



Federal Communications Commission
Washington, D.C. 20554

DA 04-1640

June 04, 2004

Mr. Shawn Thompson
Director, Legal Services
DigitalGlobe, Inc.
1900 Pike Road
Longmont, CO 80501

Re: Modification of DigitalGlobe's Authorization to Operate a Non-Geosynchronous Orbit Satellite System in the Earth Exploration Satellite Service, File No. SAT-MOD-20040130-00010.

Dear Mr. Thompson:

On January 30, 2004, DigitalGlobe, Inc. (DigitalGlobe) filed the above-referenced application to modify its authorization to operate a Non-Geosynchronous Orbit Satellite System (NGSO) in the Earth Exploration Satellite Service (EESS). Specifically, DigitalGlobe seeks authority to construct, launch, and operate three remote sensing satellites and to construct two on-ground spare satellites that will operate/be capable of operating in the 7997.5-8372.5 MHz frequency band. DigitalGlobe also seeks authority to expand the range of authorized operations on its in-orbit satellite from 320 megahertz to 375 megahertz, or from 8025-8345 MHz to 7997.5-8372.5 MHz.¹ For the reasons discussed below, we dismiss the application as defective, without prejudice to refile. Additionally, we provide guidance regarding an orbital debris mitigation requirement and the status of the existing authorization.

Section 25.114(c) of the Commission's rules, 47 C.F.R. § 25.114(c), requires all space station applicants to submit all applicable items of information listed in its subsections. In the *First Space Station Reform Order*,² the Commission affirmed the policies embodied in these rules by continuing to require applications to be substantially complete when filed.³ As the Commission noted, the procedures

¹DigitalGlobe did not provide the center frequency for the increased bandwidth. However, if we rely on the information in DigitalGlobe's current authorization, i.e. the data downlink channel center frequency at 8185 MHz, we find that the proposed channel would occupy the 7997.5-8372.5 MHz band (*i.e.* 8185 MHz +/- (375 MHz /2)). This is consistent with its requests for its new satellites.

²Amendment of the Commission's Space Station Licensing Rules and Policies, First Report and Order and Further Notice of Proposed Rulemaking, IB Docket No. 02-34, 18 FCC Rcd 10760, 10852 (2003) (*First Space Station Reform Order*); International Bureau To Streamline Satellite And Earth Station Processing, *Public Notice*, Report No. SPB-140, October 28, 1998 (emphasizing the obligation to comply with 47 C.F.R. § 24.114(c) and stating that applications that did not comply would be dismissed).

³*First Space Station Reform Order*, 18 FCC Rcd at 10852 (para. 244), *citing* Amendment of the Commission's Space Station Licensing Rules and Policies, *Notice of Proposed Rulemaking, Space Station Reform*, IB Docket No.

and rules it adopted will enable the Commission to establish satellite licensees' operating rights clearly and quickly, and as a result, allow licensees to provide service to the public much sooner than might be possible under our previous licensing procedures.⁴ Finding defective applications acceptable for filing is not consistent with the rules and policies adopted by the Commission in the *First Space Station Reform Order* and only serves to create uncertainty and inefficiencies in the licensing process.

We have reviewed DigitalGlobe's application and have determined that it is missing the following required items of information: (1) a request for waiver of the Table of Frequency Allocations related to its proposed use of the 7997.5-8025 bands; (2) emission designator information related to the new spectrum on which it proposes to operate; (3) required information pertaining to the Right Ascension of the Ascending Node; and (4) an Orbital Debris Mitigation Statement. We discuss these in order.

DigitalGlobe requests authority to operate each of its three new satellites and to expand the operations of its in-orbit satellite in a single data downlink channel occupying the 7997.5-8372.5 MHz band.⁵ The 7997.5-8025 MHz portion of the requested band is not allocated to EESS or to any Non-Government Satellite Services. Sections 25.112(a)(2) and (b)(1) of the Commission's rules, 47 C.F.R. §§25.112(a)(2) and (b)(1), state that an application that does not substantially comply with the Commission's rules will be returned to the applicant as unacceptable for filing unless the application is accompanied by a waiver request with reasons supporting the waiver. DigitalGlobe did not request a waiver of the Table of Allocations to permit Non-Government EESS operations in the 7997.5-8025 MHz band allocated to Government-only services. Because DigitalGlobe has proposed only one wideband downlink EESS channel from 7997.5-8372.5 MHz, we cannot separate the conforming portion of its request from the non-conforming portion. Therefore, we find DigitalGlobe's application defective in its entirety and return it without prejudice pursuant to Sections 25.112(a)(2) and (b)(1) of the Commission's rules. In addition, we note that DigitalGlobe did not provide the required information concerning its emission designator for the entire 7997.5-8372.5 MHz band, which also renders the application defective.

Further, DigitalGlobe does not provide required information pertaining to the Right Ascension of the Ascending Node in the units specified in FCC Form 312, Table S4, for the two new proposed orbits. FCC Form 312, Table S4 specifically requires applicant(s) to provide the angle (in degrees) measured between the vernal equinox and the ascending node. DigitalGlobe, instead, provided the time when the satellites ascend the equatorial plane. Although this information is helpful, DigitalGlobe is nonetheless required to provide the information as specified.

