



# Respond to Disaster with ondemand Satellite Imagery



# Our world has changed: BlackSky is the new way to see our world

Emerging technologies for disaster management



Satellite Imagery **Geospatial SW** 

**Desk Top Mapping** 

STATIC

Mobile / GPS

Web Mapping

Location-based Intelligence

2010

DYNAMIC



**Dynamic Monitoring** from Space

Actionable Intelligence On-Demand



**Real-time Global** Monitoring

Real-time Intelligence

2025+





2000





**Q** Palantir





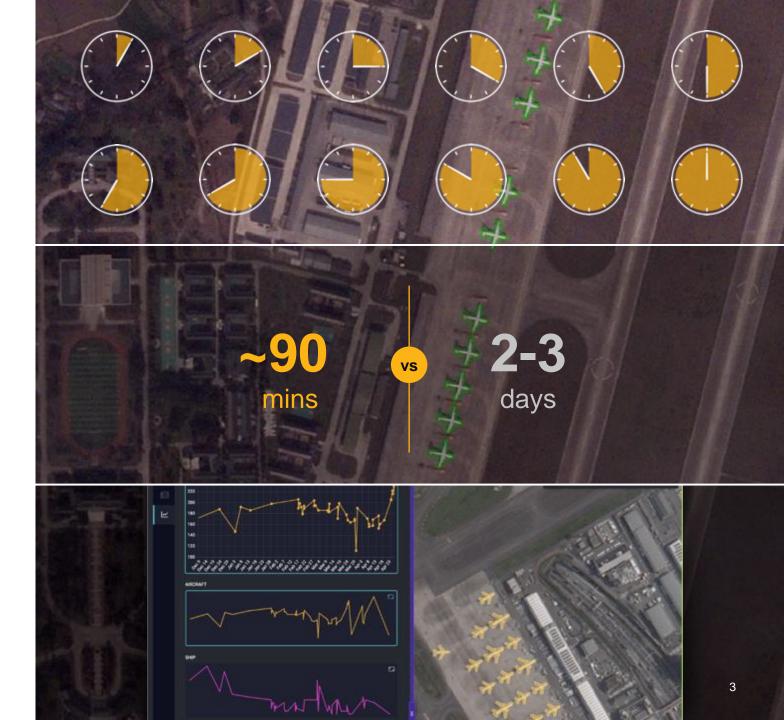


esri

# Dynamic hourly disaster site monitoring

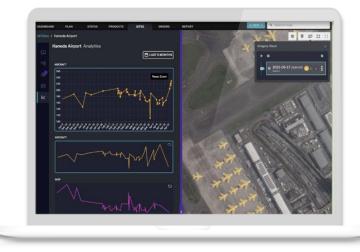
BlackSky can reliably see and understand the Disaster affected sites what others can't

16 Satellites	On orbit
2,000+ images	Daily Delivery Rate
30 – 90 minutes	Delivery Timeline
15x daily/hourly	Revisit Rate
99.9%	Uptime & Availability
BLACK SKY © BlackSky 2022. All rights reserved.	

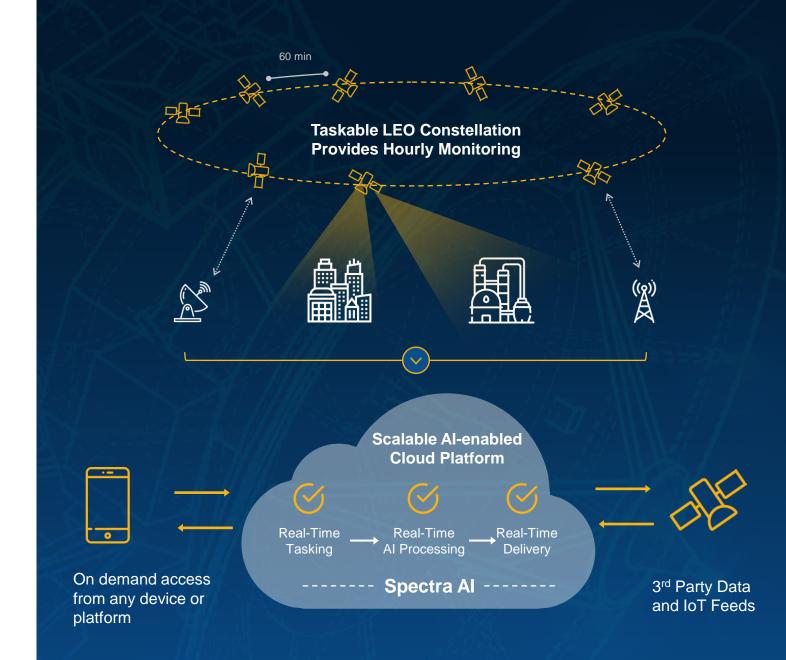


# Images and analytics in under 90 minutes

Powered by BlackSky's Spectra platform



Dynamic monitoring of the most important strategic and economic assets in the world

