

PROPRIETARY INFORMATION
National Oceanic and Atmospheric Administration
License to Operate a Private Remote Sensing Space System



The National Oceanic and Atmospheric Administration (NOAA), an agency of the U.S. Department of Commerce, hereby grants this Tier 1 license authorizing Sidus Space, Inc. to operate LizzieSat 1-3, a private remote-sensing space system comprised of 3 satellites with the following capabilities and described completely in Part D of this license:

Panchromatic (PAN) (300 – 1,000 nm) at 39.78 m Ground Sample Distance (GSD)
Shortwave Infrared (SWIR) (600 – 1,700 nm) at 102 m Ground Sample Distance (GSD)
Panchromatic (PAN) (300 – 1,100 nm) at 45.9 m Ground Sample Distance (GSD)

Please submit any communications, including all communications required by the regulations at 15 CFR Part 960 and this license to:

Commercial Remote Sensing Regulatory Affairs (CRSRA)
1335 East-West Highway SSMC-1/G-101
Silver Spring, MD 20910
Email: crsra@noaa.gov

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Part A: Determination and License Grant

The National Oceanic and Atmospheric Administration, an agency of the U.S. Department of Commerce, acting pursuant to authority delegated by the Secretary of Commerce (the Secretary), determines that Sidus Space, Inc., as described in Part C of this license, will comply with the requirements of the Land Remote Sensing Policy Act of 1992, as amended, codified at 51 U.S.C. 60101 et seq., (hereinafter “Act”), the regulations promulgated thereunder, 15 CFR Part 960 (“the regulations”); and the conditions in this license.

Accordingly, NOAA hereby grants Sidus Space, Inc. (hereinafter “Licensee”), as described in Part C of this license, this license to operate LizzieSat 1-3 (hereinafter “the System”), as described in Part D of this license, subject to the terms and conditions of this license. This license is valid until its term ends in accordance with the regulations. The Licensee must request and receive approval for a license modification before taking any action that would contradict a material fact listed in Part C or D of this license.

NOAA makes this determination, and grants this license, under the authority delegated to him by the Secretary of Commerce. The Secretary's authority is found in the Act and the regulations. This license does not authorize the System's use of spectrum for radio communications or the conduct of any non-remote sensing operations that are proposed to be undertaken by the Licensee. This license is not alienable and creates no property right in the Licensee.

IN WITNESS THEREOF, I hereby grant this License:

FOR Richard Dalbello, Director
Office of Space Commerce

Date

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Part B: Tier 1 License Conditions

The Licensee must, at all times:

1. Comply with the Act, the Regulations, this license, applicable domestic legal obligations, and the international obligations of the United States.
2. Operate the system in such manner as to preserve the national security of the United States and to observe international obligations and policies, as articulated in conditions included in this license.
3. Upon request, offer to the government of any country (including the United States) unenhanced data collected by the system concerning the territory under the jurisdiction of such government without delay and on reasonable terms and conditions, unless doing so would be prohibited by law or license conditions.
4. Upon termination of operations under the license, make disposition of any satellites in space in a manner satisfactory to the President.
5. Notify the Secretary in writing of each of the following events, no later than seven days after the event:
 - i. The launch and deployment of each system component, to include confirmation that the component matches the orbital parameters and data collection characteristics of the system, as described in Part D of the license;
 - ii. Each disposal of an on-orbit component of the system;
 - iii. The detection of an anomaly; and
 - iv. The licensee's financial insolvency or dissolution;
6. Request and receive approval for a license modification before taking any action that would change a material fact in the license.
7. Certify that all material facts in the license remain accurate pursuant to the procedures in § 960.14 no later than October 15th of each year.
8. Cooperate with compliance, monitoring, and enforcement authorities described in the Act and this part, and permit the Secretary to access, at all reasonable times and with no shorter notice than 48 hours, any component of the system for the purpose of ensuring compliance with the Act, this part, and the license.
9. Refrain from disseminating unenhanced data, or processed data or products derived from the licensee's system, of the State of Israel at a resolution finer than the resolution most recently specified by the Secretary in the Federal Register as being available from commercial sources.
 - i. The most recent resolution specified by the Secretary is 0.4 m GSD, please see FR Doc.2020-15770, publish date: July 21, 2020.

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Part C: Description of Licensee

Every term below constitutes a material fact. You must request and receive approval of a license modification before taking any action that would contradict a material fact.

