

Approved by OMB
3060-0678

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File Number: SAT-MOD-20050511-00097

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD - MAIN FORM	FCC Use Only
FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	

APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
OrbView-5

1-8. Legal Name of Applicant			
Name:	ORBIMAGE Inc.	Phone Number:	703-480-7500
DBA Name:		Fax Number:	703-480-7544
Street:	21700 Atlantic Boulevard	E-Mail:	warren.william@orbimage.com
City:	Dulles	State:	VA
Country:	USA	Zipcode:	20166 -
Attention:	Mr William L Warren		

See also SAT-AMD-20051118-00234



File # SAT-MOD-20050511-00097

Call Sign _____ Grant Date 1/9/06
(or other identifier)

Term Dates 15 yrs from
From 1/9/06 To: launch + operation
S 25.121(d)

Approved: [Signature]
Policy Branch Chief

w/conditions

ATTACHMENT
SAT-MOD-20050511-00097
SAT-AMD-20051118-00234
January 9, 2006

ORBIMAGE, Inc.'s (ORBIMAGE's) application, SAT-MOD-20050511-00097, as amended by SAT-AMD-20051118-00234,¹ to modify its existing authorization² to operate a Non-Geosynchronous Orbit Satellite System (NGSO) in the Earth Exploration Satellite Service (EESS) IS GRANTED. Accordingly, ORBIMAGE is authorized to construct, launch, and operate an additional NGSO satellite, OrbView-5, that will be in a sun-synchronous orbit 684 Km above the Earth, with an inclination of 98.1272 degrees. Specifically, ORBIMAGE is authorized to operate an X-band data downlink centered at 8210 MHz with a 370 MHz bandwidth and an X-band data downlink centered at 8210 MHz with a 150 megahertz bandwidth for EESS service and to conduct an uplink tracking, telemetry and control (TT&C) in a 128 kilohertz channel at 2092.6 MHz center frequency and downlink TT&C in a 59.7 kilohertz channel at 8394 MHz center frequency,³ in accordance with the technical parameters set forth in its application, the Commission's Rules, and the terms and conditions set forth below.

1. ORBIMAGE's downlink operations on the frequencies centered at 8210 MHz and 8394 MHz with Orbview-5 should not interfere with the Federal Aviation Authority's fixed microwave links transmitting in a 20 megahertz bandwidth channel at 8390 MHz center frequency from Fort Meade, MD and Fairfax station, VA.
2. ORBIMAGE's downlink operation on the frequency centered at 8394 MHz with Orbview-5 should not cause interference to the Defense Satellite Communications System satellite's uplink operations in Virginia and Earechson, Alaska.
3. ORBVIEW-5 must be constructed, launched and placed into operation in accordance with the technical parameters of its application and the dates set forth below in accordance with in Section 25.164(b) of the Commission's rules.

¹ ORBIMAGE's modification was placed on public notice as acceptable for filing on 06/10/05. Report No. SAT-00297. No comments were filed. IBFS file No. SAT-AMD-20051118-00234 contains Orbimage's orbital debris disclosure statement. Based upon our review, we conclude that the plan presented by ORBIMAGE for the Orbview-5 satellite demonstrates its operation raises no public interest concerns related to orbital debris. The FCC has neither reviewed nor approved Orbimage's launch vehicle and end-of-life plans. Any necessary review or approvals for those plans must be obtained from other government agencies.

² ORBIMAGE currently operates a single NGSO satellite, OrbView-3. See File No. SAT-LOA-19980203-00012; Call Sign S2348. Orbview-3 currently operates an X-band downlink in the 8115-8265 MHz band. It currently operates tracking, telemetry, and control (TT&C) uplink at 402.705-402.735 MHz, and in the S-band at 2092.536-2092.664 MHz, and TT&C downlinks at 401.47-401.53 MHz bands.

³ All TT&C and the principal data downlink for the OrbView-5 satellite will be performed at the Dulles, VA (E980375) and Barrow, AK (E980376) ground stations.

- A: Enter into a binding non-contingent contract to construct Orbview-5 by January 9, 2007.
- B: Complete the Critical Design Review of Orbview-5 by January 9, 2008.
- C: Begin the construction of Orbview-5 by July 9, 2009.
- D: Launch and begin operations of Orbview-5 by July 9, 2010.
- E: ORBIMAGE must file a bond with the Commission in the amount of \$5,000,000.00 pursuant to the procedures set forth in Public Notice, DA 03-2602, 18 FCC Rcd 16283 (2003), within 30 days of the date of this grant.

Failure to meet any of these dates shall render this authorization null and void.

