

Thales Avionics, Inc.
Request for Testing the
Thales Advanced Connectivity Terminal, Ka-band (ACT-A) ESAA
Over International Waters

Applicant Description

Thales Avionics, Inc. with its InFlyt Experience operations in Melbourne and Orlando, FL and Irvine, CA is a global leader in providing leading-edge, connected inflight entertainment systems and services, including high-speed Internet connectivity, to commercial airlines worldwide. Thales is currently developing and testing a new Advanced Connectivity Terminal, Ka-band (ACT-A) using the ThinKom Ka2517 antenna, that is a key component of Thales's end-to-end inflight connectivity (IFC) service offerings to commercial airlines. Thales's IFC service using the ACT-A will enable airlines to meet the increasing demands of passengers' inflight connectivity needs and provide access to critical, real-time inflight data to improve airline operational efficiencies.

Reasons For Request

On October 5, 2018 OET granted Thales Avionics a 2-year authorization for ACT-A flight testing in CONUS and US territorial waters.¹

The scope of Thales's ACT-A flight testing has increased in terms of the geographical areas in which the ESAA's performance needs to be evaluated. In addition to the currently authorized CONUS and US territorial waters, Thales intends to test the ACT-A in international waters in the Gulf of Mexico, and in international waters in the Atlantic Ocean in the area of the Caribbean islands and Puerto Rico, as shown in the graphic below:

¹ See Call Sign WJ2XSO, File No. 0703-EX-CN-2018, granted October 5, 2018.



The ACT-A will not operate in the airspace or territorial waters of foreign countries.

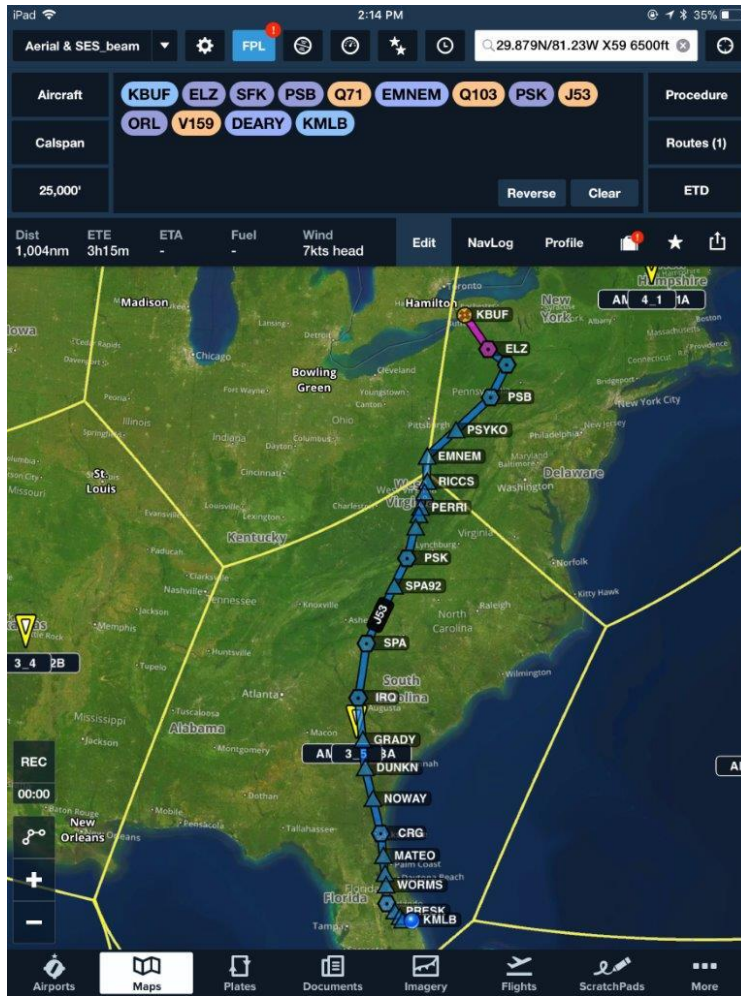
As shown in the FCC Form 442 there are no changes to the points of communication, spectrum, emission designators, or power levels specified in Thales's current experimental grant.

Per OET instructions to Thales in a September 18, 2018 meeting to discuss testing in international waters, certification letters from satellite operators SES (AMC-15 and AMC-16) and Hughes (Jupiter-1 and Jupiter-2) are being submitted as Exhibits to this request.

