk to public safety and the environment.

**Feasibility Study** – A public document required under CERCLA to investigate the potential options available to remediate contamination.

**Land-use controls** – Legal measures that limit human exposure by restricting activity, use, and access to properties with residual contamination.

**Lead** – Lead is used in building construction, lead-acid batteries, bullets and shot, weights. If ingested, lead is poisonous to animals and humans, damaging the nervous system and causing brain disorders. Lead is a neurotoxin that accumulates both in soft tissues and the bones.

**mg/kg** – Milligram per kilogram

***Military Munitions Response Program (MMRP)*** –

DoD program used to protect the public from explosive, environmental, and health hazards from releases of unexploded ordnance, discarded military munitions, and munitions constituents found at locations other than operational ranges.

**Munitions Constituents** – materials originating from unexploded ordnance, discarded military munitions, or other military munitions, including explosive and nonexplosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions.

***National Oil and Hazardous Substances Pollution Contingency Plan (NCP)*** –

The regulations that provide the structure and procedures for responding to discharges of oil and hazardous substances, as directed by CERCLA.

**Record of Decision (ROD)** – A public document that explains which alternative or action will be used to clean up a contaminated site.

***Superfund Amendments and Reauthorization Act (SARA)*** –

An amendment to the CERCLA in order to respond to changes and additions to the program.

***White Alice Communication System (WACS)*** –

A communications system built throughout rural Alaska in the 1950s for military and civilian use.

Cape Romanzof – Facing South





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