

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

Gogo LLC (“Gogo”), which holds a license to operate an earth station aboard aircraft (“ESAA”) network,¹ hereby requests special temporary authority (“STA”) for a period of 60 days commencing no later than July 6, 2016, to permit up to 200 ESAA terminals² to communicate with the U.S.-licensed Intelsat 20 satellite located at 68.5° E.L. Grant of the requested STA will serve the public interest by allowing Gogo to respond to customer demand and optimize its coverage in the Middle East. Gogo is preparing an application to modify its ESAA license to add Intelsat 20 and other satellites as authorized points of communications, and seeks STA pending submission of and action on that modification application.

Background: Gogo is currently authorized to operate two types of Ku-band terminals with specified satellites for ESAA service in U.S. airspace, foreign airspace, and the airspace over international waters. Gogo’s license was issued based on its demonstration that its proposed network would enhance competition in the provision of in-flight broadband service to air travelers and airline crew members. Gogo also showed that its planned operations were fully consistent with technical standards designed to ensure protection of other authorized communications networks. In order to enhance and expand its ESAA operations, Gogo is preparing an application to modify the Gogo ESAA License to add new satellites as points of communication for the Gogo network.

STA Request: Gogo seeks STA to commence communications with Intelsat 20 in the near term while it is completing preparation of the upcoming modification application. Because Intelsat 20 is U.S. licensed, full technical data regarding the satellite is already on file with the Commission,³ and Gogo incorporates that information by reference herein. Gogo is also attaching a letter confirming that its proposed ESAA operations are consistent with Intelsat’s coordination agreements with operators of the satellites within six degrees on either side of Intelsat 20. The technical parameters of the proposed operations with Intelsat 20 provided in the following table:

¹ See *Gogo LLC*, Call Sign E120106, File No. SES-MFS-20140801-00625, granted Dec. 22, 2014 (the “Gogo ESAA License”).

² Gogo is licensed for two ESAA terminals, the 0.24 meter AeroSat model HR6400 and the 0.74 meter ThinKom model 2Ku, and requests authority for both models, up to a combined total of 200 terminals.

³ *Intelsat License LLC*, Call Sign S2847, File No. SAT-LOA-20111024-00208, grant-stamped July 26, 2012 (“Intelsat 20 License”).

Antenna	Maximum EIRP Density Per Carrier (dBW/4 kHz)	EIRP (dBW)	Emission Designator
AES 1	16.29	43.53	6M00G7W
AES 1	16.29	40.52	3M00G7W
AES 1	16.29	38.76	2M00G7W
AES 2	20.53	47.77	6M00G7W
AES 2	20.53	48.49	3M00G7W
AES 2	20.53	46.73	2M00G7W

Consistent with the Commission’s orders in the ESAA decisions⁴ and with the terms of the Intelsat 20 License, Gogo seeks to communicate with Intelsat 20 on a primary basis in conventional Ku-band uplink spectrum, 14-14.5 GHz; on an unprotected basis in the 10.95-11.2 GHz and 11.45-11.7 GHz downlink spectrum; and on a nonconforming basis in the 12.5-12.75 GHz downlink spectrum. Communications with the satellite will be supported by an Intelsat teleport in Fuchsstadt, Germany.

Gogo proposes to use Intelsat 20 for coverage of the Middle East. Gogo requires access to this capacity to ensure that it has sufficient bandwidth to meet near-term customer demand for in-flight connectivity. Gogo does not propose to use the satellite in U.S. airspace.

Gogo emphasizes that the scope of this STA request is limited. Gogo is only seeking authority to add Intelsat 20 as an authorized point of communication for a limited number of ESAA terminals. Gogo is otherwise prepared to operate consistently with the terms and conditions set forth in the existing Gogo ESAA License. In addition, Gogo is willing to operate pursuant to the STA on an unprotected, non-harmful interference basis.

Waiver of the Table of Allocations: Gogo requests waiver of the Table of Allocations in Section 2.106 of the Commission’s rules to permit use of downlink spectrum in the 12.5-12.75 GHz band for ESAA operations. Grant of this waiver is consistent with Commission policy:

The Commission may waive a rule for good cause shown. Waiver is appropriate if special circumstances warrant a deviation from the general rule and such deviation would better serve the public interest than would strict adherence

⁴ *Revisions to Parts 2 and 25 of the Commission’s Rules to Govern the Use of Earth Stations Aboard Aircraft Communicating with Fixed-Satellite Service Geostationary-Orbit Space Stations Operating in the 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz and 14-14.5 GHz Frequency Bands*, Notice of Proposed Rulemaking and Report and Order, IB Docket Nos. 12-376 & 05-20, 27 FCC Rcd 16510 (2012) (“ESAA Order”); Second Report and Order and Order on Reconsideration, IB Docket No. 12-376, 29 FCC Rcd 4226 (2014) (“ESAA Second Order,” and with the ESAA Order, the “ESAA Decisions”).

to the general rule. Generally, the Commission may grant a waiver of its rules in a particular case if the relief requested would not undermine the policy objective of the rule in question and would otherwise serve the public interest.⁵

Prior to adoption of the ESAA decisions, the Commission granted waivers for downlink operations in the 11.7-12.2 GHz conventional Ku-band downlink spectrum “based upon either a showing that the proposed AMSS downlink transmissions will not exceed the 10 dBW/4 kHz limit for routine processing in Section 25.134(g)(2) of the Commission’s rules or proof that adjacent satellite operators have consented to the operations.”⁶ ESAA operators were also permitted to use extended Ku-band frequencies for ESAA downlinks pursuant to the same rationale.⁷ The Commission has recognized that “terminals on U.S.-registered aircraft may need to access foreign satellites while traveling outside of the United States (*e.g.*, over international waters), and therefore may need to downlink in the extended Ku-band in certain circumstances.”⁸

