

S2129 SAT-MOD-20180918-00073 IB2018005831
DG Consents Sub, Inc.
USASAT-30A



File # SAT-MOD-20180918-00073

Call Sign S2129 Grant Date 06/13/19

(or other identifier)

Term Dates see
From 06/13/19 To: conditions

Approved by OMB
3060-0678

Approved:

Stephen J. Dull

Stephen J. Dull
Chief, Satellite Policy Branch

Date & Time Filed: Sep 18 2018 8:07:44:303AM
File Number: SAT-MOD-20180918-00073

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD – MAIN FORM

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FCC 312 MAIN FORM FOR OFFICIAL USE ONLY

APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
DigitalGlobe Legion MOD

1-8. Legal Name of Applicant

Name: DG Consents Sub, Inc.

Phone Number: 303-682-1390

DBA

Fax Number: 303-684-1390

Name:

Street: 1300 W. 120th Avenue

E-Mail: libby.smith@digitalglobe.com

City: Westminster

State: CO

Country: USA

Zipcode: 80234

Attention: Libby Smith

ATTACHMENT TO GRANT
DG Consents Sub, Inc.
IBFS File No. SAT-MOD-20180918-00073

IBFS File No(s):	SAT-MOD-20180918-00073	G R A N T - With Conditions  International Bureau Satellite Division
Licensee/Grantee:	DG Consents Sub, Inc.	
Call Sign:	S2129	
Satellite Name:	DigitalGlobe system (including WorldView 1-3 and WorldView-Legion 1-12)	
Orbital Location: (required station-keeping tolerance)	Non-geostationary orbit (NGSO) (see Scope of Grant and Previous Grants below)	
Administration:	United States of America	
Nature of Service:	Earth Exploration Satellite Service (EESS)	
Scope of Grant:	Modification of license to include authority to construct, launch, and operate twelve additional non-geostationary orbit (NGSO) remote sensing space stations. The twelve space stations will be organized in two Blocks: Block 1 (WorldView-Legion 1-6) and Block 2 (WorldView-Legion 7-12). The six space stations in each Block will operate over an altitude range of 450 to 870 kilometers (km) immediately following deployment and subsequently at nominal altitudes of 763 km for two sun-synchronous space stations inclined at 98.48 degrees and 518 km for four space stations inclined at 45 degrees. ¹	
Previous Grant(s)	Authority to construct, launch, and operate three NGSO remote sensing space stations, currently known as WorldView 1-3: ² <ul style="list-style-type: none"> • WorldView-1 (also known as WorldView 60): 506x521 km inclined at 97.36 degrees (+1.2/-0.1 degrees);³ • WorldView-2 (also known as WorldView 110): 795-780 km inclined at 98.5 degrees;⁴ • WorldView-3: 626x642 km inclined at 97.988 degrees.⁵ 	
Service Area(s):	Global	
Frequencies:	<u>WorldView-Legion 1-12:</u> 8025-8400 MHz (space-to-Earth) 2025-2110 MHz (Earth-to-space) Telemetry, Tracking & Command (TT&C): 8379.68 MHz -8380.32 MHz (space-to-Earth); 2085.02 – 2086.35 MHz (Earth-to-space) <u>WorldView-1:</u> 8025-8400 MHz (space-to-Earth)	

¹ DG Consents states that it received a license from the National Oceanic and Atmospheric Administration (NOAA) to operate the twelve WorldView-Legion satellites as part of its DigitalGlobe EESS system. Legal Narrative at 2.

² DG Consents was also authorized to construct, deploy and operate a fourth NGSO remote sensing satellite under Call Sign S2129, which was known as QuickBird-2, but that space station was retired on January 27, 2015 and is no longer part of the authorization for Call Sign S2129.

³ Modification of WorldView-1 space station to change orbital parameters. IBFS File No. SAT-MOD-20140327-00036, grant stamp dated June 5, 2014; Modification of license for WorldView-60 space station to operate with an apogee of 521 kilometers and perigee of 506 kilometers. IBFS File No. SAT-MOD-20070730-00107, grant stamp dated October 4, 2007. WorldView-1 was launched on Sept. 18, 2007. See Letter from Michael B. Adams, Jr., Associate General Counsel, DigitalGlobe, to Marlene H. Dortch, Secretary, FCC, IBFS File No. SAT-MOD-20061002-00115 (dated Sept. 28, 2007).

⁴ See IBFS File No. SAT-MOD-20070730-00107, granted Oct. 4, 2007.

⁵ DG Consents notified the Commission that WorldView-3 was successfully launched on August 13, 2014 and was placed in orbit with these orbital parameters. Letter from Philip A. Bonomo, Counsel to DG Consents Sub, Inc., to Marlene H. Dortch, Secretary, FCC, IBFS File No. SAT-MOD-20120710-00111 (filed Sept. 3, 2014).