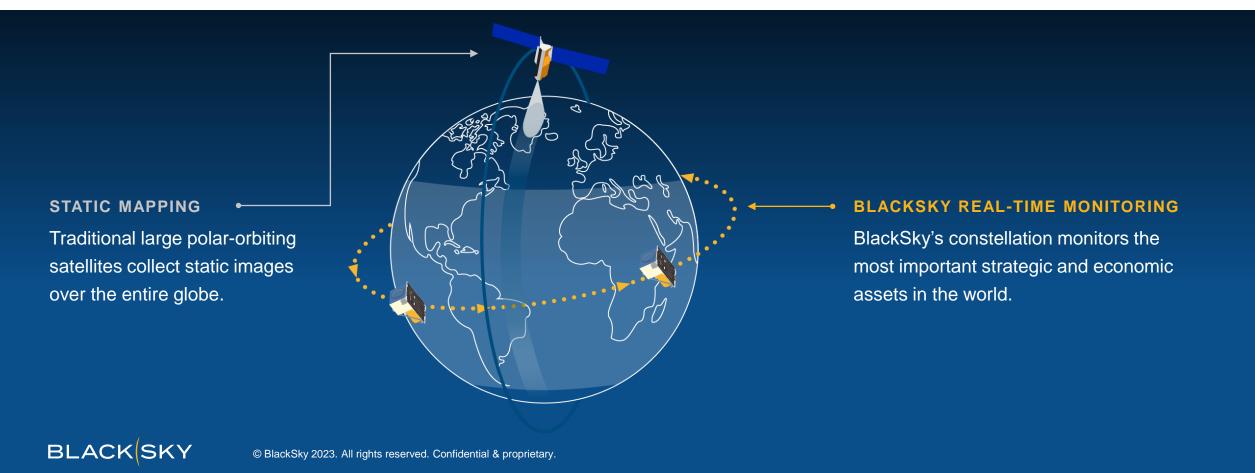


# A smarter approach to space.

**High-frequency monitoring** of the most important strategic locations, economic assets, and events in the world.

Actionable intelligence from capture to delivery in under 90 minutes, up to 15 times a day.

**Easy access platform** for all users, optimized for agility; no geospatial data expertise required.



# BLACK SKY

# See, understand and act on events, in real-time.

→ High-frequency:

Hourly revisit of the most important locations and assets in the world

→) On demand:

Tasking to delivery in under 90 mins to networked & remote secure tactical terminals



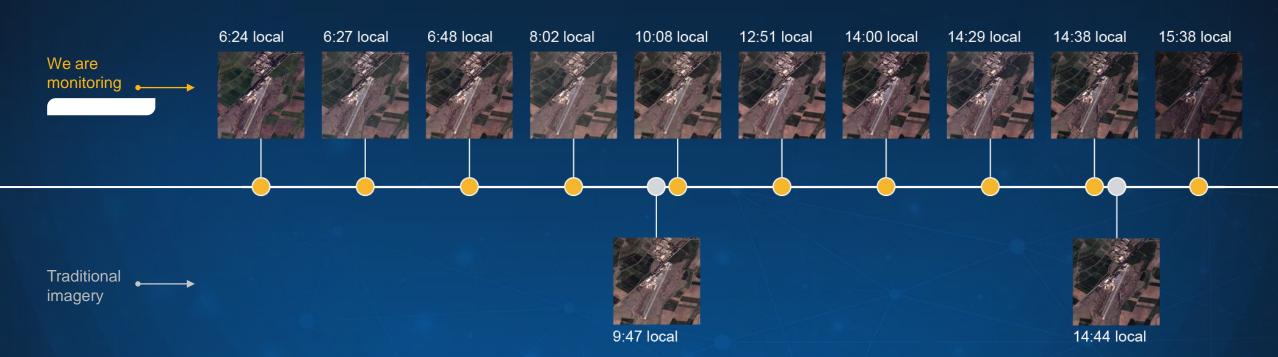
**Uncontested access:** 

For your defined areas of interest



Al-enabled:

