COMMISSION AGENDA	**Item No.**	4c
ACTION ITEM	**Date of Meeting**	July 12, 2016

DATE: July 5, 2016

TO: Ted Fick, Chief Executive Officer

FROM: Dave Wilson, Chief Aviation Technologist
Peter Garlock, Chief Information Officer

SUBJECT: Passenger Flow Information System (CIP #C800709)

Amount of This Request:	$1,331,000	**Source of Funds:**	Airport Development Fund
Est. Total Project Cost:	$1,331,000		
Est. State and Local Taxes:	$28,000		

ACTION REQUESTED

Request Commission authorization for the Chief Executive Officer to (1) proceed with the Passenger Flow Information System project; (2) procure required hardware, software, vendor services, and maintenance; and (3) use Port staff for implementation, for a total project cost not to exceed $1,331,000.

SYNOPSIS

As passenger enplanements continue to grow the collection and use of real time passenger movement data is critical for operations and effective customer communication. The Airport Passenger Flow Information project will utilize a variety of technologies to predict and record traffic flow at Security Checkpoints. This will allow us to efficiently adjust staffing levels, better inform TSA, and provide valuable information to passengers concerned about making their flight.

This project will procure a passenger flow information system via a competitive procurement and install for Airport security checkpoints 2 through 5. Checkpoint 1 is currently used only for training and airline personnel. Information & Communication Technology (ICT), Aviation Maintenance, and Port Construction Services (PCS) resources will complete the project.

BACKGROUND

Data from the 2011 to 2015 Airport Service Quality (ASQ) survey indicates that waiting time at security checkpoints is consistently one of the most important service items among the 28 items measured. The ASQ also shows that Sea-Tac Airport is rated lower for this service item than most comparable domestic airports. In addition, service at security checkpoints consistently

ranked in the top five complaints at Sea-Tac Airport from 2011 to 2015, as collected in the Port of Seattle Comment Tracking System.

Through the security checkpoint task force, formed to improve wait times for Sea-Tac, an effort was launched to provide manually calculated wait times on existing flight information displays and the Airport Wi-Fi introductory page. The information is also available to external partners via a data feed. These wait time estimates have a 15 minute range, are only available during peak hours, and require dedicated staff to log the information.

PROJECT JUSTIFICATION AND DETAILS

Good customer service is an important Airport strategy and checkpoint wait times have one of the biggest impacts on our traveling public. With record increases in passengers expected in 2016, checkpoint processing has ballooned to over an hour during peak times. This increases the anxiety and frustration of all passengers.

Project Objectives

Provide accurate security checkpoint wait times to:

- Lessen the apprehension felt by many passengers when faced with long lines and uncertainty on whether they will make their flight.
- Allow travelers to self-select their preferred checkpoint to better balance queues.
- Provide real-time queue measurements and statistics to airport staff to enable them to better respond to wait times resulting in negative customer service impact; and trending data used to measure the benefits from performance improvement process changes.

Scope of Work

- Procure and install an automated passenger flow system that will track the density and movement of passengers using a system of cameras and other sensors.
- Development of a new feature for the SeaTac Mobile Application, currently in development, that will provide users the current wait times for the 4 security checkpoints.
- Update the current wait time displays and data feed to reflect the automated content.

Schedule

Commission Approval	July 2016
Procurement Complete	January 2017
Project Complete	March 2018

FINANCIAL IMPLICATIONS

Budget/Authorization Summary	Capital	Expense	Total Project
Original Budget	$1,000,000	$0	$1,331,000
Budget increase	$215,000	$116,000	$331,000
Revised budget	$1,215,000	$116,000	$1,331,000
Previous Authorizations	$0	$0	$0
Current request for authorization	$1,215,000	$116,000	$1,331,000
Total Authorizations, including this request	$1,215,000	$0	$1,331,000
Remaining budget to be authorized	$0	$0	$0
Total Estimated Project Cost	$1,215,000	$116,000	$1,331,000

Project Cost Breakdown	This Request	Total Project
Hardware	$48,000	$48,000
Software license and vendor services	$300,000	$300,000
Equipment installation	$525,000	$525,000
Software configuration and testing	$310,000	$310,000
Permitting	$0	$0
State & local taxes (estimated)	$32,000	$32,000
Total Capital	**$1,215,000**	**$1,215,000**
RMM	$106,000	$106,000
Training	$10,000	$10,000
Total Expense	**$116,000**	**$116,000**

Budget Status and Source of Funds

Total project costs are estimated to be $1,331,000 which includes capital funds of $1,215,000 and $116,000 for regulated materials management (RMM) and training. $1,000,000 in funding for this project was included in the 2016-2020 capital budget and plan of finance. The remaining $215,000 for the capital funding will be transferred from the aeronautical allowance CIP (C800404) to the project (C800709) resulting in no net change to the Aviation Division capital 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	$1,331,000
Business Unit (BU)	Terminal Building
Effect on business performance	N/A
IRR/NPV	N/A
CPE Impact	$. 01

Lifecycle Cost and Savings

Maintenance and support for this system is estimated at $75,000 annually which includes $35,000 in Port Labor and $40,000 for the software license and parts. This will be budgeted in the ICT and Aviation Maintenance Operating Budgets.

STRATEGIES AND OBJECTIVES

This project will support the following Century Agenda and Aviation Strategic Goals.

- Advance this region as a leading tourism destination and business gateway
- Meet the region's air transportation needs at Sea-Tac Airport for the next 25 years
- Position the Puget Sound region as a premier international logistics hub

As passenger numbers grow and congestion at security checkpoints increases, the traveler experience at Sea-Tac gets more frustrating. The dissemination of security checkpoint wait times is an important customer service initiative to alleviate anxiety and balance checkpoint queues.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Continue to display wait times using manually collected data

Cost Implications: $60,000 per year

Pros:

(1) Capital and expense funds of $1,331,000 can be allocated to other projects

Cons:

(1) Wait times will rely only on the estimates from airport staff and will not get more granular than 15 minute increments.
(2) It is not realistic that staff are allocated 24 hours per day so wait times would only be available during peak periods. Since travelers will check wait times no matter their traveling hours, it will be important to have this information at all times.
(3) The collection of manual data for wait time display is new and not yet fully validated in a production environment.

This is not the recommended alternative.

Alternative 2 – Procure an automated passenger wait time information system

Cost Implications: $1,331,000

> Pros:

> > (1) Information from an automated wait time calculation covering 24 hours will provide the best customer service experience for travelers moving through our security checkpoint areas.
> > (2) Resources previously dedicated to manually collecting wait times can be allocated to positions with a greater impact on customer service.

> Cons:

> > (1) Equipment for this technology is extensive and will require the installation of camera or other sensors in the areas that are already congested. While every effort will be made to minimize disruptions during deployments, there may be unavoidable impacts to operations.

This is the recommended alternative.

ATTACHMENTS TO THIS REQUEST

- None.

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- June 25, 2013 – A request for authorization to move forward with a security checkpoint wait time project was postponed for further consideration. It was later deferred by Airport Management.