

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA

Item No. 5c

Date of Meeting February 28, 2012

DATE: February 21, 2012

TO: Tay Yoshitani, Chief Executive Officer

FROM: Michael Ehl, Director, Airport Operations

SUBJECT: Flight Information Management System (FIMS) - CIP #C101117

Amount of This Request: \$2,820,000 **Source of Funds:** Airport Development Fund

Est. Total Project Cost: \$8,220,000 **Est. No. of Jobs:** 0

Est. State and Local Taxes: \$206,000

ACTION REQUESTED:

Request Commission authorization for the Chief Executive Officer to: 1) proceed with construction and authorize the use of Port crews for construction activities, 2) approve additional project scope and budget of \$2,820,000, 3) amend consulting agreement with URS Corporation from \$192,800 to a total of \$660,000 for additional scope design and construction support activities, 4) amend consulting contract with InterSystems USA, Inc (ITS) from \$350,000 to \$650,000, and 5) dispose of surplus equipment in accordance with Port Policy PUR-1 to deliver the FIMS Phase II Project. The estimated total cost for this project is \$8,220,000. In addition, this memo provides notification to the Port of Seattle Commission in accordance with RCW 53.19.060 that the amended amounts for URS Corporation and ITS exceed 50% of the original contract value.

SYNOPSIS:

This is the second of two planned Commission authorizations for this project to upgrade the computer management system and monitors that drive arriving and departing flight information displays in over 50 locations using nearly 450 individual monitors throughout the Airport and on the Port's web site. While travelers easily see and rely on the flight information displays, this complex computer system will drive many other services that are not easily seen, but are just as vital including: real-time monitoring to notify staff of localized problems or failures, database management of information that benefits airline operations such as bag carousel controls' security enhancements, and visual paging capability to meet Americans with Disabilities Act requirements.

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On May 4, 2010, the Port Commission authorized the procurement of software, the purchase of materials, and the design of casework changes for the replacement FIMS at Sea-Tac International Airport. This request includes authorization to complete the casework construction activities using Port Construction Services and small works contractors for the original estimate of \$1,600,000 as well as authorization for scope changes in the amount of \$1,220,000. The proposed scope change includes the replacement of additional aging displays; improved software functionality that will enhance the Port's ability to maintain the system; meet airline requests for signage flexibility and quicker resolution of issues, and provide better customer service; and allow for the transition of system support from Information & Communication Technology (ICT) to Aviation Maintenance. Lifecycle costs are reduced because of the installation of the new system

An amendment to the URS Corporation contract from \$192,800 to a total of \$660,000 is required to complete design work on the replacement of additional displays and perform construction support activities. An amendment to the ITS contract from \$350,000 to \$650,000 is for the software development of functionality not included in the original scope of the FIMS project.

BACKGROUND:

The May 4, 2010, Commission authorization approved the first phase of a two-step process to competitively procure, develop, and install a replacement FIMS that provides a flexible display framework for flight information, visual paging, and emergency notification features; upgraded monitors and infrastructure hardware; and a redesigned resource management system. Phase two was identified for approval of casework construction elements.

Since the initial phase authorization, the following activities have been completed:

- Competitive procurements of major system software components
- Design for casework modifications required to fit new display dimensions and improve visibility for customers
- Detailed analysis of architecture, hardware infrastructure, and integrated components such as real-time airline flight information, visual paging, security breach notifications, and baggage keypads.

PROJECT JUSTIFICATION:

Project Objectives:

- Replace the current Flight Information Display System (FIDS) with a flexible display architecture that will meet current and future requirements for information dissemination.
- Deliver a visual paging solution that meets the needs and includes the recommendations from the persons with disabilities and special needs community while complying with all regulatory requirements. By utilizing common displays, the cost of stand-alone custom signage is avoided.

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- Upgrade displays with devices that require little or no maintenance and have a high mean time to failure.
- Provide real-time automated system monitoring to immediately notify staff of any system problems.
- Implement a resource management system that meets the operational needs of the Airport and its airline customers.

To support the objectives, additional scope has been identified as follows:

- Aging displays not originally included in the project scope have been identified as past their designed end-of-life. These displays are showing increasing failures and need to be replaced to ensure passenger access to critical flight information. As part of the replacement, casework modifications will be made to facilitate maintenance and improve customer access to flight information. All displays removed will be recycled or made available for sale according to Port Policy PUR-1.
- Several software improvements such as hardware auto-recovery, flight filtering, and the ability for airlines to run their proprietary systems through Port infrastructure will satisfy several airline requests and enhance maintenance processes.
- To support the Port's collective bargaining agreement, the system will be supported by the Aviation Division's represented labor organization in the Aviation Maintenance Department. This will require additional hardware and labor to ensure a solid understanding of system components to support this important system.