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	<p>2025-2110 MHz (Earth-to-space) TT&C: 8185 MHz (space-to-Earth); 2085.6875 MHz (Earth-to-space)</p> <p><u>WorldView-2:</u> 8025-8400 MHz (space-to-Earth) 2025-2110 MHz (Earth-to-space) TT&C: 8185 MHz (space-to-Earth); 2085.6875 MHz (Earth-to-space)</p> <p><u>WorldView-3:</u> 8025-8400 MHz (space-to-Earth) 2025-2110 MHz (Earth-to-space) TT&C: 8185 MHz (space-to-Earth); 2085.6875 MHz (Earth-to-space)</p>
<p>Operations under this grant must comport with the legal and technical specifications set forth by the applicant or petitioner and with Federal Communication Commission's rules not waived herein. This grant is also subject to the following conditions:</p>	
<ol style="list-style-type: none">1. DG Consents must prepare the necessary information, as may be required, for submission to the International Telecommunication Union (ITU) to initiate and complete the advance publication, coordination, due diligence, and notification process for these space stations, in accordance with the ITU Radio Regulations. DG Consents shall be held responsible for all cost-recovery fees associated with ITU filings. No protection from interference caused by radio stations authorized by other administrations is guaranteed unless coordination and notification procedures are timely completed or, with respect to individual administrations, by successfully completing coordination agreements. Any radio station authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination with the frequency assignments of other administrations. <i>See 47 CFR § 25.111(b).</i>2. Upon receipt of a conjunction warning from the JSpOC or other source, DG Consents must review the warning and take all possible steps to assess and, if necessary, to mitigate collision risk, including, but not limited to: contacting the operator of any active spacecraft involved in such warning; sharing ephemeris data and other appropriate operational information with any such operator; modifying spacecraft attitude and/or operations.3. The number of simultaneously operational WorldView-Legion satellites must not exceed 12.⁶4. Power flux-density from operation in the 8025-8400 MHz band must not exceed the limits in No. 22.5 and Table 21-4 of the International Telecommunication Union's Radio Regulations, the limits/protection criteria in Recommendation ITU-R SA.1157-1 must be met, and the guidelines in Recommendation ITU-R SA.1810 must be followed.5. Given the opportunity for additional entrants to operate in WorldView-Legion's requested frequency bands, we grant DG Consents' request for a waiver of the modified processing round requirements of 47 CFR §§ 25.156 and 25.175. <i>See DigitalGlobe, Inc. Order and Authorization, 20 FCC Rcd 15696 (Sat. Div., Int'l Bur. 2005) at para. 8.</i>6. Because DG Consents must comply with the technical requirements in Part 2 of the Commission's rules and the above-referenced power flux-density limits, which should prevent harmful interference to other operators in the band, we grant its request for a waiver of the default service rules in 47 CFR § 25.217(b). <i>See DigitalGlobe, Inc., supra</i> at para. 15.	

⁶ We note that the total number of simultaneously operational satellites refers specifically to those satellites providing EESS and does not include non-operational satellites that continue to operate in TT&C frequency bands as part of approved post-mission disposal plans.

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7. Transmissions of remote-sensing and telemetry data in the 8025-8400 MHz frequency band may only be made to earth stations coordinated with the Air Force Spectrum Management Office (AFSMO), National Aeronautics and Space Administration (NASA), and National Oceanic and Atmospheric Administration (NOAA). DG Consents shall provide the FCC the list of coordinated earth stations.
8. Operations pursuant to this authorization must not cause harmful interference to stations operating in the 2025-2110 MHz band in accordance with the U.S. Table of Frequency Allocations. *See* 47 CFR § 2.106, Footnote US347.
9. This authorization will become null and void if, at any time during the license term, none of the satellites hereby authorized is operating. This authorization may be subject to additional conditions, or a reduction in the number of authorized satellites, in the event future deployment rates do not justify an authorization for 12 operational WorldView-Legion satellites.
10. DG Consents has fulfilled milestone and bond obligations imposed as conditions to a previous grant of authority to operate up to 4 NGSO satellites in the 8025-8400 MHz band. *See* IBFS File No. SAT-MOD-2014-0170-00111 (grant stamp dated Jan. 24, 2013). Because of the need for DG Consents to continuously replenish its satellite constellation within the duration of its license term, we will not impose additional milestones or bond conditions in connection with this license modification. We find that warehousing concerns are addressed in this situation through the imposition of condition 9 above.
11. Within 30 days after deployment of each satellite pursuant to this authorization, DG Consents must file a notification with the Commission specifying its apogee and perigee altitudes and orbital inclination.
12. Nothing in this authorization extends the license term for Call Sign S2129, which expires on October 8, 2024.⁷

Licensee/grantee is afforded thirty (30) days from the date of release of this action to decline the grant as conditioned. Failure to respond within this period will constitute formal acceptance of the grant as conditioned.

This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 CFR § 0.261, and is effective upon release.

Station licenses are subject to the conditions specified in Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. § 309(h).

