

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 ACME AtronOmatic LLC d/b/a MyRadar to operate TRSI2, a private remote-sensing space system comprised of 2 satellite with the following capabilities and described completely in Part D of this license:

Multispectral (MSI) (380 - 740 nm) at 1185 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
Phone: 301-427-2560

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

Part A: Determination and License Grant

The Assistant Administrator (AA) of the National Environmental Satellite, Data, and Information Service within 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 ACME AtronOmatic LLC d/b/a MyRadar, 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, the AA hereby grants ACME AtronOmatic LLC d/b/a MyRadar (hereinafter Licensee), as described in Part C of this license, this license to operate TRSI2 (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.

The AA makes this determination, and grants this license, under the authority delegated to him by the Secretary of Commerce through the Under Secretary of Commerce for Oceans and Atmosphere and Administrator of NOAA. 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:

Stephen M. Volz Ph. D.
Assistant Administrator for
Satellite and Information Services

Date

PROPRIETARY INFORMATION

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

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.

PROPRIETARY INFORMATION

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

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:

ACME AtronOmatic LLC d/b/a MyRadar

b. Location and address of Licensee:

111 W Jefferson Street #200
Orlando, FL 32801
407-242-3438

c. Licensee contact information:

ACME AtronOmatic LLC
111 W Jefferson Street #200
Orlando, FL 32801
407-242-3438

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

Andrew Green
111 W Jefferson Street #200
Orlando, FL 32801
407-242-3438
321-230-8099
andy@acmeaom.com

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:

Florida, 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

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

Part D: Description of System

Name of System: TRSI2

1. Brief mission description:

Validate hardware, platform, processes, and methods for collecting low-resolution imagery and the transmission of data to computer servers through ground stations. TRSI2 will use 2 satellites to image the Earth at 1185 m resolution and will not conduct non-Earth (NEI) Imaging.

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)
MSI	0.005 Hz	1185	380-740	6.9x10 ⁶ km ² /hr

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

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:

The chassis is a .5 U Pico Satellite

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

December 2020, Q2 2021 (TBD)

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

Maximum on orbit is: 2

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 (°)
500-550	97.5-97.7	95 minutes	TBD
Eccentricity	Argument of perigee (°)	Propulsion	
0	TBD	No	

PROPRIETARY INFORMATION

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

- e. Ability of the spacecraft to slew, point, or digitally look off-axis from the x, y, and z axes of travel:

N/A

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

8. Information Applicable to Multi-Spectral Imaging (MSI) and/or Hyper-Spectral Imaging (HSI).

Number of spectral bands	Individual spectral bandwidths
Red	~570-670 nm
Green	~470-600 nm
Blue	~400-530 nm

9. Information Applicable to Light Detection and Ranging (LIDAR) if used for remote sensing.

Type	Laser Wavelength (nm) / Pulse Frequency (MHz)	Laser pulse width (FWHM)	Spectral linewidth (FWHM)	Z/Elevation accuracy (m)
N/A	N/A	N/A	N/A	N/A

10. Information Applicable to Synthetic Aperture Radar (SAR).

Azimuth resolution	Range resolution	Signal to Noise Ratio	Polarization
N/A	N/A	N/A	N/A

PROPRIETARY INFORMATION

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

Ground Station Appendix

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

Type	Location	Coordinates
MCC	ACME AtronOmatic LLC 111 W Jefferson Street #200 Orlando, FL 32801	
Domestic		
RGT	ACME AtronOmatic LLC 111 W Jefferson Street #200 Orlando, FL 32801	
RGT	ACME AtronOmatic LLC 213 SW Ash Street #201 Portland, OR 97204	
Foreign		
RGT	ACME AtronOmatic LLC Im-Thal-Windeck 36 51570 Windeck Germany	

PROPRIETARY INFORMATION

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

Administrative Record Appendix

	<u>Date</u>	<u>Description of Administrative Action Taken</u>
1.	8/25/20	Issuance of License