CONSTELLATION

GEN-3

Powering the next generation of space-based intelligence

Passenger vehicles in an image representing Gen-3's expected quality.

Gain superior space-based intelligence faster than ever before. With accelerated communications, very high-resolution sensors and agile attitude control, BlackSky's Gen-3 satellites and systems deliver detailed, actionable information at industry-leading speed. Low-latency delivery ensures timely, reliable data for AI-enabled object detection and classification so you can make decisions in the moment.

Built on a proven architecture, Gen-3 satellites exceed BlackSky's highest standards for design life and performance. Gen-3 systems provide the same high degree of reliability, automation and uptime BlackSky delivers today, making it an invaluable resource in predicting and addressing matters of national security and economic uncertainty.

Reliable insight for rapid decision-making

Building upon BlackSky's speed of intelligence delivery, Gen-3 imagery and analytics provide crucial insight for timely, confident action when the stakes are high. Identify and understand patterns of activity as they happen so you can address emerging threats before they become active conflicts.

With Gen-3:

- Acquire new data within hours to analyze pattern of life, track vehicle and ship custody or understand your adversary's movements.
- Collect very high resolution (VHR) visible imagery at native 35 cm resolution for a clearer picture of the ground, delivered at industry leading speeds.
- Automatically detect and classify objects like military and civilian vehicles to characterize the nature of change in an area.

- Monitor sites all day and night. Use shortwave infrared imagery (SWIR) to improve intelligence in low-light and degraded conditions like clouds, smoke or haze.
- Receive data quickly with improved latency and increased collection efficiency.
- Flexibly task Gen-3 satellites in the systems you use today, using our secure web portal or API connection.

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GEN-3 SPECIFICATIONS

An efficient, high-performance constellation to serve high-stakes decisions.

	Gen-3 (Commercial availability in 2025)
Tasking to collection	< 10 hours[1]
Collection to delivery	< 90 minutes[1]
Automated object detection[2]	Vehicles: Truck, semi-truck, pickup, jeep, van, private car, bus, construction vehicle Vessels: Small vessel, tug, container, warship, patrol, submarine, merchant vessel, other
NIIRS image quality class	Visible: NIIRS 5+ Shortwave infrared: NIIRS 3+
Best ground sample distance (GSD)	Visible: 35 cm Shortwave infrared: 1.2 m
Minimum scene size	Visible: 18 km² (3.7 km x 4.9 km) Shortwave infrared: 1.8 km² (1.2 km x 1.5 km)
Spectral bands	RGB, panchromatic, shortwave infrared
Geolocation accuracy	< 20 m CE90 < 10 m CE90 in Australia, United States
Orbital altitude	450 km low-earth orbit (LEO)
Orbital inclination	Mid-inclined orbit (MIO) Capable of sun-synchronous orbit (SSO)
Communications	X-band primary downlink S-band primary uplink UHF backup uplink and downlink
Design life	5+ years

[1] Timelines are subject to change and vary by customer and architecture.
[2] Coming soon: military vehicle types, aircraft types, buildings. Additional detection capabilities available with Gen-2 collections.
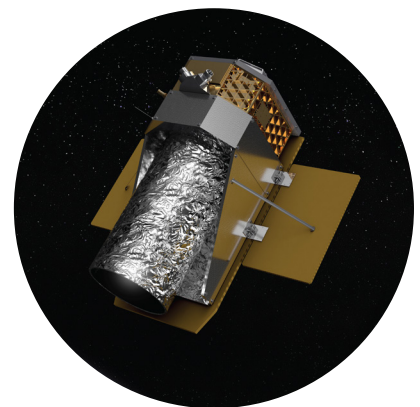

Detect and identify vehicles such as trucks and service vehicles. Simulated image.

Very high-resolution imagery supports detailed analysis of vessels at port. Simulated image.
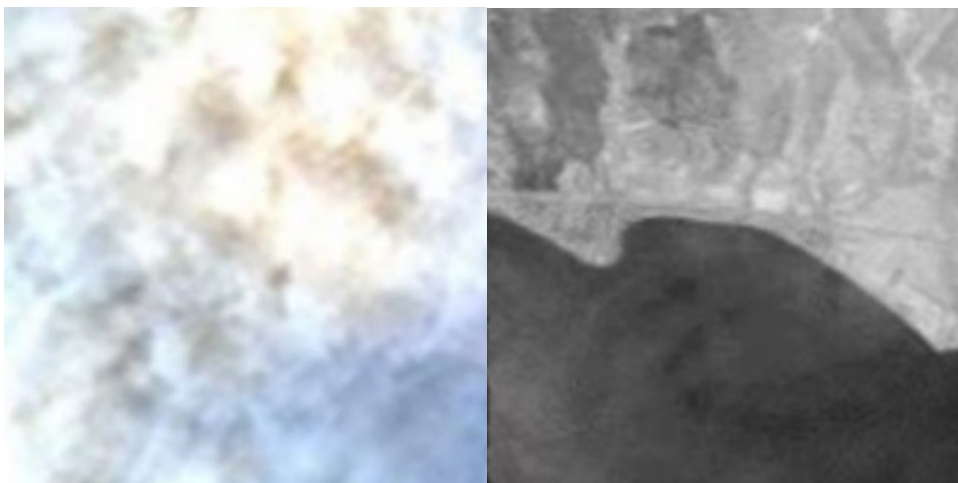
The shortwave infrared (SWIR) band improves imaging through haze, smoke and low-light conditions. Simulated comparison of visible (left) and SWIR (right) imagery.

Gen-3 satellites capture very high resolution imagery with hourly revisit and low-latency delivery.

To learn more about how BlackSky can help your organization use real-time intelligence from space, contact sales@blacksky.com or visit www.blacksky.com.

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