



**THE PORT
OF LOS ANGELES**
Executive Director's
Report to the

Board of Harbor Commissioners

DATE: NOVEMBER 18, 2015

FROM: PORT PILOTS

SUBJECT: RESOLUTION NO. _____ - APPROVAL OF AGREEMENT BETWEEN THE CITY OF LOS ANGELES HARBOR DEPARTMENT AND THE UNITED STATES DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE CENTER FOR OPERATIONAL OCEANOGRAPHIC PRODUCTS AND SERVICES FOR AIR GAP MEASUREMENT SYSTEM INSTALLATION, OPERATION AND MAINTENANCE

SUMMARY:

The Port Pilots Division recommends the Board of Harbor Commissioners approve the City of Los Angeles Harbor Department (Harbor Department) Memorandum of Agreement (MOA) with the United States Department of Commerce National Oceanic and Atmospheric Administration (NOAA) National Ocean Service Center for Operational Oceanographic Products and Services (CO-OPS) to install an air gap measurement system to the apex of the Vincent Thomas Bridge (Bridge). The proposed MOA between the Harbor Department and CO-OPS, which is based in Silver Spring, Maryland, provides for the installation, operation and maintenance of air gap sensor equipment and access to the collected data, in addition to the continued operation and maintenance of existing atmospheric sensors. The precise, real-time air gap data from the new system will add an additional measurement of safety for increasingly large vessels piloted under the Bridge. The terms of the agreement will be five years ending December 31, 2020 for a total amount of \$135,459 with each year's annual amount to be funded in advance annually by the Harbor Department, this is in addition to a current purchase order commitment of \$17,000 per year for the operation and maintenance (O&M) of existing atmospheric sensors by the Harbor Department.

RECOMMENDATION:

It is recommended that the Board of Harbor Commissioners (Board):

1. Find that the Director of Environmental Management has determined that the proposed action is exempt from the requirements of the California Environmental Quality Act (CEQA) under Article III Class 1(6) of the Los Angeles City CEQA Guidelines;

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2. Approve the Memorandum of Agreement between the City of Los Angeles Harbor Department and the United States Department of Commerce National Oceanic and Atmospheric Administration National Ocean Service Center for Operational Oceanographic Products and Services;
3. Authorize the Executive Director to execute and the Board Secretary to attest to the Agreement term of five years at an amount of \$135,459; and
4. Adopt Resolution No. _____.

DISCUSSION:

Background/Context – The continued efficiency and security of the supply chain at the Port of Los Angeles is dependent on the safe navigation of in-and-outbound vessels. It is anticipated that as alliances among shipping companies grow, so will the size of container vessels and their respective air drafts. With commercial ship heights continuing to increase, it is important to have a measurement device in place to prevent potential allisions with the Vincent Thomas Bridge (Bridge). While the published Bridge navigational clearance is 185 feet at mean high tide, the gap between the Bridge and the water surface can be impacted by bridge traffic loads; temperature related expansion and contraction, as well as tides at various times of the day. Port Pilots plan to use air gap data to navigate ships safely under the Bridge, especially in cases of low visibility and/or when shipments require increased attention to the Bridge's air gap.

Port Pilots currently use information from existing NOAA sensors that were installed for the collection and dissemination of a variety of oceanographic data at the Port of Los Angeles. In 2001, the Harbor Department, in partnership with the Southern California Marine Exchange and NOAA's National Ocean Service, installed a suite of oceanographic and environmental sensors as part of the nationwide Physical Oceanographic Real-Time System (PORTS). These sensors include an air acoustic water level sensor at the outer harbor, as well as wind speed/direction and barometric pressure and air temperature sensors at Berth 161, Cerritos Channel, and Pier 400. The Harbor Department maintains these sensors through purchase orders on an annual basis.

Air Gap Sensor Technology – The air gap measurement system is a set of sensors that accurately measures the clearance between the surface of the water and the underside of the highest point of a bridge. Air gap sensor technology is proprietary and only available through NOAA. It is proposed that CO-OPS will install and maintain microwave (primary) and laser (backup) air gap sensors onto the Bridge. Data will then be transmitted and collected by CO-OPS and made publicly available via the internet following Continuous Real-Time Monitoring System review.

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The installation of this type of equipment is beneficial to all Port of Los Angeles stakeholders. Air gap sensor equipment has already been successfully installed on the Gerald Desmond Bridge in Long Beach and other many major ports throughout the nation (Transmittal 1). NOAA has a similar agreement in place with the City of Long Beach. If installed, the provided data would complete the collection of atmospheric information available for the entire San Pedro Bay Ports Complex.

Memorandum of Agreement – The proposed MOA would formalize the maintenance terms of all existing NOAA sensors and provide terms for the installation and maintenance and operation of the new air gap measurement system.

