



UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION AUTHORIZATION

Name: WorldVu Satellites Limited, Debtor-in-Possession

Call Sign: E181294

Authorization Type: License

File Number: SES-LIC-20180727-02076

Non Common Carrier

Grant date: 08/24/2020

Expiration Date: 08/24/2035

Nature of Service: Fixed Satellite Service

Class of Station: Fixed Earth Stations

A) Site Location(s)

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
1)	SNP Gateway SOU2508	COMSAT, Inc. 2120 River Road Southbury, New Haven, CT 6488 Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209	41°27'6.4"N	73°17'21.6"W	38.99	83

Subject to the provisions of the Communications Act of 1934, The Communications Satellite Act of 1962, subsequent acts and treaties, and all present and future regulations made by this Commission, and further subject to the conditions and requirements set forth in this license, the grantee is authorized to construct, use and operate the radio facilities described below for radio communications for the term beginning August 24, 2020 (3 AM Eastern Standard Time) and ending August 24, 2035 (3 AM Eastern Standard Time). The required date of completion of construction and commencement of operation is August 24, 2021 (3 AM Eastern Standard Time). Grantee must file with the Commission a certification upon completion of construction and commencement of operation.

B) Particulars of Operations

The General Provision 1010 applies to all receiving frequency bands.

The General Provision 1900 applies to all transmitting frequency bands.

For the text of these provisions, refer to Section H.

#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
1)	29500.0000-30000.0000	L,R	250MG7D	Tx	66.00	18.40	CPI 3.5m		using Adaptive Code Modulating with QPSK, 8PSK, 16QAM, 32QAM, or 64QAM modulations and variable coding rates
2)	27500.0000-29100.0000	L,R	250MG7D	Tx	66.00	18.40	CPI 3.5m		using Adaptive Code Modulating with QPSK, 8PSK, 16QAM, 32QAM, or 64QAM modulations and variable coding rates
3)	18800.0000-19300.0000	L,R	20M0G7D	Rx	0.00	0.00	CPI 3.5m		emission range of 2M50G7D to 20M0G7D using Adaptive Code Modulating with QPSK, 8PSK, 16QAM, 32QAM, or 64QAM modulations and variable coding rates



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4)	18800.0000-19300.0000	L, R	2M50G7D	Rx	0.00	0.00	CPI 3.5m		emission range of 2M50G7D to 20M0G7D using Adaptive Code Modulating with QPSK, 8PSK, 16QAM, 32QAM, or 64QAM modulations and variable coding rates
5)	17800.0000-18600.0000	L, R	20M0G7D	Rx	0.00	0.00	CPI 3.5m		emission range of 2M50G7D to 20M0G7D using Adaptive Code Modulating with QPSK, 8PSK, 16QAM, 32QAM, or 64QAM modulations and variable coding rates
6)	17800.0000-18600.0000	L, R	2M50G7D	Rx	0.00	0.00	CPI 3.5m		emission range of 2M50G7D to 20M0G7D using Adaptive Code Modulating with QPSK, 8PSK, 16QAM, 32QAM, or 64QAM modulations and variable coding rates

C) Frequency Coordination Limits

#	Frequency Limits (MHz)	Satellite Arc (Deg. Long.)		Elevation (Degrees)		Azimuth (Degrees)		Max EIRP Density toward Horizon (dBW/4kHz)	Associated Antenna(s)
		East Limit	West Limit	East Limit	West Limit	East Limit	West Limit		
1)	29500.0000-30000.0000	NGSO		05.0-05.0		000.0-360.0		-30.4	CPI 3.5m
2)	17800.0000-18600.0000	NGSO		05.0-05.0		000.0-360.0		0	CPI 3.5m
3)	18800.0000-19300.0000	NGSO		05.0-05.0		000.0-360.0		0	CPI 3.5m
4)	27500.0000-29100.0000	NGSO		05.0-05.0		000.0-360.0		-30.4	CPI 3.5m

D) Points of Communications

The following stations located in the Satellite orbits consistent with Sections B and C of this Entry:

- 1) SNP Gateway SOU2508 to ONEWEB NGSO (S2963) (UK Licensed) [1200x1200 km @ 87.9° Inclination, 18 planes beginning at 0° RAAN spaced every 10.2°]



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E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
SNP Gateway SOU2508	CPI 3.5m	26	3.5	CPI	4715000-01	38.99	4.55 AGL/ 43.54 AMSL	
Max Gains(s):								
		57.9 dBi @	28.3000 GHz	54.6 dBi @	19.0500 GHz	54.4 dBi @		
		18.2000 GHz	58.2 dBi @	29.7500 GHz	54.6 dBi @	18.9500 GHz	58.0	
		dBi @	28.7500 GHz					
Maximum total input power at antenna flange (Watts) =					50.30			
Maximum aggregate output EIRP for all carriers (dBW) =					75.00			

F) Remote Control Point:

SNP Gateway 2550 Wasser Terrace, Suite 6000
SOU2508

Call Sign:

Herndon, Fairfax, VA 20171
571-599-3605

G) Antenna Structure marking and lighting requirements:

None unless otherwise specified under Special and General Provisions

H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

5 --- Licensee must notify the Commission when this earth station is no longer operational or when it has not been used to provide any service during any 6-month operation.