1. General Licensee Information:

a. Name of Licensee:

Sidus Space, Inc.

b. Location and address of Licensee:

400 W Central Blvd.

Cape Canaveral, FL 32920

c. Licensee contact information:

Sidus Space Mission Control Center HQ

150 N Sykes Creek Pkwy, Suite 200

Merritt Island, FL 32953

Telephone Number: (321) 450-5633

d. Contact information for a specific individual to serve as the point of contact with Commerce:

John Curry, Chief Mission Operations Officer,

(409) 370-7190, John.Curry@sidusspace.com

400 W Central Blvd, Cape Canaveral, FL 32920

Lindsey Waitt, LizzieSat Program Manager,

(321) 450-5633 x453, Lindsey.Waitt@sidusspace.com

400 W Central Blvd, Cape Canaveral, FL 32920

e. Place of incorporation and, if incorporated outside the United States, confirmation that the Licensee acknowledged as part of the application that the Licensee will operate its system within the United States and is therefore subject to the Secretary's jurisdiction under 15 CFR Part 960:

Delaware, United States

2. Identity of any subsidiaries and affiliates playing a role in the operation of the System, including a brief description of that role:

N/A

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Part D: Description of System

Name of System: LizzieSat 1-3

1. Brief mission description:

LS-1, LS-2, and LS-3 will each contain a VIS-SWIR imager and a CMOS High-Definition imager to collect remote Earth sensing data for commercial sale. Non-Earth imaging (NEI) is not planned for these sensors.

LS-1 will additionally contain a visible spectrum camera to collect remote Earth sensing data for commercial sale. Non-Earth Imaging (NEI) is not planned for this sensor.

2. Remote Sensing Instrument(s) parameters (for each sensor):

Sensor type	Imaging/frame rate (FPS)	Spatial resolution (m)	Spectral range (nm)	Collection volume (km/unit of time)
PAN	5	39.78	300 – 1,000	$3.92 * 10^4 \text{ km}^2/\text{min}$
SWIR	10 to 60	102	600 – 1,700	$6.27 * 10^4 \times 5.02 * 10^4 \text{ km}^2/\text{min}$
PAN	60	45.9	300 – 1,100	$4.24 * 10^4 \times 2.38 * 10^4 \text{ km}^2/\text{min}$

a. Ability of the remote sensing instrument to slew, point, or digitally look off-axis from the x, y, and z axes of travel:

N/A

3. If any entity or individual other than the Licensee will own, control, or manage any *remote sensing instrument* in the System:

Name	Address	Number	Relationship
N/A	N/A	N/A	N/A

4. Spacecraft Upon Which the Remote Sensing Instrument(s) is (are) carried

a. Description:

LizzieSat-1 through LizzieSat-3 are Low Earth Orbit (LEO) micro-satellites that focus on rapid, cost-effective development and testing of innovative spacecraft technologies for multiple customers. They combine static component testing and LEO spacecraft development and deployment to provide full life cycle services to small to medium companies whether start up or mature IR&D. Sidus Space will operate all imagers included in this application.

b. Estimated launch date(s) in calendar quarter:

LS-1: Q1 2024, LS-2, LS-3: Q4 2024

c. Number of spacecraft (system total and maximum in-orbit at one time):

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Total number is: 3
 Maximum in orbit is: 3

- d. For each spacecraft, provide the following (or if an entire constellation will have substantially the same orbital characteristics, provide these values for the entire constellation and note whether or not all spacecraft will be evenly spaced):

Spacecraft or Constellation Characteristics			
Altitude (km)	Inclination (°)	Orbital Period (min)	Longitude (°)
510 – 590	97 – 98	94 – 97	0 - evenly spaced
Eccentricity	Argument of perigee (°)	Propulsion	
0	0	No	

- e. Ability of the spacecraft to slew, point, or digitally look off-axis from the x, y, and z axes of travel:
 LizzieSat-1 through LizzieSat-3 will each have the capability to slew up to 180° and point off axis up to 50°.

5. If any entity or individual other than the Licensee will own, control, or manage any *spacecraft* in the System

Name	Address	Number	Relationship	Citizenship Status
N/A	N/A	N/A	N/A	N/A

6. Ground Components: See Ground Station Appendix

7. If any entity or individual other than the Licensee will own, control, or manage any *mission control center(s)* with the ability to operate the System

Name	Address	Number	Relationship
N/A	N/A	N/A	N/A

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Ground Station Appendix

NOAA must approve any Ground Station prior to the commencement of operations.

