Continued Airworthiness Notification to the International Community

To: Civil Aviation Authorities Date: June 22, 2018

From: Federal Aviation Administration
Aircraft Certification
System Oversight Division, AIR-800
2200 South 216th Street
Des Moines, WA 98198

Subject: This message is to provide you with an update of the FAA's activities related to the potential for all six flight deck displays blanking on The Boeing Company Model 747-8/8F airplanes with a certain Airport Map Database (AMDB) installed.

Situation description: On June 8, 2018, we advised you of a recent Jeppesen AMDB release that included content that could cause all six flightcrew displays to blank on the 747-8/8F airplane. We indicated that the FAA was considering airworthiness action. Since then, Boeing worked with operators to ensure that the affected AMDB is not installed on any in-service Model 747-8/8F airplanes, and that the AMDB will be updated for airplanes not currently in service. Therefore, we are no longer considering airworthiness action to require changing the AMDB. We will continue to work with Boeing to assess and resolve identified vulnerabilities of the Model 747-8/8F airplane systems.

Aircraft/engine make, model, and series: Boeing Model 747-8/8F airplanes.

U.S.-registered fleet: approximately 19 airplanes; **Worldwide fleet:** approximately 127 airplanes

Operators: There are 22 operators worldwide. The largest fleets known to have Jeppesen AMDB installed include Korean Air, Atlas Air Inc., Air China, and UPS.

Ongoing activities: We first learned of this issue when we received a report where an airline experienced all six displays blanking out on a Model 747-8/8F airplane while on-ground. This occurred after a route with Sydney Airport (YSSY), entered as the destination airport in the FMC, was activated and executed. After further investigation, Boeing determined that there is a data structure in the affected Jeppesen AMDB which the EFIS/EICAS Interface Unit (EIU) has difficulty processing and, as a result, can cause display blanking. Jeppesen has confirmed that this data structure has been found to be present ONLY in the Sydney Airport (YSSY) of the affected Jeppesen AMDB release (24 May 2018 - 20 June 2018). This issue could manifest itself whenever YSSY was entered as an origin or destination, and the flight plan was activated and executed. In flight, this issue could have occurred by execution of a diversion with YSSY as the selected diversion airport; in this case, additional flight deck effects could have included an autothrottle disconnect and an autopilot mode fail.

On June 8, 2018, Boeing released Alert Service Bulletin (SB) 747-31A2536, which provided instructions to determine which AMDB is installed, and to make changes if necessary. On June 18, 2018, Boeing released SB 747-31A2536 Revision 1 with improved instructions. Accomplishment of either SB is effective in ensuring that the affected Jeppesen AMDB release (24 May 2018 - 20 June 2018) is not installed. Boeing has coordinated with Model 747-8/8F operators to track accomplishment of the SBs. We now know that the AMDB has been updated on all in-service Model 747-8/8F airplanes and will be updated on airplanes not currently in-service. The AMDB is updated regularly, so the affected AMDB would never be installed in the future.

We continue to coordinate with Boeing to assess the 747-8/8F airplane systems and to identify and develop any needed changes to address vulnerabilities in the systems.

For additional questions regarding this safety issue, please contact Ross Landes, AIR-780, at (206) 231-3500.

Next update, if any: N/A

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