



September 13, 2018

for the reasons set forth
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BY HAND DELIVERY

GRANTED

STAMP & RETURN
R. Walker - 12

Received-FCC

SEP 13 2018

Roger Noel
Chief, Mobility Division
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th St SW
Washington, DC 20554

Re: **Thrane & Thrane A/S Trading as Cobham SATCOM Request for Waiver of Part 87 Rules to Allow Equipment Authorization of an Aeronautical Mobile Satellite Service Transceiver and Satellite Data Unit (AVIATOR 700D)**

Dear Mr. Noel:

Pursuant to Section 1.925 of the Commission's Rules, Thrane & Thrane A/S Trading as Cobham SATCOM ("Thrane & Thrane" or "Cobham"), by its attorney, hereby requests waiver of Sections 87.131, 87.137, 87.139(i)(1) note 2, 87.139(i)(3), and 87.141(j) of the Commission's Rules to permit certification of its next-generation ROJ-AVIATOR 700 device, which contains (a) an aeronautical-mobile satellite service ("AMSS") transceiver, the 5040A Satellite BGAN Unit ("5040A"); (b) a satellite data unit, the 5035A ("5035A"); and (c) a 5014A High Power Amplifier. The 5040A will support the Inmarsat SwiftBroadband aircraft communications service, and the 5035A supports Inmarsat Classic Aero. Under Section 1.925, the FCC may grant waiver if "[t]he underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the waiver would be in the public interest or, [i]n view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative."¹

The FCC has granted similar waivers of the Part 87 rules to EMS, Honeywell International, Inc. and Rockwell Collins, Inc. to permit authorization of similar equipment,² finding "waiver would be in the public interest" because "current Part 87 rules do not allow for the wider bandwidth, higher transmission speeds and more efficient modulation techniques of newer AMSS

¹ 47 C.F.R. § 1.925(b)(3).

² See Letter dated April 9, 2010, from Bruce A. Olcott to James Shaffer, Mobility Division, Wireless Telecommunications Bureau (Stamp Grant Apr. 29, 2010) ("EMS Stamp Grant"); Rockwell Collins, Inc. equipment authorization for the HST-21108 and HST-2120B transceivers, FCC ID AJK8222232 and AJK8222234 (2008); Honeywell International, Inc. equipment authorization for the HD-128 transceiver, FCC ID GB8HD-128 (2007).

systems.”³ Grant here would also serve the public interest by allowing the AVIATOR 700 to provide high-speed data and voice capabilities on aircraft.

Description of the Equipment

The 5040A, part of the AVIATOR 700 system, supports Inmarsat SwiftBroadband signals using BPSK, QPSK and 16QAM. The 5035A generates the Classic Aero signals using BPSK, QPSK and 16QAM. The 5014A High Power Amplifier combines and amplifies the 5040A signals for transmission.

The AVIATOR 700 system provides five baseband communication channels capable of supporting two simultaneous full-duplex circuit mode voice connections and one channel packet-mode data. In addition, the system provides one channel of Swift64 and one channel of SwiftBroadband functionality. The AVIATOR 700 System functions in the 1525-1559 MHz receive band and 1626.5-1660.5 MHz transmit band. Additionally, the transceiver meets the applicable requirement of RTCA/DO-210D “Minimum Operational Performance Standard for Geosynchronous Orbit Aeronautical Mobile Satellite Services (AMSS) Avionics” as well as ARINC Characteristics 741 and/or 781.

The 5040A transceiver will meet the technical requirement of Part 87 AMSS rules with respect to output power, spurious emissions, intermodulation and frequency stability. As the FCC has acknowledged, Inmarsat’s SwiftBroadband service “offers higher data rates by utilizing more efficient modulation techniques.”⁴ Grant of the instant waiver request would serve the public interest because the Part 87 rules have not yet been updated to reflect the emission types and bandwidths of which this equipment is capable.

A more detailed description of the equipment and the specific rules for which waiver is requested is attached under the company’s letterhead. A copy of FCC Form 159 showing payment of the \$210 waiver fee is enclosed.

³ Request of EMS Technologies Canada, Ltd. for Waiver of Part 87 Emission Mask to Allow Certification and Use of Aeronautical Mobile Satellite Service Transceiver, 26 FCC Rcd 8824 (WTB 2011).

⁴ EMS Stamp Grant, at 2.

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Please contact me with any questions.

Respectfully,

/s/ *David E. Hilliard*

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