Actionable intelligence delivered on demand via secure web domain





Increase speed to delivery



Get imagery where others don't



Monitor areas for recovery





# BlackSky's Product Offering

**POWERED BY SPECTRA AI** 

**OFFERING** 

**DESCRIPTION** 

**SERVICES** 

**PRODUCTS** 

#### **Dynamic Tasking**

Access to a distributed, global sensor network optionally coupled with automated analytics

- Imagery on Demand
- Detect on Demand (Rapid prototyping/roll-out)
- Tip & Cue
- 1m imagery
- Object Vector Layers
- Moving Target Indicators (to measure activity at ports, airports and construction sites)
- DSM/DEMs

#### **Dynamic Monitoring**

Maintain awareness of global activity in real-time and receive alerts when critical changes occur

- Event Monitoring
- Site Monitoring
- Broad Area Search
- Change Detection
- Economic Indicators
- Construction Reports
- Regional Activity Reports (Air/Sea/etc)
- Broad Area Change Layers

#### **Dynamic Data Services**

Access BlackSky's deep archive of imagery, insights, and historical events

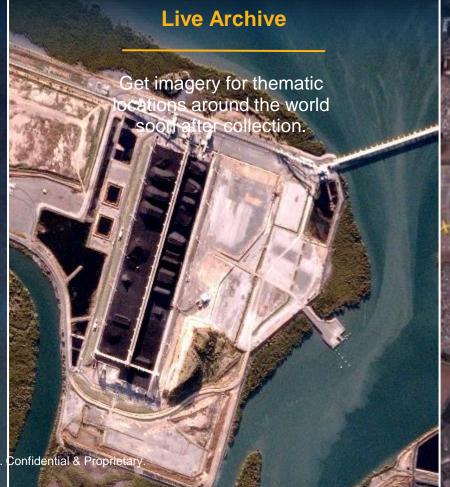
- Archive Access
- Active Archive
- Al Accelerator
- Historical Imagery
- Annotated Imagery Bundles
- Al Accelerator (Beta)

**APIs** 

# **Dynamic Data Services:** Leverage historical data for key locations

Build better Al models, gain context on key sites

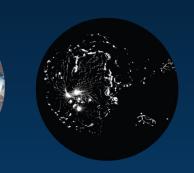






# **BlackSky On-demand: Products**

## **Single-frame imagery**

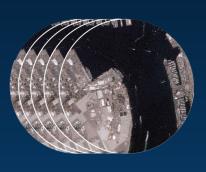


Daytime Nighttime

### **Multi-frame imagery**



Area 2x1



Burst



2-frame stereo



**Analytics** 



Detect

**Single-frame short-wave infrared** (coming soon)



#### 7 Dead In Sikkim Avalanche: Here Is A List Of Deadly Snowslides That Hit India In Recent Years

A deadly avalanche on Tuesday killed seven tourists in Sikkim's Nathu La mountain pass. Here's a list of snowslides that have hit India in recent years taking the lives of many.

By: ABP News Bureau | Updated at : 05 Apr 2023 12:37 PM (IST)