The Commission’s ESAA Decisions modified the Table of Allocations to permit ESAA operations in the conventional Ku-band, as well as in the 10.95-11.2 GHz and 11.45-11.7 GHz segments of the extended Ku-band. The Commission acknowledged that ESAA operators may also wish to use other downlink spectrum, particularly for reception of transmissions from space stations with little or no U.S. coverage.⁹ Although the Commission had not requested comment on changing the allocation status of this downlink spectrum, it specifically contemplated that access to such spectrum could be granted “on a case-by-case basis under Part 25 licensing

⁵ *PanAmSat Licensee Corp.*, 17 FCC Rcd 10483, 10492 (Sat. Div. 2002) (footnotes omitted).

⁶ *See, e.g., Panasonic Avionics Corporation, Application for Authority to Operate Up to 50 Technically Identical Aeronautical Mobile-Satellite Service Aircraft Earth Stations in the 14.0-14.4 GHz and 11.7-12.2 GHz Frequency Bands*, Order and Authorization, 26 FCC Rcd 12557 (IB and OET 2011) at ¶ 11.

⁷ *See Row 44 Inc.*, File No. SES-MFS-20100715-00903, Call Sign E080100, Attachment at 3 (requesting expansion of the waiver of Section 2.106 that Row 44 was granted for conventional Ku-band downlinks to cover the proposed use of the 11.45-11.7 GHz band), granted Dec. 23, 2010.

⁸ *Service Rules and Procedures to Govern the Use of Aeronautical Mobile Satellite Service Earth Stations in Frequency Bands Allocated to the Fixed Satellite Service*, IB Docket No. 05-20, Notice of Proposed Rulemaking, 20 FCC Rcd 2906 (2005) at ¶ 18 (footnote omitted).

⁹ *See ESAA Order* at n.43.

rules.”¹⁰ For example, the Commission has authorized Gogo and other ESAA providers to receive signals in the 12.2-12.75 GHz band.¹¹

Consistent with these past rulings, Gogo requests a waiver of the Table of Allocations to permit its terminals to receive transmissions from Intelsat 20 in the 12.5-12.75 GHz band. As noted above, Gogo does not propose to use Intelsat 20 in U.S. airspace, and Intelsat has confirmed that Gogo’s proposed ESAA operations are consistent with Intelsat’s coordination agreements with satellites within six degrees. Authorizing Gogo to receive signals from Intelsat 20 will not alter the technical characteristics of the satellite’s operations in any way, and therefore will not create harmful interference to other authorized users of the spectrum. Furthermore, Gogo will not claim interference protection from such authorized users. Under these circumstances, grant of a Section 2.106 waiver is justified to permit use of the 12.5-12.75 GHz band for downlinks from Intelsat 20.

Public Interest Showing: Grant of the requested STA is consistent with Commission policy and will not adversely affect other authorized operations. Gogo’s proposed operations with Intelsat 20 are consistent with Intelsat’s coordination agreements with adjacent satellite operators and will also conform to the terms of Gogo’s agreements with the National Science Foundation and the National Aeronautics and Space Administration, as required by the Gogo ESAA License.¹² In addition, Gogo will comply with power flux density limits to protect terrestrial services outside the U.S.

Grant of the proposed STA will allow Gogo to respond to customer demand for increased capacity on important air transport routes over the Middle East, promoting competition in the provision of aeronautical services and expanding the availability of in-flight broadband to air travelers and crew members.

Gogo understands that any Commission grant of this STA will be without prejudice to the ultimate determination the Commission will make regarding Gogo’s future modification application. In addition, Gogo acknowledges that any action taken pursuant to a grant of the requested STA will be at Gogo’s own risk.

¹⁰ *Id.*

¹¹ *See, e.g.,* Gogo Blanket License, Section B (authorizing use of the 12.2-12.75 GHz band); *Panasonic Avionics Corporation*, File No. SES-MFS-20130930-00845, Call Sign E100089, granted Sept. 24, 2014 (the “Panasonic ESAA Grant”), Section B (authorizing use of the 10.7-12.75 GHz band).

¹² Gogo ESAA License at 7, condition 90057.

May 16, 2016

Federal Communications Commission
International Bureau
445 12th Street, S.W.
Washington, D.C. 20554

Re: Engineering Certification of Intelsat for IS-20 Satellite

To Whom It May Concern:

This letter confirms that Intelsat is aware that Gogo LLC ("Gogo") is planning to seek a modification to its blanket authorization (the "Modification Application") from the Federal Communications Commission ("FCC") to operate two types of Ku band transmit/receive earth stations aboard aircraft ("ESAA's"), Call Sign E120106. Among other changes, the Modification Application will seek authority for Gogo's ESAA terminals to communicate with the IS-20 satellite at 68.5° EL. under the current ESAA rules including Section 25.227.

Based upon the representations made to Intelsat by Gogo concerning the contents of its Modification Application:

- INTELSAT acknowledges that the proposed operation of the Gogo ESAA terminals has the potential to create harmful interference to satellite networks adjacent to IS-20 that may be unacceptable.
- Intelsat certifies that the proposed use of the ESAA transmit/receive terminals at the power density levels specified by Gogo are consistent with existing coordination agreements to which INTELSAT is a party with all adjacent satellite operators within +/- 6 degrees of orbital separation from IS-20.
- If the FCC authorizes the operations proposed by Gogo, Intelsat will include the power density levels specified by Gogo in all future satellite network coordination with other operators of satellites adjacent to IS-20.

Sincerely,



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