

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA

Item No. 6a

ACTION ITEM

Date of Meeting May 28, 2013

DATE: May 20, 2013

TO: Tay Yoshitani, Chief Executive Officer

FROM: David Soike, Director, Aviation Facilities and Capital Programs
Colleen Wilson, Chief of Police
Peter Garlock, Chief Information Officer

SUBJECT: Radio System Upgrade (CIP #C800586)

Amount of This Request: \$6,750,000 **Source of Funds:** 85% Airport Development Fund
11% Seaport General Fund
4% Tax Levy

Est. State and Local Taxes: \$243,000 **Est. Jobs Created:** unknown

Est. Total Project Cost: \$6,750,000

ACTION REQUESTED:

Request Commission authorization for the Chief Executive Officer to (1) proceed with the Radio System Upgrade project; (2) authorize the procurement of required hardware, software, and vendor services; and (3) authorize the use of Port staff for implementation, for a total project cost not to exceed \$6,750,000.

SYNOPSIS:

The Port of Seattle operates its own mixed-mode radio network supporting approximately 1800 radios and dispatch consoles for Port organizations such as Police, Fire, Emergency Preparedness, Airport Operations, Aviation Maintenance (AVM) and Marine Maintenance. It is also the critical communication link for mutual aid responders within adjacent jurisdictions including King County, City of Seattle, Pierce County, Snohomish County, and Valley Communications Center, who rely on the Port's radio coverage when providing assistance during emergencies.

The Port's radio system was last updated in 2004 and compatible dispatch consoles are no longer available making expansion impossible and replacement parts difficult to acquire. In addition, the vendor certified operating system for our existing dispatch consoles will no longer be supported after April 2014.

The purpose of this project is to upgrade our radio system core hardware and software and dispatch consoles with a current version that meets national compatibility standards. The Motorola equipment, software, and services will be procured with a sole-source competition waiver. AVM, Police, Fire, Marine Maintenance, and Information and Communication

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Technology (ICT) resources will collaborate to complete the project. Total project costs are estimated to be \$6,750,000. This project was included in the Aviation Division's 2013-2017 capital budget and plan of finance funded 100% with the Airport Development Fund. Since this is an enterprise system, the CIP will be transferred to Corporate, and the funding sources will include the General Fund and the tax levy. Recurring hardware license and maintenance costs will be budgeted within the AVM department budget.

Although the King County Regional Communications Board plans to propose a ballot measure in 2014 to fund improvements to the King County Emergency Radio Communications System, the outcome of such a measure is uncertain. As key features of critical infrastructure, the Airport and Seaport factor heavily in response to local or regional emergencies. Postponing upgrade or replacement on an indefinite timeline in conjunction with a 2014 ballot measure could put the Port's radio communications at increasing risk for several years. Investing in an upgrade now mitigates current risks and leaves open the option for consolidation with the King County Emergency Radio Communication System in the future.

BACKGROUND:

The Port of Seattle radio system is comprised of core hardware and software, dispatch consoles, microwave-radio backhaul, repeater towers, and radios. It is a critical system for Portwide emergency response and operations but also reaches well beyond Port of Seattle properties as a vital link for mutual aid responders within adjacent jurisdictions. In cases of regional emergencies, such as an earthquake or aircraft incidents, mutual aid responders will utilize the Port's radio coverage area when providing assistance.

In 1989, public safety agencies and related users across the country created the Project 25 (P25) standards for digital radio communications to enable efficient, reliable intra-agency and inter-agency communications. The Port and Puget Sound Tri-County regional agencies are all moving towards compliance with this industry standard to develop seamless regional roaming.

Following the terrorist attacks of September 11, 2001, government agencies have been cooperating nationwide to improve the flow of information to all emergency responders during crisis situations. As a result, the Port actively participates in King County's emergency preparedness drills, working with the county to be fully prepared to respond in readiness for large-scale incidents. In addition, every three years the Airport hosts a region-wide aircraft disaster drill in coordination with the Federal Aviation Administration as mandated by federal regulations. In all these, inter-agency communication and regional roaming capability is a crucial component to a successful response.

PROJECT JUSTIFICATION:

The Port's radio system, comprised of aging equipment and obsolete technology, was last updated almost 10 years ago. Compatible dispatch consoles are no longer available making expansion impossible and replacement parts difficult to acquire. Failure of this equipment or an inability to meet new requirements will reduce the effectiveness of the system and could disrupt communication during an emergency response.

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The upgrade of the radio system core to a version that meets P25 standards will provide several improvements such as spectral efficiency, increased capacity, over-the-air programming, and Global Positioning System (GPS) tracking as well as lay the foundation for inter-agency seamless roaming.

Project Objectives:

- Upgrade the Port's radio system core and dispatch consoles to the most current versions that are fully supported by the vendor.
- Improve inter-agency communication capability by moving towards full P25 compliance.