# **USE CASES:** Respond to Crisis in real-time





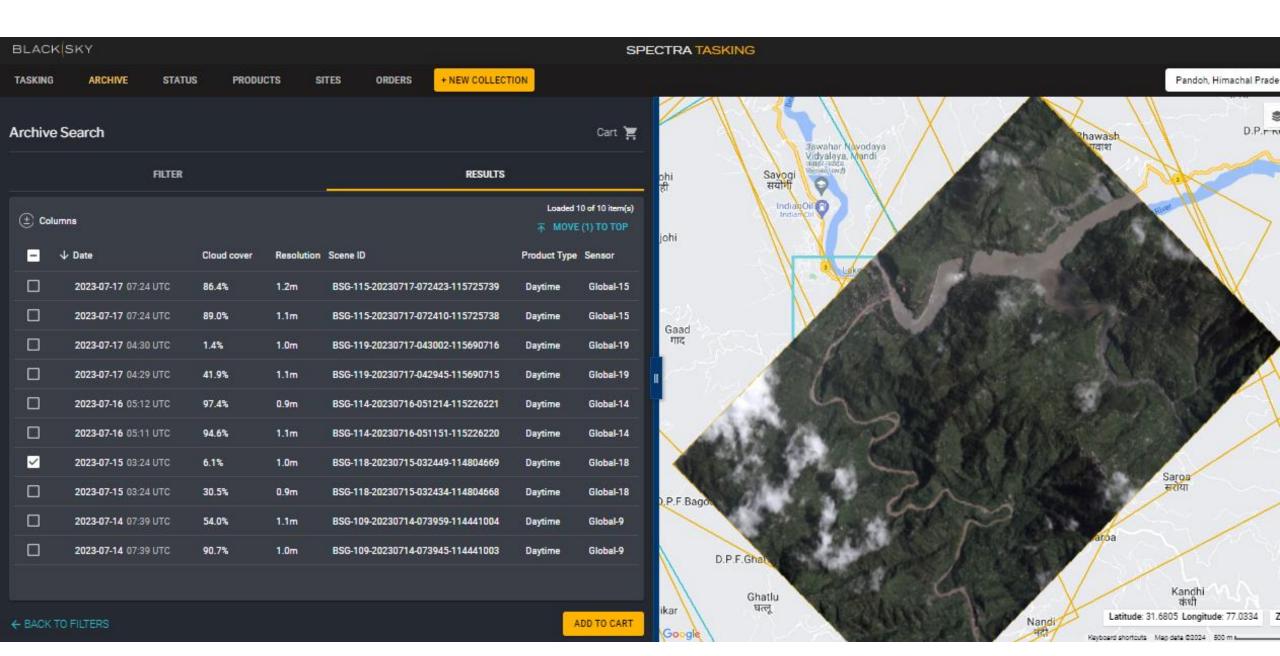
#### Himachal Pradesh Flash Flood



Order Placed At 17-07-2023 08:30 AM (IST)

Acquired On 17-07-2023 10:00 AM (IST)

Delivered in 1:30 Hour From Time Of Order Placement



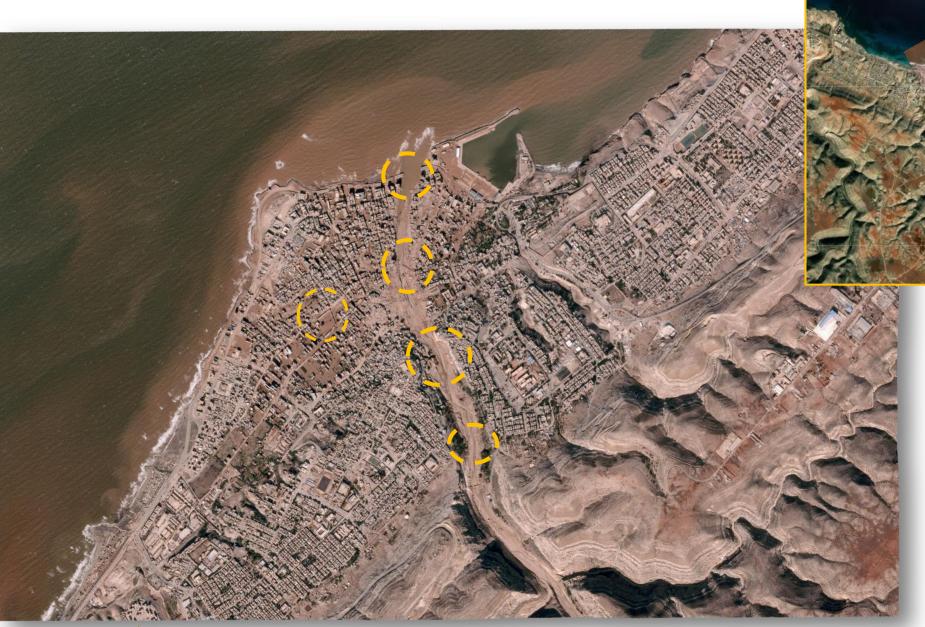


#### Himachal Pradesh Flash Flood



Before After

Darnah, Libya Flash Flood



Order Placed: 13-09-2023 07:20 AM

(IST)