With regard to the Orbital Debris Mitigation requirement, the *First Space Station Reform Order* requires that applicants for space station authorizations submit a narrative statement describing the design and operational strategies that they will use to mitigate orbital debris, as well as a casualty risk assessment if planned post-mission disposal involves atmospheric reentry. We note, however, that the National Oceanic and Atmospheric Administration (NOAA), the licensing authority for commercial remote sensing satellites, requires applicants for satellite remote sensing licenses to provide, pursuant to the Land Remote Sensing Policy Act, 15 U.S.C. § 5601 *et seq.*, a plan for post mission disposal. The Land Remote Sensing Policy Act requires that a NOAA remote sensing licensee "upon termination of operations under

02-34, 17 FCC Rcd 3847, 3875 (para. 84).

⁴*First Space Station Reform Order*, 18 FCC Rcd at 10765-66 (para. 4).

⁵FCC Form 312, Table S9: requested channel bandwidth: 375 MHz with center frequency at 8185 MHz.

the license, make disposition of any satellite in space in a manner satisfactory to the President.”⁶ Therefore, if DigitalGlobe refiles its application, in order to avoid duplicative U.S. regulatory requirements, we advise DigitalGlobe to seek a waiver of the Section 25.217(d) orbital debris mitigation disclosure requirement.

Finally, we clarify the status of DigitalGlobe’s current NGSO EESS authorization.⁷ The Bureau originally authorized DigitalGlobe’s predecessor, EarthWatch Incorporated (EarthWatch) to construct, launch, and operate an NGSO EESS system in 1995.⁸ The system consisted of two NGSO satellites operating in the 8305-8340 MHz band – Earlybird 1 and Earlybird 2. Subsequently, the Bureau granted EarthWatch’s request to add two satellites to its system authorization - QuickBird 1 and QuickBird 2 operating in the 8025-8345 MHz band.⁹ In 1997, EarthWatch experienced an in-orbit failure of the EarlyBird 1 satellite.¹⁰ Later that year, EarthWatch decided not to proceed with the launch of its second satellite, EarlyBird 2.¹¹ In November of 2000, EarthWatch experienced a launch failure of the Quickbird 1 satellite.¹² It subsequently launched QuickBird 2 and renamed it QuickBird 1.¹³ Thus, three of the four satellites in DigitalGlobe’s original authorizations were never put into use. The record does not reflect that EarthWatch/DigitalGlobe ever sought authority from the Commission for emergency replacements or otherwise sought to preserve the status of its system authorization. Consequently, DigitalGlobe is currently authorized to operate only one satellite – its in-orbit QuickBird 1 – in the 8025-8345 MHz band at an altitude (*i.e.* apogee and perigee) within 450-470 km and with inclination of 98 degrees.¹⁴ If DigitalGlobe seeks to modify its system in the future, its modification application must be based upon the current system authorization for one NGSO satellite.

⁶15 U.S.C. § 5622(b)(4).

⁷In its application, DigitalGlobe claims that it has Commission authorization to construct, launch and operate an NGSO constellation of four remote sensing satellites. *See* Application at 4.

⁸EarthWatch Incorporated, *Order and Authorization*, DA 95-1707, 10 FCC Rcd 10467 (Int’l Bur., 1995) (*EarthWatch Authorization Order*).

⁹EarthWatch Incorporated, *Order and Authorization*, DA 97-885, 12 FCC Rcd 21637 (Int’l Bur., 1997) (*EarthWatch First Modification Order*).

¹⁰<http://www.digitalglobe.com/about/history.shtml> (last visited on May 13, 2004) (“EarlyBird 1 was launched successfully Dec. 24, 1997, on a Start-1 rocket from Svobodny Russia. However, the satellite failed in orbit four days later . . .”).

¹¹*Id.* (“EarthWatch decided not to proceed with the launch of a second EarlyBird . . .”).

¹²*Id.* (“In November of 2000, EarthWatch launched the QuickBird 1 satellite from the Plesetsk cosmodome in Russia. QuickBird 1 failed to reach orbit.”)

¹³*Id.*

¹⁴EarthWatch Incorporated, *Order and Authorization*, DA 01-2054, 16 FCC Rcd 15, 985 (Int’l Bur., 2001) (*EarthWatch Fifth Modification Order*).

Accordingly, pursuant to the Commission's rules on delegated authority, 47 C.F.R. § 0.261(a)(4), we find that application File No. SAT-MOD-20040130-00010 is defective. We therefore dismiss this application, without prejudice to refiling.¹⁵

Sincerely,

Thomas S. Tycz
Satellite Division
International Bureau

¹⁵If DigitalGlobe refiles an application identical to the one dismissed, with the exception of supplying the missing information, it need not pay a further application fee. *See* 47 C.F.R. § 1.1109(d).