Type	Location	Coordinates
MCC	Sidus Space 150 N Sykes Creek Pkwy, Suite 200 Merritt Island, FL 32953	
Domestic		
RGT	ATLAS 75GV+2JR Utqiagvik, AK 99723	71.28 N 156.81 W
RGT	RBC Signals Deadhorse Alaska: 1234 Drill Site 12 Prudhoe Bay, Alaska, 99734	70.21 N 148.41 W
Foreign		
RGT	KSAT NEMEA Teleport, Satellite Communications Center 20500 Nemea Korinthias, Athens, Greece	37.5 N 22.4 E
RGT	KSAT Awarua Satellite Ground Station, 781 Colyer Road Awarua, Invercargill, NEW ZEALAND	46.5 S 168.4 E
RGT	KSAT SANSA, Farm No 502JQ Hartebeesthoek, District Krugersdorp, South Africa	25.8 S 27.7 E
RGT	KSAT Calle Francia 9, Poligono Industrial La Nava III, 13500 Puertollano (Ciudad Real), Spain	38.7 N 4.2 W
RGT	KSAT CSGSP, Ruta 9 Norte S/N, Km 29 Cabo Negro, Punta Arenas, Chile	53 S 70 W
RGT	KSAT Mauritius Telecom Ltd., Mauritius Telecom Landing Station Sainte Marie Baie Jacotet, Mauritius	20.5 S 57.4 E
RGT	KSAT Vei 700, Platåberget 9170 Longyearbyen, Norway	78.231 N 15.4111 E
RGT	KSAT Troll Research Station Jutulsessen, Queen Maud Land, Antarctica	72.002 S 2.525 E
RGT	ATLAS CR38+M9 Perth PH2 7TB United Kingdom	56.41 N 3.19 W

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RGT	ATLAS Lot 32 Depot Hill Rd Nangetty WA 6522 Australia	29.01 S 115.34 E
RGT	ATLAS W9V2+GRW Dubai United Arab Emirates	24.94 N 55.35 E
RGT	LEAF SPACE 112 Cotton Road Peterborough SA 5422, Australia	32.96 S 138.85 E
RGT	LEAF SPACE Depot Hill Road West Casuarinas WA 6522, Australia	29.01 S 115.34 E
RGT	LEAF SPACE Azercosmos Open Joint Stock Company, 72 M5 Uzeyir Hajibeyli Street, AZ1000 Baku, Azerbaijan	40.47 N 49.49 E
RGT	LEAF SPACE Teleport “Plana”, ul. “Stambolova reka” 1475, Plana, Bulgaria	42.48 N 23.45 E
RGT	LEAF SPACE Deimos Castilla La Mancha S.L.U Calle Francia, 9 Pol. Ind. La Nava III 13500 Puertollano – Ciudad Real - Spain	38.67 N 4.162 W
RGT	LEAF SPACE Borealis Data Center, Falkagerdi 1 540 Blonduos, Iceland	65.65 N 20.246 W
RGT	LEAF SPACE Borealis Data Center, Falkagerdi 1 540 Blonduos, Iceland	65.65 N 20.245 W
RGT	LEAF SPACE Via Bolzano 1/E 20871 Vimercate (MB), Italy	45.59 N 9.36 E
RGT	LEAF SPACE 282 Sangdae-ri, Hallim-eup Jeju, Republic of Korea	33.39 N 126.32 E
RGT	LEAF SPACE SupremeSAT (PVT) LTD, Kandy Industrial Park BOI Zone, Kengalle, Pallekele, Kandy Teleport, Sri Lanka	7.27 N 80.72 E
RGT	LEAF SPACE Dr Lucien de Chazal Lane, John Kennedy Avenue Floreale, Curepipe, 74107, Mauritius	20.14 S 57.69 E
RGT	LEAF SPACE 781 Colyer Road Awarua, Invercargil, New Zealand	46.528 S 168.380 E
RGT	LEAF SPACE	46.533 S

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	781 Colyer Road Awarua, Invercargil, New Zealand	168.385 E
RGT	LEAF SPACE Santa Maria Ground Station, Rua Assomada - Monte das Flores, 9580-471 Vila do Porto, Santa Maria, Azores, Portugal	36.998 N 25.137 W
RGT	LEAF SPACE Santa Maria Ground Station, Rua Assomada - Monte das Flores, 9580-471 Vila do Porto, Santa Maria, Azores, Portugal	36.998 N 25.137 W
RGT	LEAF SPACE Shetland Space Centre Limited, Balta sound Airfield ZE2 9UT Balta sound - Unst, Shetland, UK	60.748 N 0.858 W
RGT	LEAF SPACE Portion 293, 369-JR Boschkop Rd Pretoria, 0040, Sudafrica	25.860 S 28.454 E

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Administrative Record Appendix

	<u>Date</u>	<u>Description of Administrative Action Taken</u>
1.	12/19/23	Issuance of License

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