UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service
Center for Operational Oceanographic Products and Services
Silver Spring, MD 20910

08/26/2024

Captain Michael Miller
Associated Branch Pilots - President
P.O. Box 8563
Metairie, LA 70011-8563

Dear Captain Miller,

Thank you for being an active partner with the National Oceanic and Atmospheric Administration (NOAA) in the Physical Oceanographic Real-Time System, or PORTS®, program. This letter documents the current installation and data dissemination parameters associated with the Crescent City Connection Bridge air gap system, included in the Lower Mississippi River PORTS®. It is important that these parameters are clearly understood by those using the air gap data, and to that end, we ask that you assist us in sharing the enclosed information broadly among the local maritime community.

Prior to installation of an air gap system and dissemination of the resulting real-time air gap data, NOAA, the local PORTS® partners, and other maritime stakeholders, including the bridge owners, work collaboratively to both determine placement of air gap equipment and agree on the designated point on the bridge that will serve as the "air gap reference point". The "air gap reference point" is a specific point on the bridge where the air gap reading is referenced to, indicating the distance between that point and the surface of the waterway below. It's extremely important for the community to understand that this "air gap reference point" on the bridge will differ from the bridge's established low steel value(s), as defined by the United States Coast Guard (USCG) and vary from the fixed vertical bridge clearance values published on the associated NOAA Nautical Chart(s).

It is NOAA's standard that the "air gap reference point" and air gap equipment be located within close proximity, which is determined on a case-by-case basis. The intent of this requirement is to ensure the real-time air gap measurements are not adversely affected by bridge deflection and/or vibration caused by environmental factors such as wind, temperature changes, and varying vehicular load. These sources of air gap measurement error normally increase with a greater horizontal distance between the air gap sensors and the "air gap reference point." The ideal setup is that air gap sensors are located directly above the desired "air gap reference point".

For all PORTS® air gap systems, NOAA measures very precisely the elevation offset between the air gap sensors and the specified "air gap reference point". That allows the air gap value reported on the PORTS® web pages to be highly accurate for the agreed-upon reference point. The "air gap reference point", the sensor location, and the offset parameters specific to the Crescent City Connection Bridge air gap system are detailed below.

It is important to note that there may be other non-structural components – such as navigation lights, radar beacons/RACON, etc. – attached to the bridge that extend below the point designated as the "air gap reference point". Further, non-structural or temporary components (e.g. scaffolding or tarping) may be newly installed, moved, or adjusted after the time of sensor installation and air gap reference point designation. It is a collective responsibility of the bridge owner and funding partner (if different from the bridge owner) to be aware of and communicate changes of such non-structural components, so that all users are aware and any necessary changes to the air gap measurement can be discussed, agreed to, and implemented on the Lower Mississippi River PORTS® webpages by NOAA.

NOAA understands that real-time air gap measurements at the Crescent City Connection Bridge are important for marine navigation decisions. In the case of a data outage, NOAA or the partner and the partner's maintenance contractor will first work to resolve the issue remotely by calling into the air gap system. If remote intervention and troubleshooting is not successful, a site visit to the air gap system is scheduled as soon as feasible. Typically, this requires close coordination with the bridge owner/manager to arrange access and any necessary lane closures.

Crescent City Connection Bridge

This PORTS® air gap system is located on the downriver span of the Crescent City Connection Bridge, which links New Orleans, LA and Gretna, LA. The air gap system is installed on the south facing side of the downriver span of the bridge, 4.25 feet to the west of the downriver span's green center channel navigation light. See Image 1 for a photograph of the air gap system installation on the Crescent City Connection Bridge. See Images 2 and 3 for the location of the air gap system and associated "air gap reference point".

