

NARRATIVE STATEMENT

This petition is in reference to the Experimental License Granted on May 30, 2019 with the expiration date on October 01, 2020, for the purpose of flight testing in the CONUS and US territorial waters, the Gulf of Mexico, Atlantic Ocean and the Caribbean Sea. Thales shall use its new Advanced Connectivity Terminal, Ka-band (ACT-A) using the ThinKom Ka2517 antenna, for this experiment. The objective of flight testing is to test the performance of the Thales' turnkey In-Flight connectivity solutions by collecting real-time information. Post processing of the gathered information shall be used to enhance the system performance for each key component and the health index of the overall system.

By this modification petition, and pursuant to Section 5.67(a) of the Federal Communications Commission ("FCC") Rules, 47 C.F.R §§ 5.67(a)¹, Thales Avionics ("Thales") respectfully seeks limited modification of the experimental authority granted by the FCC under call sign WJ2XSO, to "add" the Thor-7 space station (NORAD ID: 40613) at orbital location 0.65° W.L., which is not in the Commission's Permitted List in conventional Ka-Band² frequencies. For your consideration, THOR 7 does not have any beam coverage or service areas in the continental USA and US Territories. So therefore, USA Permitted List Operators' space station AMC-16) shall be subjected to handing-off in the transatlantic region to provide continuous coverage without any disruption of connectivity.

- Existing and Approved Point of Communications in the license grant: Echostar XVII (Jupiter-1) (S2753), Jupiter-2 (S2968), AMC-15 (S2180), AMC-16 (S2181) and O3b (S2935)
- Proposed Point of Communications: Echostar XVII (Jupiter-1) (S2753), Jupiter-2 (S2968), AMC-15 (S2180), AMC-16 (S2181), O3b (S2935) and *Thor -7 space station (NORAD ID: 40613)*

Thor-7 is a geostationary space station owned by Norway's Telenor Satellite Broadcasting and carries Ku-band and Ka-band telecom payloads to broadcast television across Central and Eastern Europe and provide broadband connectivity to Telenor's clients the maritime, energy and aeronautical sectors. The spacecraft's 25 Ka-band spot beams offer customers uplink speeds between 2 megabits and 6 megabits per second, supporting applications such as Internet connectivity, remote conferencing, network access, and video streaming. Thor-7 also relays

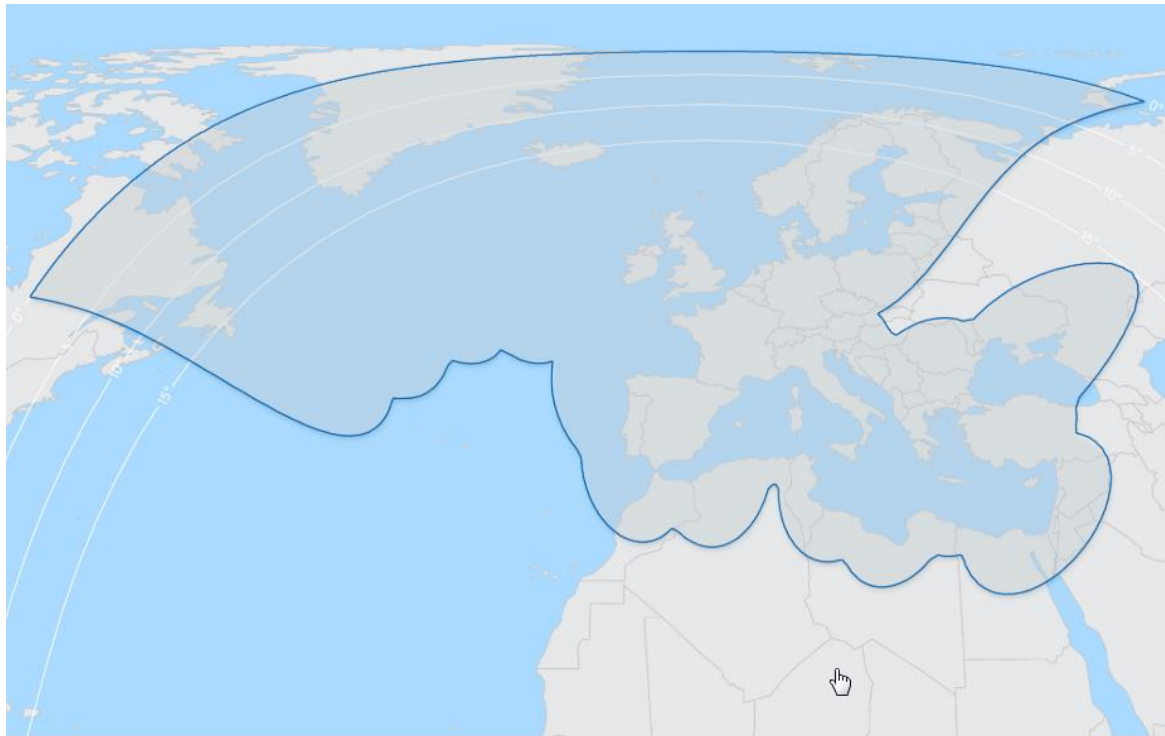
¹ https://www.ecfr.gov/cgi-bin/text-idx?SID=300ead9bfc733c5dab70d8c70450a550&mc=true&node=pt47.1.5&rgn=div5#se47.1.5_167