**Imagery Acquisition: 13-09-2023** 

08:52 AM (IST)

Delivered in 1:32 hours from time of

order placement

**Total Acquisition: 4** 

Lat / Long:

32.759930555555556,22.641388611

111118







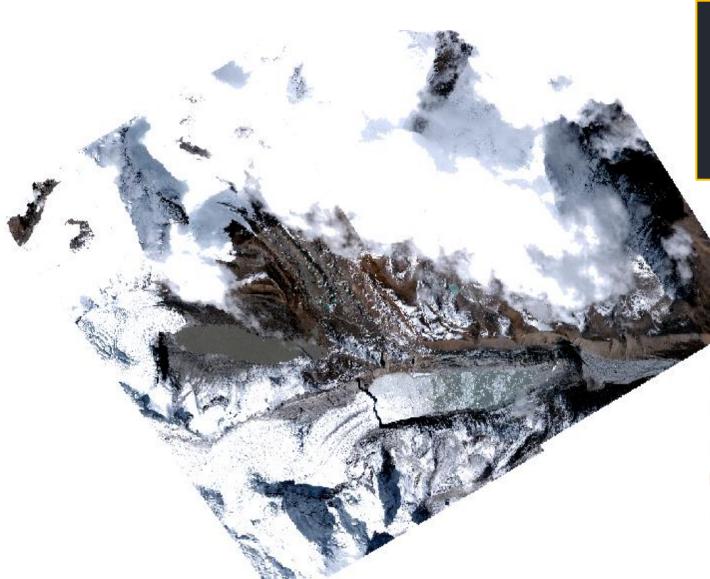








#### Sikkim Cloudburst



Area: 37.8km2
Order: Eval\_Satpalda\_Archive\_...

Sensor angle: 25.2° Cloud cover: 13%

LESS 🗸

Sensor: Global-5 Sun elevation: 38.3° Satellite elevation: 62.0° Plan item: BSG-105-20231005-08...