Upon approval, NOAA will be able to expand its transmissions of PORTS data to include the collection and dissemination of air gap sensor readings at the Port of Los Angeles. The Harbor Department would be financially responsible for the installation, operation, and maintenance of the air gap measurement system.

CO-OPS will act as the project manager, provide engineering design of the air gap sensors' mounting hardware, and contract with a third party vendor for the installation, operation, and maintenance of the equipment, as needed. CO-OPS will also be responsible for obtaining permission from the State of California to install the equipment on their property (Vincent Thomas Bridge).

Additionally, the Harbor Department will commit to the continued O&M of existing PORTS related sensors in the Port of Los Angeles, which requires separate funding not included in the proposed MOA payment schedule.

All responsibilities under the MOA are subject to the availability of appropriated funds to CO-OPS or from the Harbor Department. The MOA may be amended or modified at any time with mutual written consent and may be canceled by either party after 120 days of written notice.

ENVIRONMENTAL ASSESSMENT:

The proposed action is approval of an MOA with CO-OPS for installation and maintenance of an air gap sensor on the Vincent Thomas Bridge to increase safety for large vessels piloting under the Bridge. As an activity involving the addition of a safety device for use in conjunction with an existing structure, the Director of Environmental Management has determined that the proposed action is exempt from the requirements of CEQA in accordance with Article III Class 1(6) of the Los Angeles City CEQA Guidelines.

FINANCIAL IMPACT:

The Harbor Department would be financially responsible for both the existing PORTS sensors and the new air gap measurement system. The existing PORTS sensors are

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currently maintained through a sole source purchase order at an average cost of \$10,000 per year. The terms of the current purchase order is for one year of O&M costs up to \$17,000 and expires on October 29, 2016, with an annual renewal option for two additional years. If the purchase order extensions are exercised, O&M cost increases would not exceed more than three percent of the total purchase order amount year over year.

The MOA provides the payment terms for the installation, operation and maintenance of the air gap measurement system only. While NOAA is able to provide the technology and platform to distribute air gap sensor data, it is not annually funded to install or maintain sensor equipment and therefore cannot enter into a contract with a third party to perform the necessary work. CO-OPS has similar financial restrictions and therefore requires the Harbor Department to fund the costs of the air gap measurement system in advance. The proposed MOA is for five years at an amount of \$139,459, pre-paid in five annual installments.

It is expected that funds under this agreement and a sole source purchase order will be expended as follows:

Task	Sensors	Commitment		Performance Period
		MOA	PO	
Installation	Air Gap	\$60,000		Upon Enactment
Period 1	Air Gap	\$14,500		Upon Enactment through December 31, 2016
O&M	Existing		\$17,000	October 28, 2015 through October 29, 2016
	Combined	\$91,500		Maximum during FY 15/16
Period 2	Air Gap	\$14,790		January 1, 2017 through December 31, 2017
O&M	Existing		\$17,000	October 28, 2016 through October 29, 2017, if renewed.
	Combined	\$31,790		Approximate FY 16/17 Costs
Period 3	Air Gap	\$15,086		January 1, 2018 through December 31, 2018
O&M	Existing		\$17,000	October 28, 2017 through October 29, 2018, if renewed.
	Combined	\$32,086		Approximate FY 17/18 Costs
Period 4	Air Gap	\$15,388		January 1, 2019 through December 31, 2019
O&M	Existing		\$17,000	TBD
	Combined	\$32,388		Approximate FY 18/19 Costs
Period 5	Air Gap	\$15,695		January 1, 2020 through December 31, 2020
O&M	Existing		\$17,000	TBD
	Combined	\$32,695		Approximate FY 19/20 Costs
	Subtotals	\$135,459	\$85,000	
	Total	\$220,459		

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With the signing of this MOA, CO-OPS will invoice the Harbor Department and be responsible for the installation and Period 1 costs. Upon funding from the Harbor Department, CO-OPS will be responsible for the installation, maintenance and operation of the air gap measurement system at the Port of Los Angeles. The first year's cost for installation, operation and maintenance of the air gap measurement system will be charged to the Port Police Division out of the Outside Services Account 54030, Center 0412, Program 000. All costs in subsequent fiscal years will be requested as part of the Port Pilots Division's annual budget request.

CITY ATTORNEY:

The City Attorney's Office has reviewed the Memorandum of Agreement and approves it as to form and legality.

TRANSMITTALS:

1. List of Air Gap Sensor Locations
2. Memorandum of Agreement with NOAA's CO-OPS

FIS Approval:  (initials)
CA Approval:  (initials)



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Chief Port Pilot



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APPROVED:



EUGENE D. SEROKA
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EDS/TEG/BC/RB:ez
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