In 2023 and 2024, NOAA worked with our Lower Mississippi River PORTS® program partner, the Associated Branch Pilots, other river pilot organizations and the local maritime community to determine an update to the "air gap reference point". Effective the date of this letter being issued, **the air gap measurement for the Crescent City Connection Bridge, displayed on the NOAA Lower Mississippi River PORTS® website** (https://tidesandcurrents.noaa.gov/ports/index.shtml?port=lm) **represents the distance between the surface of the Mississippi River and the bottom of the green center channel navigation light, on the south facing side of the bridge's downriver span.** NOAA determined an offset value to the bottom of the navigation light by taking vertical steel tape measurements. The offset was determined to be 1.993 meters. See Image 4 for a schematic of the air gap sensor elevation offset for at the Crescent City Connection Bridge.

Please feel free to reach out to the NOAA PORTS® team at PORTS_program@noaa.gov with questions about the present state of the Crescent City Connection Bridge air gap system included in the Lower Mississippi River PORTS®, or if adjustments to the data dissemination parameters will better suit the needs of the pilots and local maritime community.

Sincerely,

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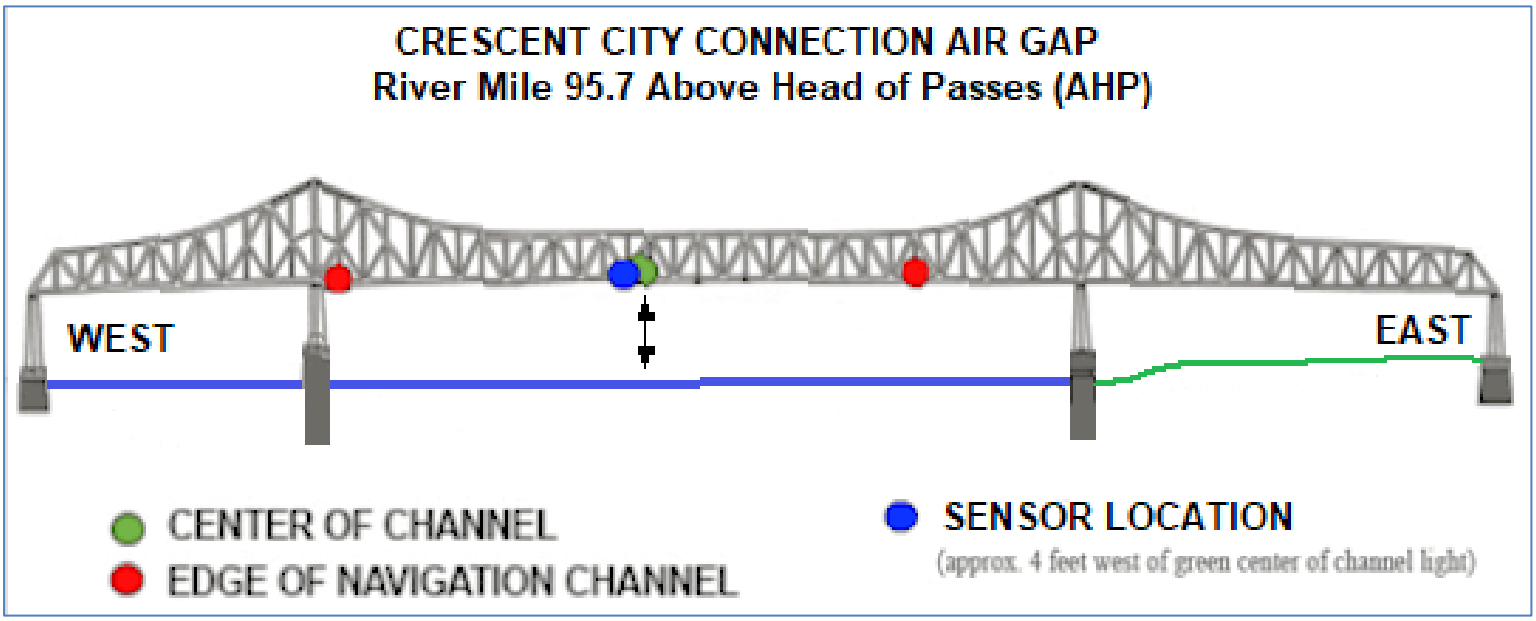
Dr. Marian Westley, Director
NOAA Center for Operational Oceanographic Products and Services

