



COMMISSION
AGENDA MEMORANDUM

Item No. 8d

ACTION ITEM

Date of Meeting November 9, 2021

DATE: September 9, 2021

TO: Stephen P. Metruck, Executive Director

FROM: Jason R. Coke, Police Sergeant

SUBJECT: **2022 Police Bomb Disposal Unit Robot Purchase (CIP #C801260)**

Amount of this request: \$350,000

Total estimated project cost: \$350,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to execute a contract in the estimated amount of \$350,000 to purchase a bomb disposal robot.

JUSTIFICATION

Safety and security are critical to ensure the continuity of operations at Seattle-Tacoma International Airport. As the 9th busiest airport in the United States, maintaining the ability to move passengers and cargo is critical. Ensuring the Port of Seattle Police Bomb Disposal Unit has the most advanced technology to mitigate threats helps ensure that continuity of operations is maintained.

The use of a bomb disposal robotics platform is critical to the safe and timely resolution of suspicious items. A robotics platform is required in inventory of all certified bomb disposal units. Ten years ago, the first wireless robotics platforms were introduced. Prior to wireless platforms, robots were tethered first by hard cable and eventually by fiber optic wire. Wireless platforms were superior, functioning without a tether hindering their mobility or limiting their distance.

The current robot platform deployed by our bomb disposal unit is the first generation of wireless platforms deployed. Our platform has faced challenges over the last year. We have had several calls in which the wireless technology has been disrupted or interfered with by stray radio-frequency interference (RFI). The stray RFI issues are significant at and around the airport due to the power and amount of RF produced. When the robot is hindered in operation by RFI, the technicians must switch to manual operations; manual techniques are more dangerous and time consuming. Additional time to clear the call and retrieve the robot increases the delay in a return to service for customers and stakeholders. The most recent event closed the Arrivals (lower

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drive) roadway at the airport for an extended period as robot operations were unsuccessful due to wireless communication issues.

Since the original wireless platforms were introduced ten years ago, advances in available technology have newer platforms superior in performance in several areas including a reduction in RFI challenges. The platform we are seeking authorization to purchase is built by the same manufacturer of our current platform and is designed to function in a variety of areas to include on aircraft. Robotics platforms are a significant piece of safety equipment in a bomb squad's render safe capabilities. Over a decade of wear and tear and the technological lag of our current platform has the robot performing at the end of its useful life.

Diversity in Contracting

The purchase of this bomb disposal robot is only available through the manufacturer. Diversity contracting is not feasible or available.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Deny the purchase of a new robotics platform.

Cost Implications: Continue to maintain and repair current platforms. Continue to see delays in the clearing of suspicious packages when the current platform has RF interference issues. Delays in returning to normal operations as manual techniques are used.

Pros:

- (1) No funding would be required.

Cons:

- (1) Continue to use a platform at the end of its useful life.
- (2) Current platform faces functional issues requiring more dangerous and time-consuming methods to be used.
- (3) Denial would only delay the need for a newer platform for a short time as the current platform continues to downgrade.

This is not the recommended alternative.

Alternative 2 – Attempt to maintain and modernize current platform

Cost Implications: Approximately \$130,000 in costs associated with updated mechanical systems over the next three years.

Pros:

- (1) Less than purchase of a new platform.
- (2) Mechanically update the current platform to function at a high level.

Cons:

- (1) No modernization of RF exists for the existing platform.

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- (2) No change in interference issues, the current platform would still face interference issues.
- (3) Continues to use antiquated wireless technology.

This is not the recommended alternative.

Alternative 3 – Purchase the new robotics platform from the same manufacturer.

Cost Implications: \$350,000 for the cost of the new platform.

Pros:

- (1) Decreased costs associated with maintaining an aging platform,
- (2) Increased performance from new platform, faster and safer resolution of suspicious item calls.
- (3) Faster return to normal operations following BDU robot deployment.
- (4) Allows for use of existing attachments and tools.
- (5) Minimal training necessary.

Cons:

- (1) Requires \$350,000 in funds.

This is the recommended alternative.

FINANCIAL IMPLICATIONS

\$350,000

<i>Cost Estimate/Authorization Summary</i>	Capital	Expense	Total
COST ESTIMATE			
Original estimate	\$350,000	\$0	\$350,000
Previous changes – net	0	0	0
Current change	0	0	0
Revised estimate	0	0	0
AUTHORIZATION			
Previous authorizations	0	0	0
Current request for authorization	350,000	0	350,000
Total authorizations, including this request	350,000	0	350,000
Remaining amount to be authorized	\$350,000	\$0	\$350,000

Annual Budget Status and Source of Funds

This was included in the 2022 Corporate Capital Project budget plan under CIP #C801260 in the amount of \$350,000.

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ATTACHMENTS TO THIS REQUEST

None

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

None