Action Date:	June 13, 2019	
Term Dates	From: June 13, 2019	To: see conditions

Approved:



Stephen J. Duall
Chief, Satellite Policy Branch

⁷ *See* IBFS File No. SAT-MOD-20120710-00111 (grant stamp dated Jan. 24, 2013).

9-16. Name of Contact Representative

Name:	Henry Gola	Phone Number:	2027197561
Company:	Wiley Rein LLP	Fax Number:	
Street:	1776 K St NW	E-Mail:	hgola@wileyrein.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20006-
Attention:	Henry Gola	Relationship:	Legal Counsel

CLASSIFICATION OF FILING

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.

- a1. Earth Station
- a2. Space Station

- (N/A) b1. Application for License of New Station
- (N/A) b2. Application for Registration of New Domestic Receive-Only Station
- b3. Amendment to a Pending Application
- b4. Modification of License or Registration
- b5. Assignment of License or Registration
- b6. Transfer of Control of License or Registration
- b7. Notification of Minor Modification
- (N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite
- (N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States
- (N/A) b10. Other (Please specify)
- (N/A) b11. Application for Earth Station to Access a Non-U.S. satellite Not Currently Authorized to Provide the Proposed Service in the Proposed Frequencies in the United States
- (N/A) b12. Application for Database Entry
- b13. Amendment to a Pending Database Entry Application
- b14. Modification of Database Entry

17c. Is a fee submitted with this application?

If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).

Governmental Entity Noncommercial educational licensee

Other(please explain):

17d.

Fee Classification CGW – Space Station Modification(Non-Geostationary)

18. If this filing is in reference to an existing station, enter:

(a) Call sign of station:

S2129

19. If this filing is an amendment to a pending application enter both fields, if this filing is a modification please enter only the file number:

(a) Date pending application was filed:

(b) File number:

SATMOD2014032700036

TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:

- a. Fixed Satellite
- b. Mobile Satellite
- c. Radiodetermination Satellite
- d. Earth Exploration Satellite
- e. Direct to Home Fixed Satellite
- f. Digital Audio Radio Service
- g. Other (please specify)

21. STATUS: Choose the button next to the applicable status. Choose only one.

Common Carrier Non-Common Carrier

22. If earth station applicant, check all that apply.

- Using U.S. licensed satellites
- Using Non-U.S. licensed satellites

23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:

Connected to a Public Switched Network Not connected to a Public Switched Network N/A

24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applicable frequency band(s).

- a. C-Band (4/6 GHz)
- b. Ku-Band (12/14 GHz)
- c. Other (Please specify upper and lower frequencies in MHz.)

Frequency Lower: 2025

Frequency Upper: 8400

(Please specify additional frequencies in an attachment)

TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.

- a. Fixed Earth Station
- b. Temporary-Fixed Earth Station
- c. 12/14 GHz VSAT Network
- d. Mobile Earth Station
- e. Geostationary Space Station
- f. Non-Geostationary Space Station
- g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY:

- Transmit/Receive
- Transmit-Only
- Receive-Only
- N/A

"For Space Station applications, select N/A."

PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)

- a --- authorization to add new emission designator and related service
- b --- authorization to change emission designator and related service
- c --- authorization to increase EIRP and EIRP density
- d --- authorization to replace antenna
- e --- authorization to add antenna
- f --- authorization to relocate fixed station
- g --- authorization to change frequency(ies)
- h --- authorization to add frequency
- i --- authorization to add Points of Communication (satellites & countries)
- j --- authorization to change Points of Communication (satellites & countries)
- k --- authorization for facilities for which environmental assessment and radiation hazard reporting is required
- l --- authorization to change orbit location
- m --- authorization to perform fleet management
- n --- authorization to extend milestones
- o --- Other (Please specify)

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.

Yes No

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30-34.

29. Is the applicant a foreign government or the representative of any foreign government?

Yes No

30. Is the applicant an alien or the representative of an alien?

Yes No N/A

31. Is the applicant a corporation organized under the laws of any foreign government?

Yes No N/A

32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?

Yes No N/A

33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country? Yes No N/A

34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.

BASIC QUALIFICATIONS

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? Yes No
If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.

36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explanation of circumstances. Yes No

37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of circumstances.

Yes

No

38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances

Yes

No

39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, an explanation of the circumstances.

Yes

No

40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.

Ownership Exhibit

41. 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 possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.

Yes

No

42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.

Yes

No

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?

43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

The applicant requests modification of its Earth Exploration Satellite Service space station authorization under call sign S2129 to add new NGSO space stations.

Narrative

43a. Geographic Service Rule Certification

By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.

A

By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.

B

By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.

C

CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to applicable response.)

- Individual
- Unincorporated Association
- Partnership
- Corporation
- Governmental Entity
- Other (please specify)

45. Name of Person Signing
Libby J. Smith

46. Title of Person Signing
Technology Control Officer

--->

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