

**AP/AL:** Appropriation      **Project Type:** Information Technology / Systems / Communication

**Category:** General Government      **House District:** Statewide (HD 1-40)  
**Location:** Statewide      **Contact:** Cheryl Lowenstein  
**Impact House District:** Statewide (HD 1-40)      **Contact Phone:** (907)465-5655  
**Estimated Project Dates:** 07/01/2013 - 06/30/2018

**Brief Summary and Statement of Need:**

This project is to upgrade the current Alaska Rural Communications System (ARCS) system from an analog system to a digital system. Information about the Federal Communications Commission (FCC) mandate to convert all low power television from analog to digital transmission has been presented to Department of Administration (DOA) the past several years. These presentations have included project costs.

<b>Funding:</b>	<u>FY2014</u>	<u>FY2015</u>	<u>FY2016</u>	<u>FY2017</u>	<u>FY2018</u>	<u>FY2019</u>	<u>Total</u>
Gen Fund	\$5,300,000						\$5,300,000
<b>Total:</b>	\$5,300,000	\$0	\$0	\$0	\$0	\$0	\$5,300,000

<input type="checkbox"/> State Match Required	<input checked="" type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input 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	0
<b>Totals:</b>	<b>0</b>	<b>0</b>

**Prior Funding History / Additional Information:**

No prior funding history.

**Project Description/Justification:**

By September 1, 2015, all low power television services must be converted from analog to digital in accordance with a FCC mandate. In order for the ARCS service to continue serving rural Alaskans beyond that date, the fleet of analog transmitters must be replaced with digital units. In the interim, it is critical to maintain existing levels of service.

The transition from analog to digital transmitters will significantly expand public service to residents in bush Alaska, primarily by replacing the single-channel distribution platform with a multi-channel system offering 3 or 4 video streams inside the same bandwidth. Such a large scale conversion project will require advance planning and will come with a significant price tag. A report, "ARCS Digital Future Survey", was commissioned by and delivered to the State of Alaska through a planning grant secured by DOA in FY2011.

The state owns ARCS and has operated it in partnership with rural village community organizations for over three decades. The goal of ARCS has been to serve over 200 communities with a free-to-watch over the air television service that is a mix of public and commercial programming which

includes educational children's programs, general entertainment, news and information, weather and special Alaskan events. ARCS programming is delivered to each community via satellite. In addition, ARCS is made available over cable systems which include it as part of their basic tier.

ARCS participates in the Emergency Alert System (EAS) Plan as a statewide relay network delivering emergency alerts and EAS tests to commercial and non-commercial broadcasters and viewers all across Alaska. In the past year, ARCS upgraded its EAS system to adopt the new internet based digital message format for emergency alert and warning systems. Through these measures, ARCS viewers will continue to receive important emergency information in a timely manner.

Twice in the past 16 years the satellite portion of the ARCS system has benefitted from advances in digital technology and infrastructure modernization. Originally the ARCS satellite carried a single channel of content, but in the mid 1990's an update of the satellite distribution system digitized and expanded its capabilities adding capacity and carriage for Public Television, University classroom content, and coverage of the Alaska Legislature. In 2007 a refresh and reorganization of the system resulted in expanded service to include distribution of public radio services including the Alaska Public Radio Network. The most recent advances consolidated the multiple video and audio streams with the goal of serving as the platform by which rural television viewers in ARCS communities would be able to take advantage of the opportunities offered by multichannel digital television. The conversion of the ARCS transmitters from analog to digital will bring that goal to fruition and converting the old analog transmitters to new digital units will breathe new life into the aging infrastructure that makes up the last mile delivery into viewers homes.

Funds will be used for:

1) \$200,000 for the purpose of sustaining ARCS system technology and equipment at current service levels, while moving quickly to secure these capital funds is necessary to replace the aging analog television service with a modern multichannel digital one. On an as-needed basis they would go towards repair of the analog transmitters, modulators, cables, and antennas, as well as the satellite receive equipment that feeds them, including receivers, cables, and parts of the satellite dish antenna such as the LNB, and feed horn.

2) \$5,100,000 for the purpose of meeting the FCC mandate to convert all low power television systems from analog transmission systems to digital transmission systems by September 1, 2015. These funds would pay for the equipment costs to replace the analog system with a digital system by replacing the inside electronics including the transmitter, modulator, satellite receiver, and interconnecting cables, with a new digital transmitter system.