² Ka band 29.5 – 30.0 GHz (uplink), and 19.7 – 20.2 GHz (downlink)

meteorological data from Antarctic stations. Thor-7's final operating post is 22,300 miles (35,888 km) above Earth in geostationary along the equatorial plane.

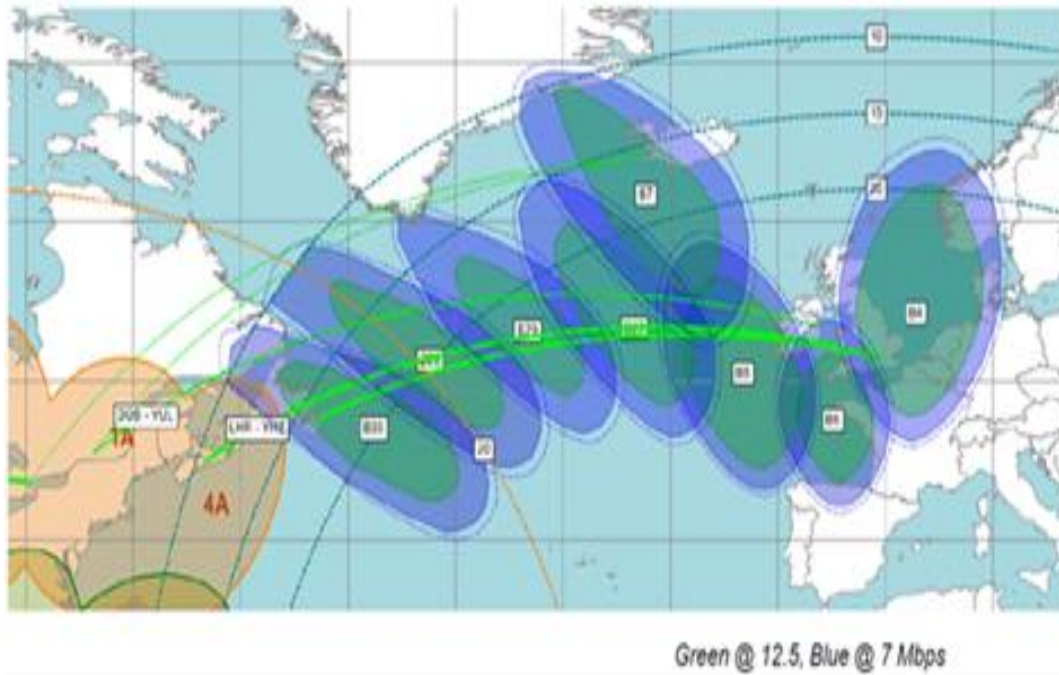
Thales' ESAA shall operate on Ka-band capacity on the Telenor (Thor-7) space station to allow provision of in-flight connectivity (IFC) services on commercial airliners traversing intercontinental flight routes in the North Atlantic Ocean. These flight routes are mainly between destinations in North America and the United Kingdom, Ireland, and several other European nations.

Thor-7 Coverage footprint below:



For clarification, Thales' has also applied to update our License with Canada because THOR-7 is approved on the Canada Permitted Space Station list since the beam coverage and service area extends to some Canadian territories. Over blue water (THOR-7: Green and Blue beams on map below):

AMC 16 beam 4A hands-off to Thor – 7 beam 30:



Stop Buzzer

The 24/7 stop buzzer contacts for this testing are:

Martin Matura (phone 321-292-0878) or Thales Network Operations Center (phone 407-812-2538; email MOC@us.thalesgroup.com)