PROJECT SCOPE OF WORK AND SCHEDULE:

Scope of Work:

This authorization includes the following scope of work.

- Casework construction for new displays throughout Airport using Port Construction Services and small works contractors;
- Procurement and implementation of additional software functionality that improves our ability to maintain the system, meet airline requests, and provide better customer service;
- Procurement and design of additional aging flight information displays.

Schedule:

Second Phase Commission Approval	February 2012
Display Replacement Begins	April 2012
Flight Information Display Software Deployment	July 2012
Resource Manager Software Deployment	April 2013
Display Replacement Complete	December 2013

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FINANCIAL IMPLICATIONS:

Budget/Authorization Summary:

Original Budget	\$7,000,000
Budget Increase	\$1,220,000
Budget Transfers	\$0
Revised Budget	\$8,220,000
Previous Authorization	\$5,400,000
Current request for Authorization	\$2,820,000
Total Authorization, including this request	\$8,220,000
Remaining Budget to be Authorized	\$2,820,000

Project Cost Breakdown:

Hardware	\$334,000
Personal and Professional Services	\$1,001,000
Port Labor	\$1,485,000
Total Phase II Funding Request	\$2,820,000

Budget Status and Source of Funds:

This project, with a budget of \$7.0 million, was included in the 2012-2016 capital budget and plan of finance within CIP #C101117, FIMS Phase II. The budget increase will be covered by a transfer from the Aeronautical Renewal & Replacement Allowance (CIP # C102166), resulting in no net change to the 2012-2016 capital budget and plan of finance. The source of funds for this project is the Airport Development Fund.

Financial Analysis and Summary:

CIP Category	Renewal/Replacement
Project Type	IT (Information Technology)
Risk adjusted Discount rate	N/A
Key risk factors	N/A
Project cost for analysis	\$8,220,000
Business Unit (BU)	Terminal
Effect on business performance	NOI after depreciation will increase
IRR/NPV	N/A
CPE Impact	\$.06 in 2014, but no change from forecast as this project was included in business plan forecast

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Lifecycle Cost and Savings:

Annual savings of \$282,000 have been identified from this project in the year after project completion based on an alternative of supporting the current system and implementing a stand-alone visual paging system. Software license and vendor service costs will be reduced by \$174,000. Parts and Port labor costs are estimated to be reduced by \$108,000. The system software has an expected life of five years and the casework constructed during this project has an expected life of ten years.

ENVIRONMENT AND SUSTAINABILITY:

This project will replace approximately 450 displays at their end-of-life throughout the facility. New display technology is projected to improve energy consumption by 40% and lower operability and maintenance costs. In addition, the flight information display software includes functionality that will extend the life of the displays through scheduled rest periods.

STRATEGIC OBJECTIVES:

This project supports the following Port strategies:

- *Ensure Airport and Seaport vitality:* The reduction of maintenance and operations costs positively impacts the cost to the airlines. There are also potential future revenue opportunities for the Port by placing advertising on flight information displays.

BUSINESS PLAN OBJECTIVES:

Installation of these systems and displays supports the Airport's strategy to provide improved customer service. The project will improve the reliability of flight information for passengers and our airline partner operations as well as offer improved access and visibility through new display technology and better display configurations.

TRIPLE BOTTOM LINE SUMMARY:

This project will benefit passengers by ensuring the continued availability of a system critical to manage Airport resources such as gates, ticket counters, and baggage carousels and display flight information for passengers. The environment will gain a modest but long-term benefit by replacement of over 450 aging monitors with energy efficient devices that will reduce power consumption. Our consumers and community benefit by the integration with notification and security breach systems that improve safety.

ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS:

Alternative 1 - Complete casework construction and implement additional scope: Expand the construction scope to include the replacement of 16 additional aging LCD displays, allow for

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increased system functionality through software customizations, relocate the Concourse A exit multi-use flight information display. **This is the recommended alternative.**

Alternative 2 - Complete casework construction without implementing additional scope: This would leave monitors in operation that are at the end of life and decrease the efficiency of reporting as these monitors may not have the ability to provide the necessary functionality required. This will also result in multiple display manufactures and off-cycles for renewal and replacement. This is not a recommended alternative.

Alternative 3 - Do Nothing: This alternative risks system failure and disruption to customer activity. This is not the recommended alternative.

OTHER DOCUMENTS ASSOCIATED WITH THIS REQUEST:

None.

PREVIOUS COMMISSION ACTION:

On May 4, 2010, Commission authorized to approve all work and contracts including executing and amending any and all necessary contracts and service directives to purchase and implement ICT hardware and software; plus casework design services for the FIMS Upgrade Project in an amount not to exceed \$5,400,000 toward an ultimate project cost of \$7,000,000.