



**COMMISSION
AGENDA MEMORANDUM**

Item No. 6d

ACTION ITEM

Date of Meeting January 22, 2019

DATE: January 10, 2019

TO: Stephen P. Metruck, Executive Director

FROM: Wendy Reiter, Director Aviation Security

SUBJECT: Perimeter Intrusion Detection System (CIP #C800844)

Amount of this request: \$3,520,000

Total estimated project cost: \$10,000,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to authorize to (1) proceed with the first phase in the Perimeter Intrusion Detection capital project at Seattle-Tacoma International Airport; (2) procure required hardware, software, vendor services, and license and maintenance; and (3) use Port staff for implementation, for a total phase one cost not to exceed \$3,500,000 and estimated training of \$20,000. A 10-year contract for license and maintenance fees is estimated at \$420,000.

EXECUTIVE SUMMARY

The purpose of this authorization request is to create an additional security layer for portions of the Airport perimeter using technology for continuous monitoring, threat assessment, and alerts. This improved capability is an important part of the Aviation Security Plan.

Perimeter detection systems include a range of technologies that provide reliable detection of an intruder, and integrated with a video surveillance system, allow for visual verification and assessment for appropriate security or operational response. Enhanced perimeter intrusion detection (PIDS) at Sea-Tac airport is most economically provided using a variety of technologies appropriate for the selected coverage areas. Radar or similar technology can cover a large amount of the visible perimeter with centrally located detection devices. In areas with visibility obstructions, integrated fencing systems will better meet security requirements. This layered approach for perimeter security improvements will advance the Port's capabilities to detect and analyze intrusion events and enable rapid, coordinated responses.

The full PIDS capital budget includes scope to implement multiple technology solutions for selected coverage areas. To maximize our investment, the solution will be delivered in two phases. The scope of this initial phase includes the procurement and full implementation of only the radar, or similar technology, intrusion detection system. Once the coverage area for

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the first phase is finalized, a second phase for fencing intrusion detection will be brought forward for authorization. The authorization request for this initial phase includes no funding for the planned second phase.

Aviation Security, Information & Communication Technology (ICT), Aviation Maintenance (AVM), and Port Construction Services (PCS) will collaborate to complete this project. Total cost for this initial phase is estimated to be \$3,520,000. Ten-year license and maintenance fees are estimated at \$420,000. Recurring license and maintenance costs will be budgeted within the Aviation Maintenance department operating budget. The cost of both phases was included in the 2019-2023 capital budget and plan of finance in the amount of \$10,000,000.

JUSTIFICATION

Enhancements to our perimeter security have been identified as critical in ensuring public safety and improving operational efficiencies through automation. The new system will be part of a layered protection strategy that incorporates people, processes, and technology to decrease security risk and increase situational awareness. When integrated with existing security systems, it will provide a comprehensive picture to security and safety personnel and facilitate coordinated responses.

The authorization for the first phase will provide for selected areas of the airport perimeter:

- (1) Continuous monitoring for selected coverage areas.
- (2) Algorithm-based threat assessment with the ability to proactively distinguish between normal operations and a potential threat.
- (3) Robust alerting capabilities.
- (4) Directional tracking of potential intrusions enabling rapid responses to mitigate issues.

DETAILS

Scope of Work for First Phase

- (1) Procure and implement a radar or similar technology solution to enhance perimeter security for selected coverage areas.
- (2) Integrate with existing security systems to provide a comprehensive picture and operational efficiencies.

Schedule for First Phase

Commission Authorization	2019 Quarter 1
Product Selection	2019 Quarter 3
Implementation	2021 Quarter 3

Cost Breakdown

	This Request	Total Project
PIDS Hardware, Software, and Vendor Services	\$1,975,000	\$4,000,000

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Port of Seattle Labor	\$1,200,000	\$2,500,000
Hardware Installation	\$325,000	\$3,500,000
Training	\$20,000	\$20,000
Total	\$3,520,000	\$10,040,000

ALTERNATIVES AND IMPLICATIONS CONSIDERED FOR FIRST PHASE**Alternative 1 – Implement the Initial Phase of the Perimeter Intrusion Detection System Project**Cost Implications: Phase One Cost: \$3,520,000 + Operating Expense: \$42,000 per yearPros:

- (1) Provides continuous monitoring, real-time intrusion alarms, threat assessment, location and information for appropriate and coordinated security and operational responses for selected coverage areas.
- (2) Remote location, tracking, identification and assessment capability for multiple business units that aids quicker response and resource coordination.
- (3) Ability to respond rapidly and in a coordinated manner based on assessment of intrusion.
- (4) Additional data and robust reporting capabilities for post-incident assessment and analysis of intrusion types.

Cons:

- (1) Capital funds are not available for other efforts.
- (2) Requires an additional FTE to manage and maintain the system.
- (3) There is a risk that the product selected will require more construction than estimated although research supports the requested budget.

This is the recommended alternative.**Alternative 2 – Security Staff Augmentation**Cost Implications: \$400,000 per yearPros:

- (1) Utilizes current processes with 4.5 added FTE staff for additional patrols to increase awareness and identification.
- (2) Aviation Security has more personnel available to respond and assist during an event.

Cons:

- (1) No ability to provide continuous monitoring, real-time alerting, identification and coordinated response to intrusion(s).
- (2) Higher operating cost for 4.5 additional FTE and increased vehicle maintenance.
- (3) No automated reporting capabilities.
- (4) Increases ramp congestion and potential safety hazards due to extra vehicles in the area.

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- (5) Reduces, but does not eliminate, lag time between ground intrusion and detection.

This is not the recommended alternative.

Alternative 3 – Implement no new technology for perimeter intrusion detection

Cost Implications: \$0

Pros:

- (1) No additional capital or operating costs required

Cons:

- (1) No ability to provide continuous monitoring, real-time alerting, identification and coordinated response to intrusion(s)
- (2) Doesn't increase patrols nor add resources for event responses
- (3) No automated reporting capabilities

This is not the recommended alternative.

FINANCIAL IMPLICATIONS

<i>Cost Estimate/Authorization Summary</i>	Capital	Expense	Total
COST ESTIMATE			
Original estimate	\$10,000,000	\$20,000	\$10,020,000
AUTHORIZATION			
Previous authorizations	0	0	0
Current request for authorization	\$3,500,000	\$20,000	\$3,520,000
Total authorizations, including this request	\$3,500,000	\$20,000	\$3,520,000
Remaining amount to be authorized	\$6,500,000	\$20,000	\$6,520,000

Annual Budget Status and Source of Funds

This project CIP #C800844 was included in the 2019-2023 capital budget and plan of finance in the amount of \$10,000,000. The project will be delivered in two phases. This capital request for the initial phase is estimated at \$3,500,000. The full capital project will be submitted to the airlines for Majority-in-Interest approval. The funding source is the Airport Development Fund.

Financial Analysis and Summary

Project cost for analysis	\$10,000,000
Business Unit (BU)	Airfield Movement Area
Effect on business performance (NOI after depreciation)	NOI after depreciation will increase
IRR/NPV (if relevant)	N/A
CPE Impact	\$0.03 in 2022

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Future Revenues and Expenses (Total cost of ownership)

Estimated 10-year hardware and software maintenance costs of \$420,000 will be budgeted in the Aviation Maintenance operating budget beginning in 2021. One additional Aviation Maintenance staff will be required to support the new system.

ATTACHMENTS TO THIS REQUEST

None

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

None