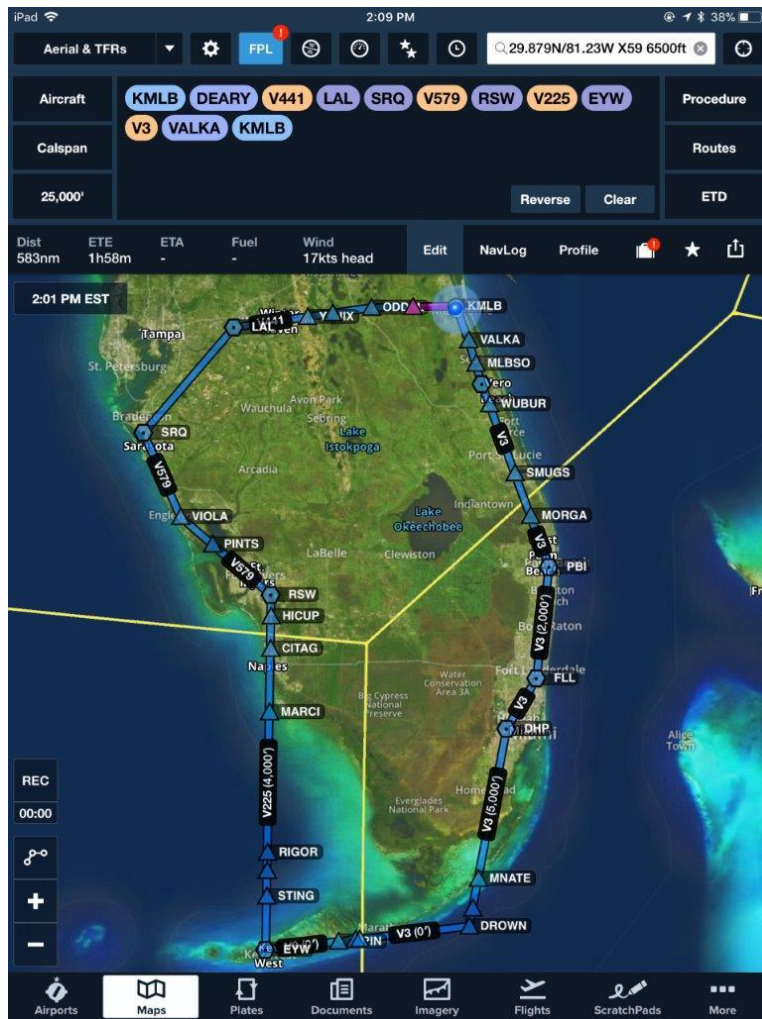
Grant of the requested ability to test over international waters will allow Thales to improve and expand its overall IFC service offerings to its airline customers by improving end-user experience with higher throughput rates, and allow Thales to offer services to airlines with trans-equatorial flight routes, where high skew angle conditions prevent two-axis, flat panel ESAA operations.

New Flight Test Routes

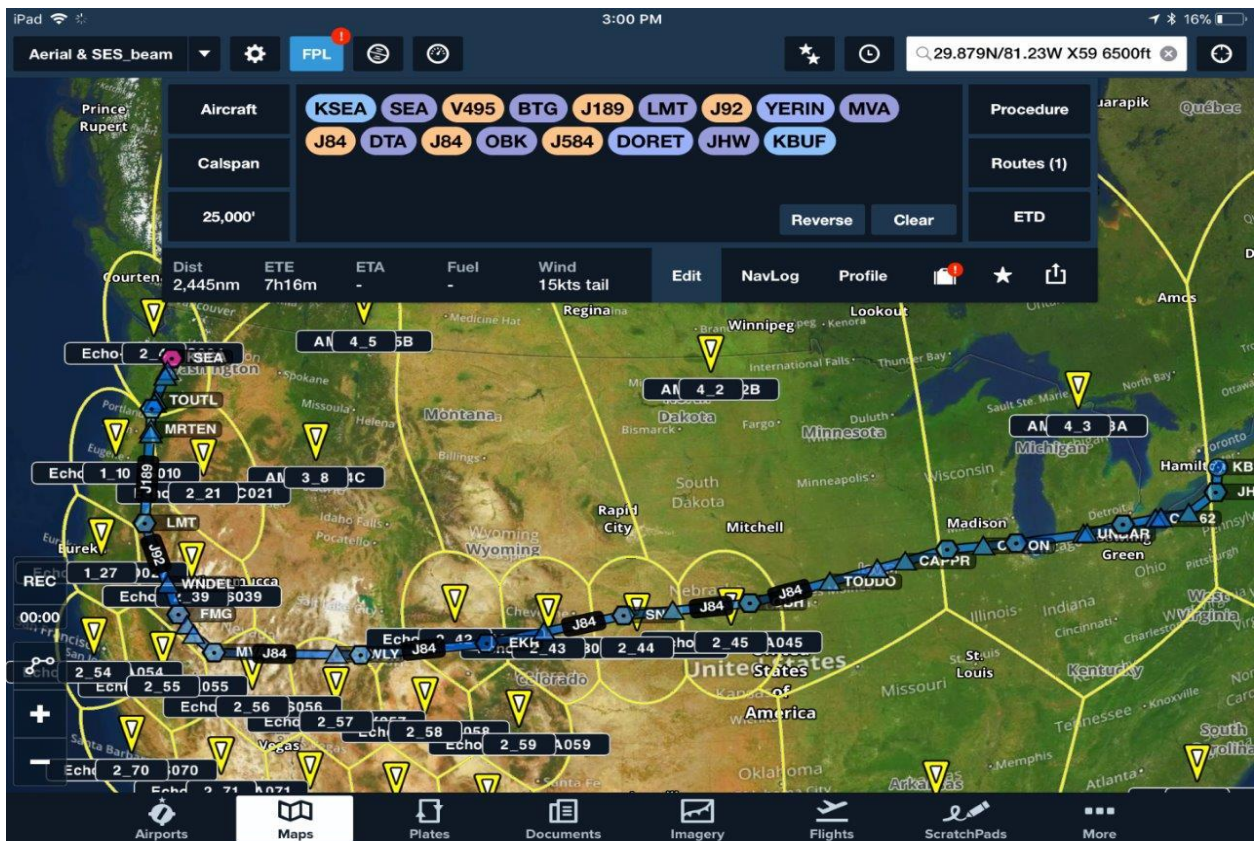
Flight tests will be conducted with the ACT-A installed on a leased test aircraft (Gulfstream G3). The expected flight routes, including two new routes over international waters, are shown below:



