

**Alaska Land Mobile Radio Emergency Response
Narrowband Compliance**

**FY2013 Request: \$297,500
Reference No: 33443**

AP/AL: Appropriation

Project Type: Information Technology /
Systems / Communication

Category: Health/Human Services

Location: Statewide

House District: Statewide (HD 1-40)

Impact House District: Statewide (HD 1-40)

Contact: Jennifer Klein

Estimated Project Dates: 07/01/2012 - 06/30/2017

Contact Phone: (907)465-1870

Brief Summary and Statement of Need:

This is a new FY2013 capital project due to cost estimates that were finalized after the December 15 release of the Governor's budget. The purpose of this project is to protect the health and safety of Alaskans by updating base station, handheld, vehicle and probation radios, as well as very high frequency (VHF) emergency communication systems. The equipment and sites are owned by the state and currently in use by emergency medical responders, and juvenile justice and probation officers. Funding is needed to meet the federally mandated conversion to narrowband effective January 1, 2013.

Funding:	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	Total
Gen Fund	\$297,500						\$297,500
Total:	\$297,500	\$0	\$0	\$0	\$0	\$0	\$297,500

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input checked="" type="checkbox"/> On-Going
0% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Additional Information / Prior Funding History:

- CH15/SLA09/P15/L13 \$190,000 GF- DPH
- CH15/SLA09/P16/L13 - \$750,000 GF and \$365,700 Fed - DJJ
- CH29/SLA08/P149/L32 - \$750,000 GF and \$87,800 Fed - DJJ
- CH29/SLA08/P149/L7 \$265,000 GF - DPH
- CH61/SLA01/P19/L17 \$341,600 GF - DPH
- CH135/SLA00/P14/L19 241,600 AHFC Corporate Dividends - DPH
- CH139/SLA98/P51/L11 \$311,600 GF - DPH
- CH50/SLA97/P4/L14 \$200,000 GF - DPH

Project Description/Justification:

Division of Juvenile Justice

The Division of Juvenile Justice (DJJ) needs to transition from wideband two-way radios to narrowband two-way radios to comply with the Federal Communications Commission (FCC) mandate that all two-way radios systems switch to the narrowband technology by January 1, 2013.

By that date, all public safety and business industrial land mobile radio systems operating in the 150-512 MHz radio bands must cease using 25 kHz efficiency technology, and begin using at least

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12.5 kHz efficiency technology. This deadline is the result of an FCC effort that began almost two decades ago to ensure more efficient use of the spectrum and greater spectrum access for public safety and non-public safety users. Migration to 12.5 kHz efficiency technology (once referred to as refarming, but now referred to as narrowbanding) will allow the creation of additional channel capacity within the same radio spectrum, and support more users.

After January 1, 2013, licensees not operating at 12.5 KHz efficiency will be in violation of the FCC's rules and could be subject to FCC enforcement action, which may include admonishment, monetary fines, or loss of license. Loss of DJJ's FCC radio license would mean loss of the ability of Juvenile Justice Officers and Juvenile Probation Officers to communicate with each other and law enforcement agencies around the state. A portion of DJJ's radios are too old to be updated to the narrowband technology and need to be replaced.

Amount	Description
\$ 45,000.00	5 base station radios for facilities in Bethel, Nome, Ketchikan and Juneau
\$ 5,000.00	5 vehicle radios for Bethel and Nome facility/probation
\$ 45,000.00	9 vehicle radios for facilities/probation in Kenai, Ketchikan, Juneau & Mat-Su
\$ 8,000.00	10 handheld radios statewide
\$ 7,240.00	installation/administrative costs
\$ 110,240.00	total

Division of Public Health

This request addresses the immediate need to upgrade nine remaining VHF sites to narrowband capability. During 2009 and into 2010, detail designs were completed; frequency coordination was completed and FCC applications were submitted; new site equipment was ordered, programmed and installations began.

In 2008, the Department of Health and Social Services entered into a reimbursable service agreement (RSA) with the Department of Administration, Enterprise Technology Services (DOA/ETS) to replace the statewide Emergency Medical Services (EMS) radio system with a plan to replace five repeaters a year at an approximate cost of \$200,000 per year, and to support critical emergency repairs as they arise. Replacement of old equipment is not predictable; costs can range from a few thousand dollars for replacement batteries to tens of thousands of dollars if parts have to be flown to the site by helicopter. New communications equipment is only purchased when old equipment fails or becomes obsolete.

During 2011, many sites were switched over to narrowband operations as all area-wide user radios were re-programmed and EMS teams were trained by ETS technicians.

The following nine VHF EMS sites of the original 27 identified remain to be completed. The equipment for these sites has been purchased. Installation at the sites and user radio re-programming is planned for the summer of 2012, estimating an average of \$20,000 per site,

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depending on resources required (i.e. helicopter support, contractors, weather delays). The estimated budget for completion is \$187,200.

Site Name	Highway or Area
1. Chena Dome	Parks Highway *
2. Chulitna	Parks Highway
3. Divide	Richardson Highway *
4. Ester Dome	Fairbanks
5. Garner/Healy	Parks Highway
6. Hurrigan`	Parks Highway
7. Nenana	Parks Highway
8. Reindeer Hills	Parks Highway *
9. Valdez	Prince William Sound

* accessible only by helicopter

The 30-year-old repeater system in its current state cannot be upgraded to narrowband frequencies; outdated equipment at the repeater sites needs to be replaced to accommodate the transition to narrowband. This request will allow strategic replacement and maintenance to ensure that EMS services can continue to rely on the system and communicate with hospitals, fire, search and rescue, and police services.

COORDINATION OF STATE RESOURCES

The Alaska Council on Emergency Medical Services advises the Commissioner of Health and Social Services and the Governor on issues affecting EMS in Alaska. The Council has considered the communication needs of EMS responders around the state and reviewed the Division of Public Health's plan to meet those needs. The plan to continue supporting the VHF EMS systems was developed in coordination with Alaska Land Marine Radio (ALMR) project, DOA/ETS, and with the Department of Military & Veterans Affairs. The Division of Public Health (DPH) will continue to rely on these entities for advice and expertise to determine when emergency responders are fully integrated into ALMR. This project will require DPH to work closely with the DOA/ETS to assess, maintain, and replace repeaters that are identified as critical for the EMS communications system.

Anticipated funding needs in future years:
\$200,000 in FY2015, FY2017, FY2019, and FY2021 for maintenance and emergency repairs