6 --- Licensee must comply with the license modification and notification requirements of 47 CFR § 25.118 to change the coordinates of its authorized earth station.

8 --- Licensee must notify the Commission when all earth stations operating under this authorization are no longer operational or when they have not been used to provide any service during any 6-month operation.

10 --- Earth station antennas must not transmit at elevation angles less than five degrees, measured from the horizontal plane to the direction of maximum radiation, in a frequency band shared with terrestrial radio services or in a frequency band with an allocation to space services operating in both the Earth-to-space and space-to-Earth directions. In other bands, earth station antennas must not transmit at elevation angles less than three degrees.

90491 --- Operations in the 27.5-28.35 GHz (Earth-to-space) frequency band are authorized based on a demonstration of compliance with 47 CFR § 25.136(a)(4). Consequently, this earth station may operate without providing any additional interference protection to stations in the Upper Microwave Flexible Use Service (UMFUS) in the 27.5-28.35 GHz frequency band.



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H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

- 90584 --- We reviewed Comments of Space Exploration Holdings, LLC (filed August 23, 2019) objecting to Worldvu's proposed operations using a minimum elevation angle as low as five degrees and requesting additional showings that such operations will not present interference problems. Based on the information before us, we find that the Southbury, CT Earth Station will be communicating with the WorldVu satellite constellation which received a "favorable" finding for its planned operations from the ITU Radiocommunications Bureau. In addition, the required terrestrial coordination was performed by Comsearch and conducted using a five degree minimum elevation angle. Consequently, we find that Worldvu's operations will not interfere with GSO or NGSO operations and grant WorldVu's application as conditioned herein
- 90591 --- Operation at Satellite Network Portal (SNP) earth station in Southbury, CT, must be in accordance with the coordination agreement between OneWeb and other satellite operators.
- 90592 --- The earth station licensee is required to take corrective action to mitigate interference in the 27.5-28.35 GHz frequency band if the actual PFD, at ten meters above ground level, exceeds -77 .6 dBm/m2/MHz anywhere outside the contour specified in the application.



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B) This RADIO STATION AUTHORIZATION is granted subject to the additional conditions specified below:

This authorization is issued on the grantee's representation that the statements contained in the application are true and that the undertakings described will be carried out in good faith.

This authorization shall not be construed in any manner as a finding by the Commission on the question of marking or lighting of the antenna system should future conditions require. The grantee expressly agrees to install such marking or lighting as the Commission may require under the provisions of Section 303(q) of the Communications Act. 47 U.S.C. § 303(q).

Neither this authorization nor the right granted by this authorization shall be assigned or otherwise transferred to any person, firm, company or corporation without the written consent of the Commission. This authorization is subject to the right of use or control by the government of the United States conferred by Section 706 of the Communications Act. 47 U.S.C. § 706. Operation of this station is governed by Part 25 of the Commission's Rules. 47 C.F.R. Part 25.

This authorization shall not vest in the licensee any right to operate this station nor any right in the use of the designated frequencies beyond the term of this license, nor in any other manner than authorized herein.

This authorization is issued on the grantee's representation that the station is in compliance with environmental requirements set forth in Section 1.1307 of the Commission's Rules. 47 C.F.R. § 1.1307.

This authorization is issued on the grantee's representation that the station is in compliance with the Federal Aviation Administration (FAA) requirements as set forth in Section 17.4 of the Commission's Rules. 47 C.F.R. § 17.4.

The following condition applies when this authorization permits construction of or modifies the construction permit of a radio station.

This authorization shall be automatically forfeited if the station is not ready for operation by the required date of completion of construction unless an application for modification of authorization to request additional time to complete construction is filed by that date, together with a showing that failure to complete construction by the required date was due to factors not under control of the grantee.

Licensees are required to pay annual regulatory fees related to this authorization. The requirement to collect annual regulatory fees from regulatees is contained in Public Law 103-66, "The Omnibus Budget Reconciliation Act of 1993." These regulatory fees, which are likely to change each fiscal year, are used to offset costs associated with the Commission's enforcement, public service, international and policy and rulemaking activities. The Commission issues a Report and Order each year, setting the new regulatory fee rates. Receive only earth stations are exempt from payment of regulatory fees.