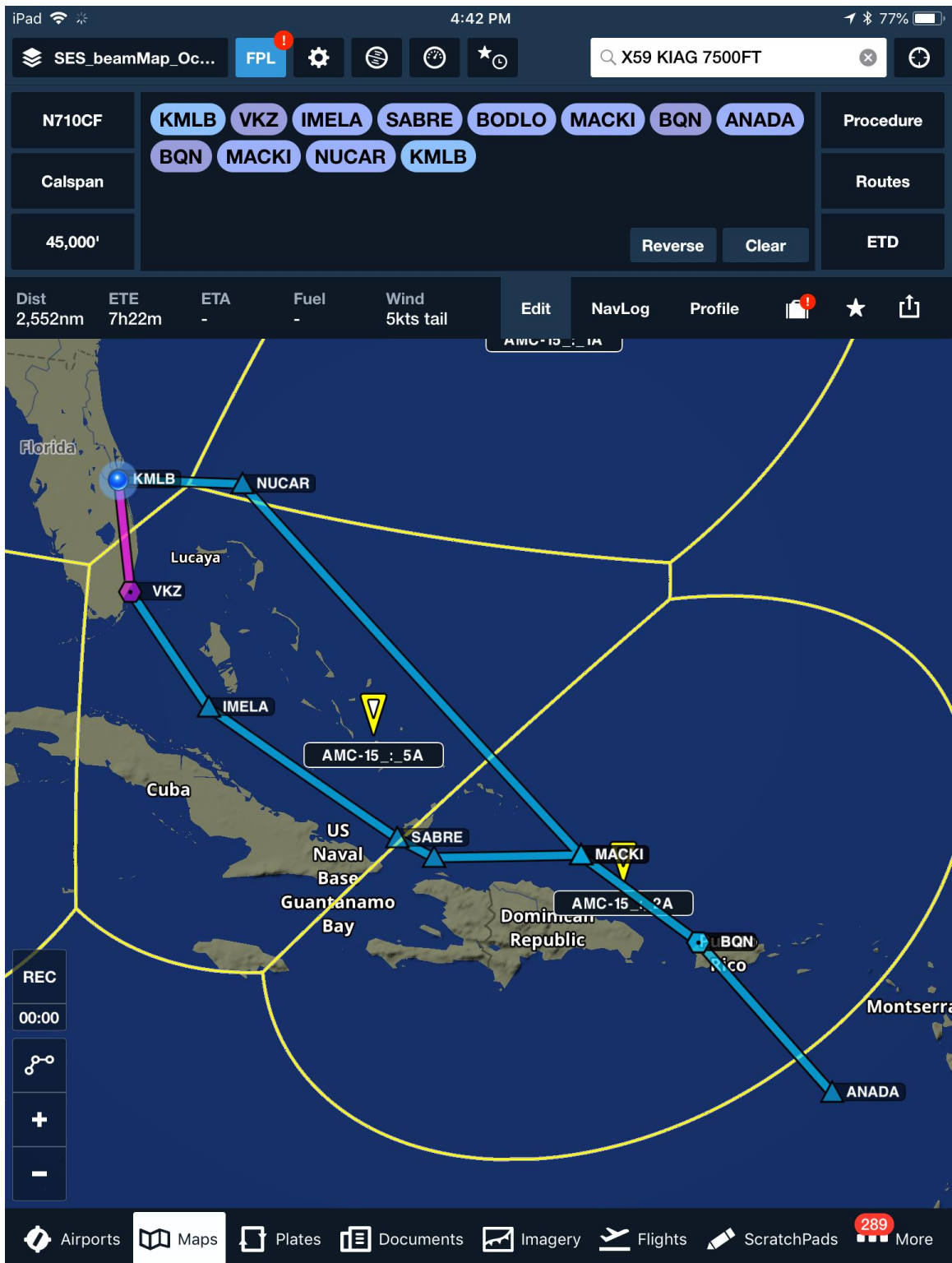
Buffalo, NY to Melbourne, FL



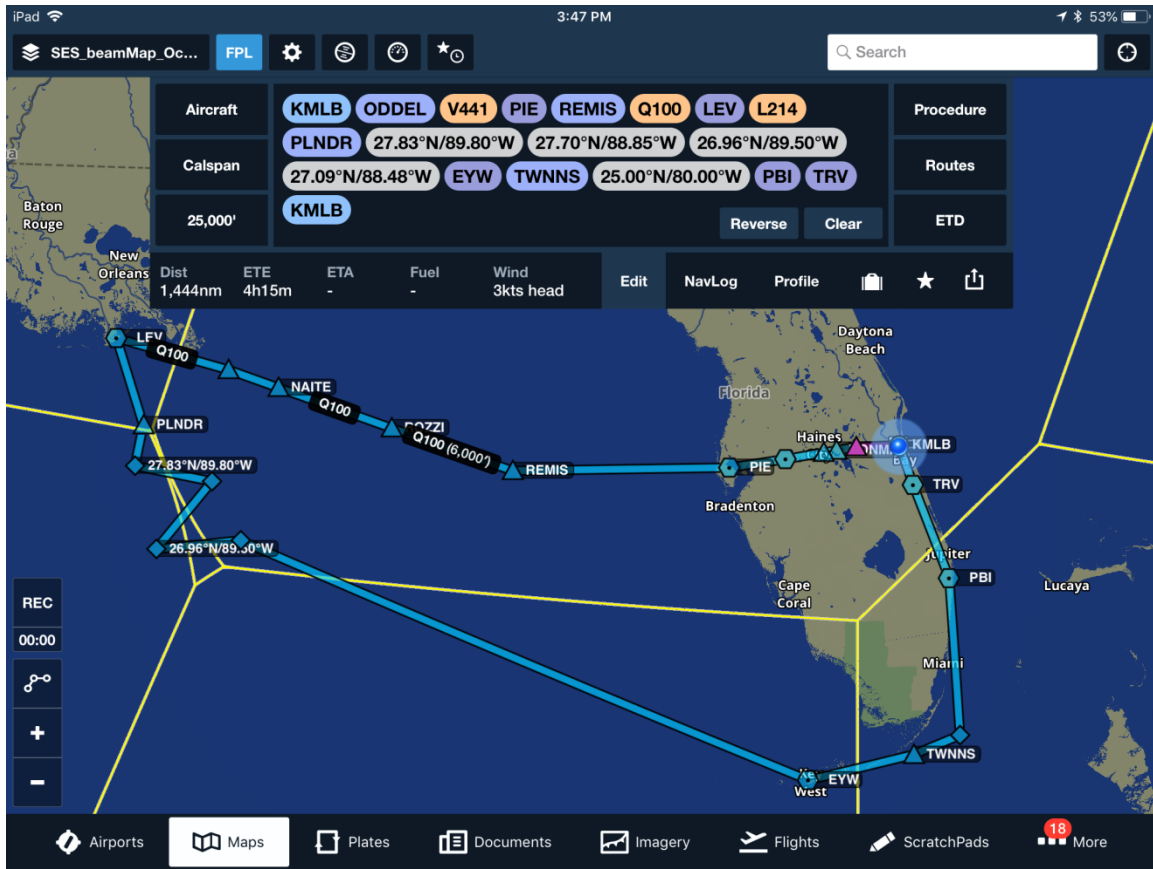
Regional Florida



Seattle, WA to Buffalo, NY



Melbourne, FL to Caribbean Region (new)



Melbourne, FL to Gulf of Mexico (new)

Stop Buzzer

The stop buzzer contacts for this testing are:

Martin Matura
Thales Avionics
321-292-0878

or

Thales NOC
949-754-6985