5. We GRANT ORIMAGE's request for waiver of the "default service rules," contained Section 25.217 (b) of the Commission's rules, which apply to satellite facilities that operate in frequency bands in which the Commission has yet to adopt service specific rules. Although the Commission has not adopted band specific service rules for EESS NGSO operations in the X-band, EESS X-band operators are required to comply with technical requirements in Part 2 of the Commission's rules,⁴ and the applicable ITU rules. We have previously found that these requirements are sufficient to prevent harmful interference in the X-band.⁵ Accordingly, we decline to impose additional technical requirements on X-band operations and grant ORBIMAGE a waiver of Section 25.217(b) of the Commission rules. This grant is consistent with previous Commission decisions granting of waivers of the default service rules in Section 25.217(b) of the Commission's rules to NGSO EESS system licensees.⁶

6. We GRANT ORBIMAGE's request for waiver of Sections 25.156 and 25.157 of the Commission's rules, to the extent necessary, to enable the Bureau to consider its EESS application on a first-come, first-served basis as set forth in Section 25.158 of the Commission's rules. ORBIMAGE is requesting authorization for 220 megahertz of additional spectrum in the X-band for its operations with ORBVIEW-5. Thus, without a waiver, a processing round would be required. Authorizing ORBIMAGE to operate Orbview-5 in the additional spectrum will not preclude others from operating in the bands, and will not cause harmful interference to other EESS systems operating in the

⁴ 47 C.F.R. § 2.106, footnote 258.

⁵ See DigitalGlobe, Inc., *Order and Authorization*, DA 05-2640 (Int'l Bur., September 30, 2005) (*DigitalGlobe Order*) (authorizing DigitalGlobe to modify its EESS system license to add 3 new remote-sensing satellites that will operate in the 8025-8400 MHz band); Space Imaging, LLC, *Declaratory Order and Authorization*, DA 05-1940 (Int'l Bur., July 6, 2005) (*Space Imaging Order*) (authorizing Space Imaging to modify its Norman OK, Earth Station license to add the Indian-licensed remote-sensing satellite, ResourceSat-1, as a point of communication.)

⁶ *Space Imaging Order* at para. 25. *DigitalGlobe Order* at para. 15.

bands. Consequently, we find there was no need to conduct a modified processing round for the requested spectrum and grant ORBIMAGE a waiver of the processing round requirement in Sections 25.156 and 25.157 of the Commission's rules. Our action here is consistent with Commission precedent in which we previously granted waivers of the modified processing round rules to NGSO EESS operators, where those operators requested additional spectrum for their proposed operations.⁷

7. IT IS FURTHER ORDERED that, ORBIMAGE is afforded 30 days from release of this Order to decline this authorization as conditioned. Failure to respond within that period will constitute formal acceptance of the authorization as conditioned.

8. IT IS FURTHER ORDERED that, ORBIMAGE shall prepare the necessary information, as may be required, for submission to the International Telecommunications Union (ITU) to initiate and complete the advance publication, international coordination, due diligence, and notification process of these space stations, in accordance with the ITU Radio Regulations. ORBIMAGE shall be held responsible for all cost-recovery fees associated with these ITU filings. We also note that 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 of the frequency assignments of other administrations. See 47 C.F.R. § 25.111(b).

9. This Order is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon adoption. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of the Public Notice announcing that this action was taken.



w/conditions

File # SAT-MOD-20050511-00097

Call Sign _____ Grant Date 1/9/06
(or other identifier) 15 yrs. from
Term Dates launch & operation
From 1/9/06 To: § 25.121(a)

Approved: Andrew J. Kelley
Policy Branch Chief

⁷ See *Space Imaging Order* at paras. 8-11; *DigitalGlobe Order* at paras. 6-8.

9-16. Name of Contact Representative

Name:	William S. Carnell	Phone Number:	202-637-2200
Company:	Latham & Watkins	Fax Number:	202-637-2201
Street:	555 Eleventh St NW Suite 1000	E-Mail:	william.carnell@lw.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20004-1304
Attention:		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
- (N/A) b3. Amendment to a Pending Application
- (N/A) b4. Modification of License or Registration
- b5. Assignment of License or Registration
- b6. Transfer of Control of License or Registration
- (N/A) 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)

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:
S2348

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:

SATLOA1998020300012

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: 8025

Frequency Upper: 8395

(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

Exhibit 3

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 N/A

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.

Exhibit 4

BASIC QUALIFICATIONS

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules?
If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.

Yes No

Exhibit 5

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

Exhibit 6

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

Exhibit 7

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.

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.)

This application, is a request for authorization to modify Space Station license call sign S2348, under which a single NGSO satellite is currently operated, to include an additional commercial remote sensing satellite planned for launch Feb 15, 2007.

Exhibit 1

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
William L. Warren

→

46. Title of Person Signing
General Counsel

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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