cc: Louisiana Maritime Association
Greater New Orleans Port Safety Council
Mr. Barry Keeling, LADOTD
Mr. Chris Collins, LADOTD
Mr. Sean Duffy, Big River Coalition
Associated Branch Pilots Dispatch
Captain Michael Bopp, Crescent Pilots
Crescent City Pilot Dispatch
Captain Toby Wattigney, NOBRA Pilots
NOBRA Pilot Dispatch
Captain Hank Webster, Federal Pilots
USCG New Orleans Command
USCG New Orleans Vessel Traffic Services
Mr. Doug Blakemore, USCG -8th District Bridges
NOAA PORTS® Team
Mr. Tim Osborn, NOAA OCS Navigation Manager
Ms. Grace Gray, NOAA CO-OPS Field Team Lead — Gulf Coast
NOAA CO-OPS Field Team -Gulf Coast

Images 1. Air Gap system Installation on the Crescent City Connection Bridge.



Images 2 and 3. Location of the Air Gap system and "air gap reference point" on the Crescent City Connection Bridge.



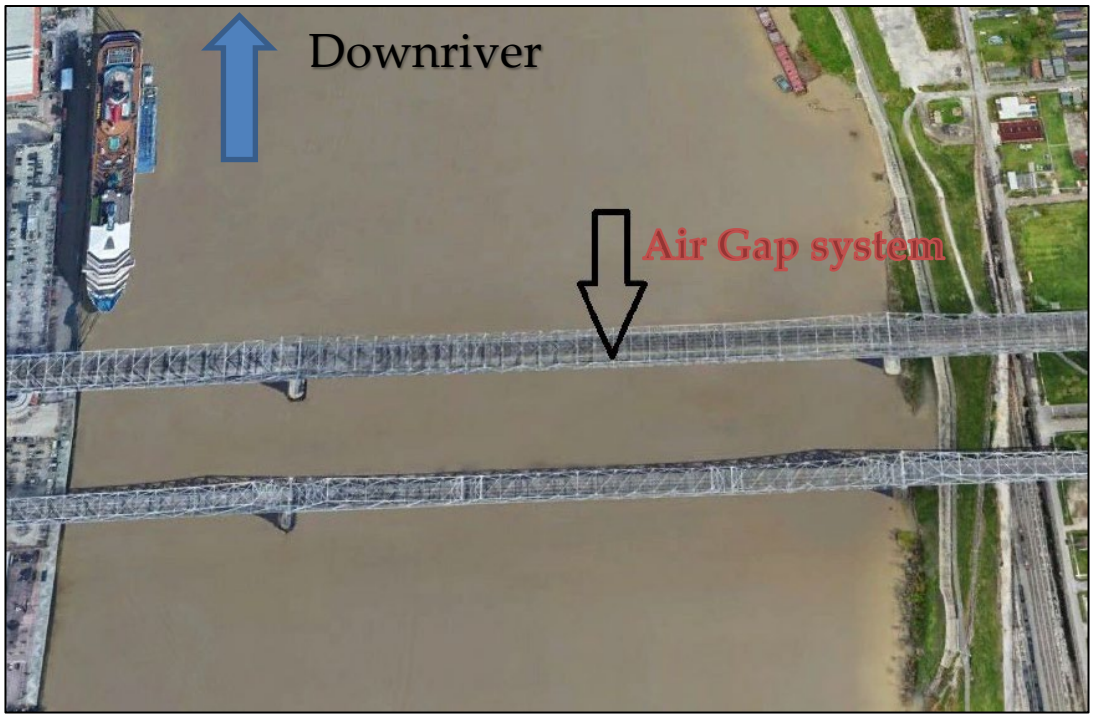


Image 4. Schematic of the Air Gap Sensor Elevation Offset at the Crescent City Connection Bridge.

