

EARTH REMOTE SENSING SPACECRAFT

SMOTR-V

Obtaining information to solve a wide range of industrial, socio-economic, natural resources and environmental tasks

Manufacturer

Gazprom AIT Facility

Operational lifetime

10 years

SMOTR-V is a cutting-edge Earth remote sensing satellite with a combined payload to solve a wide range of industrial and environmental tasks: highly detailed monitoring of main gas pipelines' areas, detection of greenhouse gas emissions (methane leaks), monitoring of construction sites, mapping and surveillance of license areas and other infrastructure facilities.



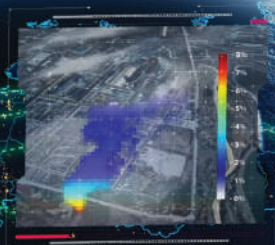
Ultra-high resolution optical and electronic payloads (OEP)

allow acquisition of multispectral and panchromatic images of the Earth's surface, among other things, solving the tasks of ensuring safety of industrial facilities and monitoring the environmental situation around them throughout the Russian Federation territory, including hard-to-reach regions.

Satellite gas analyzer provides detection of sources of methane emissions into the atmosphere and determination of their intensity by acquisition of the Earth's surface images in the infrared range with high spectral resolution and special processing of the acquired images.

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ЦЕНТР
ОБРАБОТКИ ИНФОРМАЦИИ



№ выброса метана	1596
Время регистрации	2024/06/30 12:15 МСК
Расход метана	450 кг/ч
Широта	53,7948° с.ш.
Долгота	124,6095° в.д.
Скорость ветра	3,5 м/с
Азимут ветра	110°
КА	СМОТР-В

Satellite orbit	Sun-synchronous
Orbit altitude	500 km
OEP spatial resolution	0,5 m
OEP swath	12 km
Gas analyzer spatial resolution	50 m
Gas analyzerswath	10 km
Minimal detectable methane source intensity	up to 350 cub.m/h

- 1 Optical and electronic payloads for multispectral and panchromatic imaging
- 2 Satellite gas analyzer



In the future, it is planned to create the SMOTR orbital satellite constellation, with the help of which it will be possible to carry out prompt and highly detailed monitoring of the entire Earth's surface, as well as to discover sources of methane and other greenhouse gas emissions. The information obtained through the constellation will make it possible to assess objectively the contribution of multiple countries and the total volume of greenhouse gas emissions.



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