PROJECT SCOPE OF WORK AND SCHEDULE:

Scope of Work:

- Procure and install the Motorola Core hardware and software with Inter-Radio Frequency Subsystem Interface (ISSI) connectivity.
- Procure and install approximately 24 dispatch consoles.
- Upgrade the Port's audio recording equipment to support P25 digital audio.
- Establish an ISSI connection with King County Radio Network.

Schedule:

Commission Approval	May 2013
System Design Complete	July 2013
Procurement Complete	October 2013
Installation Complete	April 2014

FINANCIAL IMPLICATIONS:

Budget/Authorization Summary:

	Capital	Expense	Total Project
Original Budget	\$8,200,000	\$0	\$8,200,000
Budget reduction	-\$1,450,000		-\$1,450,000
Revised budget	\$6,750,000		\$6,750,000
Previous Authorizations	\$0	\$0	\$0
Current request for authorization	\$6,750,000	\$0	\$6,750,000
Total Authorizations, including this request	\$6,750,000	\$0	\$6,750,000
Remaining budget to be authorized	\$0	\$0	\$0
Total Estimated Project Cost	\$6,750,000	\$0	\$6,750,000

Project Cost Breakdown:

	This Request	Total Project
Hardware/Software	\$2,582,000	\$2,582,000
Vendor Services	\$2,300,000	\$2,300,000
Port of Seattle Labor or Contractors	\$480,000	\$480,000
State & Local Taxes (estimated)	\$243,000	\$243,000
Contingency ~20%	\$1,145,000	\$1,145,000
Total	\$6,750,000	\$6,750,000

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Budget Status and Source of Funds:

This project was included in the Airport 2013-2017 capital budget and plan of finance as a business plan prospective project with a budget of \$8,200,000 within CIP #C800586, Radio System Upgrade. The budget savings of \$1,450,000 will be transferred to the Aeronautical Allowance CIP, C800404. CIP #C800586 is currently funded 100% with the Airport Development Fund. Since a primary driver for the upgrade is to maintain compatibility with regional safety and emergency response agencies, staff recommends a transfer of the CIP to Corporate and a funding split that mirrors Police and Fire allocations. The recommended source of funds is 85% Airport Development Fund, 11% Seaport General Fund, and 4% Tax Levy. Estimated training costs of \$40,000 will be funded from the Aviation Maintenance Operating Budget.

Financial Analysis and Summary:

CIP Category	Renewal/Enhancement
Project Type	Technology
Risk adjusted discount rate	N/A
Key risk factors	N/A
Project cost for analysis	\$6,750,000
Business Unit (BU)	Allocated to all business units within Aviation, Seaport and Real Estate divisions.
Effect on business performance	Will reduce NOI after depreciation.
IRR/NPV	N/A
CPE Impact	\$.03 in 2015, but no change to business plan forecast as this project was included.

Lifecycle Cost and Savings:

An additional \$100,000 in annual recurring cost is estimated to cover a hardware maintenance agreement for the new equipment. This will be budgeted within the Aviation Maintenance Operating Budget. Port recurring labor costs to maintain the system are not expected to change.

STRATEGIC OBJECTIVES:

This project supports the Century Agenda strategy to advance this region as a leading tourism destination and business getaway. This project ensures the availability of communication infrastructure vital for public safety, emergency response, and operations.

BUSINESS PLAN OBJECTIVES:

This proposed solution will support the Airport's strategy of operating a world class international airport by ensuring safe and secure operations. Specifically, it will support the Port's Police and Fire plan for regional inter-agency communication capabilities and expanded regional roaming.

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ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS:

1. *Move to current King County Radio System Core:* This alternative will require the reprogramming of all 1800 Port of Seattle radios as well as 18,000 radios for all King County regional agencies. This effort is estimated to take two to three years and will require extensive mitigation to reduce the risk of inter-agency communication outages. This is not the recommended solution.
2. *Delay upgrade until completion of proposed King County Radio project vendor selection:* The King County Regional Communications Board is planning a 2014 ballot measure to fund improvements to the King County Emergency Radio Communications System. Because of the uncertainty of the ballot measure outcome and the unknown timeline for an upgrade or replacement, the Port's radio communications could be at increasing risk for several years. An investment today will mitigate current risks and leave open options for consolidation in the future. This is not the recommended solution.
3. *Upgrade the Port's Core Hardware and Software and replace Dispatch Consoles:* Upgrade and replacement of the Port's Radio System Core and dispatch consoles will significantly reduce risk of critical system outages, provide capacity for potential growth, and meet regional standards that will support inter-agency communication. Consolidation with the King County Emergency Radio Communication System will remain a viable option in the future. **This is the recommended solution.**

OTHER DOCUMENTS ASSOCIATED WITH THIS REQUEST:

None.

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS:

On October 9, 2012, the Port Commission received a briefing on the status of the Port Radio System.