




1051

**APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY
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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
Iridium Satellite STA Request to Add Amplifier Equipment

1. Applicant	
Name: Iridium Satellite LLC	Phone Number: 301-571-6200
DBA Name:	Fax Number: 301-571-6250
Street: 6701 Democracy Blvd. Suite 500	E-Mail: pat.mahoney@iridium.com
City: Bethesda	State: MD
Country: USA	Zipcode: 20817 -
Attention: Ms Patricia A Mahoney	
 GRANTED International Bureau	
File # SES-STA-20040524-00717 Cell Site <u>E960132</u> Grant Date <u>7/8/04</u> (or other identifier) From <u>7/8/04</u> To <u>9/8/04</u> Approved: <u>Jeanette D. Briggs</u>	
2. Contact	
Name: Jennifer D. Hindin	Phone Number: 202-719-7000
Company: Wiley Rein & Fielding LLP	Fax Number: 202-719-7207
Street: 1776 K Street, N.W.	E-Mail: jhindin@wrf.com
City: Washington	State: DC
Country: USA	Zipcode: 20006 -
Contact Title:	Relationship: Legal Counsel
3. Reference File Number	
4a. Is a fee submitted with this application?	
<input checked="" type="radio"/> If Yes, complete and attach FCC Form 159.	
If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).	
<input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee	
<input type="radio"/> Other (please explain):	
4b. Fee Classification CGB	
5. Type Request	

CONDITIONS:

The Eagle Broadband, Inc. full-duplex MSS repeaters added via this modification are to be used only with non-common-carrier subscriber terminals, i.e. terminals provided to government users and served by the Iridium DoD gateway. It is the responsibility of the Licensee to insure that common-carrier subscriber terminals, i.e., those offered as CMRS under Section 20.9(a)(10) of the Commission's rules, do not make use of these repeaters.

This action is without prejudice to any enforcement action with respect to operation of full-duplex MSS repeaters prior to the date of this grant.

<input checked="" type="radio"/> Use Prior to Grant <input type="radio"/> Change Station Location <input type="radio"/> Other		
6. Requested Use Prior Date 5/25/2004		
7. City	8. Latitude (dd mm ss.s h)	
9. State	10. Longitude (dd mm ss.s h)	
11. Please supply any need attachments.		
Attachment 1: Attachment 1	Attachment 2: Attachment	Attachment 3: Attachment
12. Description. See Attachment 1.		
13. By checking Yes, the undersigned certifies that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for <input checked="" type="radio"/> Yes <input type="radio"/> No possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.		
14. Name of Person Signing Patricia A. Mahoney		15. Title of Person Signing Vice President - Regulatory & Spectrum Affairs
WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).		

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ATTACHMENT 1

Description of STA Request

Pursuant to Section 25.120 of the rules of the Federal Communications Commission (“FCC” or “Commission”),¹ Iridium Satellite LLC (“Iridium”) requests a special temporary authorization (“STA”), for a period of 60 days, to add new amplifier equipment to the mobile satellite service (“MSS”) handsets authorized under its existing blanket mobile earth terminal (“MET”) license (Call Sign E960132; File No. 423-DSE-P/L-96).² The proposed equipment will be manufactured by Eagle Broadband, Inc. (“Eagle Broadband”) (formerly, Eagle Wireless International, Inc.), and will serve as an extension of the Iridium MSS handset by amplifying signals to and from the handset in a linear, bi-directional manner.

Grant of this STA request will serve the public interest by permitting use of equipment that will enhance the existing satellite services for Iridium subscribers who rely upon those services for a variety of routine and mission-critical applications, including government/military operations and homeland security efforts. Specifically, by amplifying existing satellite signals, the proposed equipment will enable multiple MSS handsets to transmit and receive satellite communications quickly and reliably. It operates within the same technical parameters applicable to MSS handsets and has been certified under Part 2 of the FCC’s rules to comply with the technical requirements of Part 25 of the FCC’s rules,

¹ 47 C.F.R. § 25.120.

