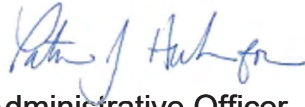


CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

Date: June 24, 2021

To: The Mayor
The City Council

From: Richard H. Llewellyn, Jr., City Administrative Officer



Subject: **INNOVATION FUND RECOMMENDATION – EARTHQUAKE EARLY WARNING NOTIFICATION FOR LOS ANGELES WORLD AIRPORTS**

RECOMMENDATIONS

That the Council, subject to the approval of the Mayor:

1. Establish and appropriate a new appropriation account entitled Los Angeles World Airports – Earthquake Early Warning Notification for Los Angeles World Airports in the amount of \$150,000 within the Innovation Fund No. 105/10 from the available cash balance of the Innovation Fund.
2. Transfer \$150,000 from the Innovation Fund No. 105/10, Account to be Established, Los Angeles World Airports – Earthquake Early Warning Notification for Los Angeles World Airports to Airport Revenue Fund No. 700/04.
3. Instruct Los Angeles World Airports to:
 - a. Separately track all encumbrances and expenditures of Innovation Fund monies so that unspent funds can be returned to the Innovation Fund at the end of the fiscal year;
 - b. Report to the Innovation and Performance Commission with an accounting of the funds, the lessons learned, and any obstacles faced; and,
 - c. Report to the Innovation and Performance Commission if, after the receipt of funds, the scope of the funded item differs from the scope approved for funding by the Mayor and the City Council.
4. Authorize the City Administrative Officer to make technical corrections as necessary to those transactions included in this report to implement Mayor and Council intentions.

SUMMARY

The City Administrative Officer herewith transmits the recommendation of the Innovation and Performance Commission (IPC) to approve funding in the amount of \$150,000 from the Innovation Fund (IF) for the Los Angeles World Airports (LAWA) – Earthquake Early Warning Notification for LAWA pilot. Please note, as with all IPC recommendations, this report presents the idea as submitted by the Department and approved by the IPC along with the necessary recommendations to implement the idea as presented. If the scope of the Innovation Fund item changes after the Department receives funding, the Department must return to the IPC to present the revised scope to the Commission to determine whether alternative recommendations are required.

LAWA intends to pilot an earthquake early warning notification (EEW) that will provide a single integrated public alerting system at Los Angeles International Airport (LAX) through the integration of existing technologies for a less expensive solution. EEW is the rapid detection and characterization of earthquakes and delivery of an alert so that protective actions can be taken. If implemented, LAWA indicates LAX would be the first major transportation facility in the United States to implement an EEW public alerting system. LAWA would also be the first major airport globally to implement EEW alerting, and the first solution that would test comprehensive public alerting. This pilot would include fire alarm annunciation, security screening checkpoint visual paging, selected staff alerts, and instructions on how to safely and effectively shut down fuel systems. LAWA will effectively test how to safely alert the public prior to a major earthquake as well as test the capabilities to shutdown fuel hydrant systems. Lastly, LAWA will develop an education program for the public and LAWA tenants and stakeholders.

The EEW system will receive alerts through the United States Geological Survey's (USGS) ShakeAlert system. The EEW will be dependent on the USGS system to operate. The EEW will monitor all messages that are posted through USGS and will issue automated alerts and shutdowns of systems. According to LAWA, the entire process takes just a few seconds once an earthquake starts. Alerts will be disseminated and prioritized, with LAWA's Emergency Management Division and the Executive Director determining the scenarios for three types of alerts: low, moderate, and high intensity shaking. The public will be made aware of the system through several methods, including:

- Initial press releases;
- Routine system tests;
- Terminal signage and public address system announcements as needed;
- Electronic messaging systems at security screening checkpoints, ticketing counter back wall displays, flight information displays, and gate back wall displays; and,
- Annual drills and press releases.

Specific programs will also incorporate outreach to those who are mobility, visually, hearing, and mentally impaired in accordance with the Americans with Disabilities Act (ADA). Each category of impairment will have specific training oriented to the alert messages.

According to LAWA, once the message is received from USGS, the alert is processed according to the shaking intensity and the EWW will send messages based upon the rules and thresholds established by LAWA Emergency Management and its stakeholders. Below is a proposed category of responses, which will be vetted by LAX stakeholders:

- **Low to moderate shaking intensity (4.0-5.5 magnitude earthquake)** - Alert sent to all electronic displays and voice over internet protocol (VOIP) telephone handsets to drop, cover, and hold on (DCHO). Fire alarm system would issue an alert.
- **Moderate to high intensity (5.5 to 6.5 magnitude earthquake)** - Alert sent to all electronic displays and VOIP handsets to DCHO. Fire alarm system would send out an alert to DCHO, along with intensity information.
- **High to Very High (6.5 to 8.0+ magnitude earthquake)** - Alert sent to all electronic displays and VOIP handsets to DCHO. Fire alarm system would send out an alert to DCHO, along with intensity information and estimated shaking duration. Automated infrastructure shutdowns will cut off selected utilities, open fire station doors, and perform similar emergency tasks. Message will be sent to the control tower to stop operations and divert aircraft to alternate airports.

Once the pilot stage has been completed, a comprehensive public education campaign would commence. The public education campaign would include:

- Development of a Public Information Outreach Campaign, including signage and media information;
- Development of ADA response messaging, communication to subgroups, and alerting methods;
- Press conference including a tour of the terminal earthquake response systems followed by a public demonstration of each response type;
- Tours of the solution for City of Los Angeles departments; and,
- Routine press releases and drills.

LAWA will work with the American Association of Airport Executives and the Federal Aviation Administration (FAA) to add EEW systems to airport design standards to allow federal funding for installation.

The Commission recommends funding of \$150,000 for the EEW for LAWA pilot. This amount will fund:

• One-Time Activation and Setup (Equipment and Informacast emergency mass notification system)	\$ 33,000
• Annual Subscription Rate and Long-Term Support	<u>117,000</u>
Total:	\$ 150,000

LAWA states that once the pilot is complete, maintenance costs will be covered through LAWA's existing software and hardware maintenance contracts or by an independent contractor. LAWA will procure any additional system components for expansion of the solution into additional terminals and other public areas.

FISCAL IMPACT STATEMENT

Approval of these recommendations will allocate \$150,000 of the remaining \$1,316,112 Innovation Fund 2021-22 available balance. The \$150,000 will be transferred to LAWA to begin implementation of the pilot project that has been approved by the Innovation and Performance Commission. In some cases, departments will incur ongoing costs.

FINANCIAL POLICIES STATEMENT

The recommendations of this report are in compliance with the City's Financial Policies as Innovation Fund monies are being utilized for an eligible project which will improve the quality, efficiency and effectiveness of City service through innovation, productivity, and performance measurement.

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