² Section 25.120(b)(3) of the FCC’s rules authorizes the Commission to grant an STA for 60 days “if the STA request has not been placed on public notice, and the applicant plans to file a request for regular authority for the service.” Iridium intends to file shortly an application for modification of its blanket MET license to obtain regular authority to add new amplifier equipment to its licensed MSS handsets.

including the out-of-band emission limits.³ Therefore, the proposed equipment will not create any greater risk of interference than any MSS handset authorized under Iridium's blanket MET license.

The proposed equipment is designed to serve as a lightweight, high-capacity, high-reliability, full-duplex MSS repeater. Each unit consists of two repeaters, two exterior antennas, and two interior antennas. The equipment may be installed within buildings, aircraft, and other structures that otherwise could effectively block MSS signal reception. Each of the four antennas is round in shape, is merely 2.75 in. (or 0.07 m.) in diameter and 0.6 in. (or 0.015 m.) in height, and weighs only 14 ounces. The two repeaters are housed in a lightweight aluminum casing and can be installed to operate in various temporary or permanent environments. Thus, the proposed equipment is suitable for installation in buildings or other fixed structures; military, commercial, or private aircraft, ships, and vehicles; and mobile or permanent government, military, or commercial facilities. Federal Aviation Administration notification is not required under Part 17 of the Commission's rules because the exterior antennas will not extend more than 6.1 meters above an existing structure.⁴

Consistent with Iridium's blanket MET license, the proposed equipment operates only on those frequencies within the 1.6 GHz band that are assigned to the Iridium MSS system. It cannot modify, process, or otherwise control the MSS signal in any way, but

³ See Certification Issued Under the Authority of the FCC to Eagle Wireless International Inc., FCC ID LOKJHJLBT05A00021 (granted on Oct. 25, 2003) ("Certification"). A detailed description of the proposed equipment, along with a demonstration of compliance with the Part 25 rules, is set forth in the underlying application for the Certification. See Application of Eagle Wireless International Inc. for Certification, FCC ID LOKJHJLBT05A00021 (granted on Oct. 25, 2003), available at <https://gullfoss2.fcc.gov/prod/oet/cf/eas/reports/GenericSearch.cfm>.

rather merely amplifies that signal. It cannot perform any frequency reuse function that would provide for additional communications channels or otherwise increase the capacity of the Iridium satellite system. Moreover, it does not consist of or communicate with any base stations or switches.

Two-way MSS transmissions are handled by two separate repeaters housed in a single casing with full isolation. One repeater is utilized for uplink transmissions, and the other is utilized for downlink transmissions. Each repeater is attached to a dedicated receiving antenna and a separate, dedicated transmitting antenna that will re-transmit the MSS signal.

The proposed equipment employs narrowband filtering that limits all Iridium satellite transmissions to the frequency band assigned to Iridium. Both repeaters are equipped with six pole band pass filters centered on the frequency band assigned to Iridium. This ensures that MSS uplink and downlink signals cannot interfere with each other.

Extraordinary circumstances warrant the Commission's grant of this STA request, which will satisfy an immediate need and demand for the proposed equipment without increasing the potential for harmful interference to other authorized services. Specifically, Eagle Broadband, the equipment manufacturer, has advised Iridium that several military customers have expressed an urgent need for new products such as the proposed equipment that would enhance MSS communications to support U.S. military operations in Iraq. Eagle Broadband further advised Iridium that a number of public safety agencies have requested MSS equipment that would satisfy the pressing needs of first responders and homeland security efforts. A delay in the grant of this STA request thus would seriously prejudice the

⁴ See 47 C.F.R. § 17.14(b).

public interest by depriving Iridium customers of innovative equipment that would enhance their communications capabilities during critical military operations and public safety missions. Accordingly, Iridium urges the Commission to grant this STA request expeditiously.