License Agreement. blacksky com internal

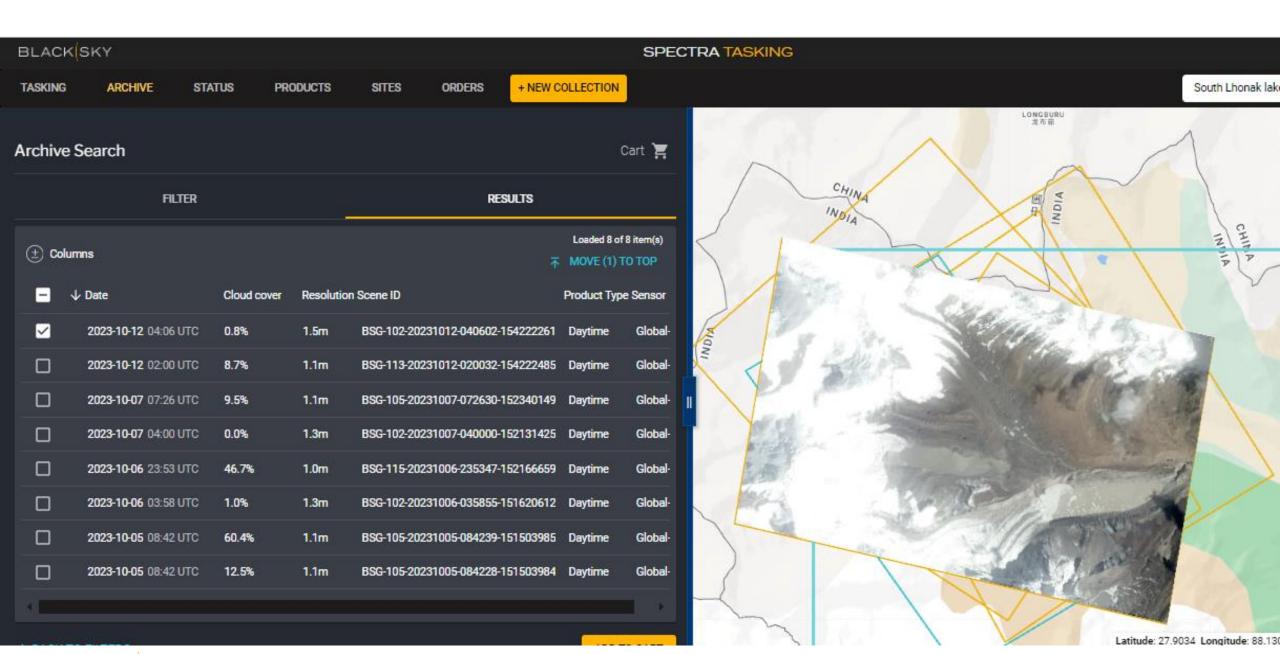
Acquired on: 2023-10-05 08:42:28 UTC

Resolution: 1.1m Sun azimuth: 237.6° Satellite azimuth: 303.6°

Imagery Order Placed: 05-10-2023 12:30 PM (IST)
Imagery Acquisition: 05-10-2023 02:15 PM (IST)

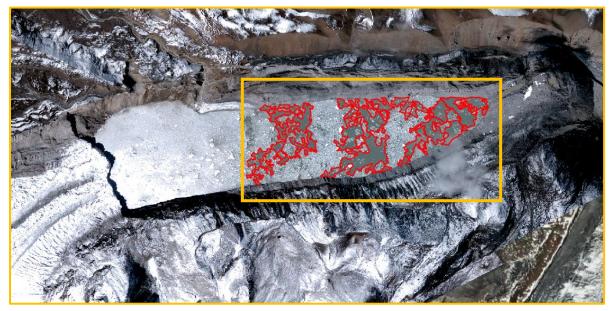
Delivered within 1.45 hours from the time of order placement

Lat / Long: 27.924426901820944, 88.21474739997905



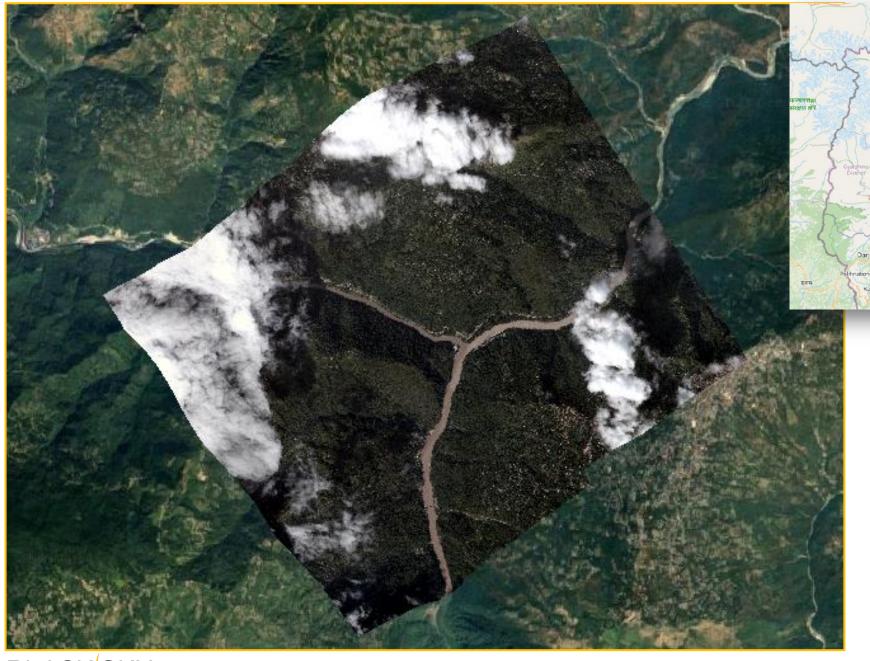


Pre-Cloudburst (03-07-2022). Lake completely filled with Water



Post-Cloudburst (05-10-2023). Lake damaged after cloudburst/Flash flood





Product type: Area Coverage Frames: 2 + Generated Mosaic

Vendor: BLACK SKY Georeferenced: Ves Orthorectified: Ves Co-registration: Ves

Area: 108.1km2

Plan item: Eval\_SATPALDA\_Singta... Order: Eval\_SATPALDA\_Singta...

License Agreement: blacksky-com-internal

#### MOSAIC - DATA

BSG-AREA-105-20231006-080430-Product ID: 151986600

Sensor: Global-5

Acquired on: 2023-10-06 08:04:30 UTC

Resolution: 1.1m Cloud cover: 27%



# Flood: Fitzroy Crossing





Product type: Daytime







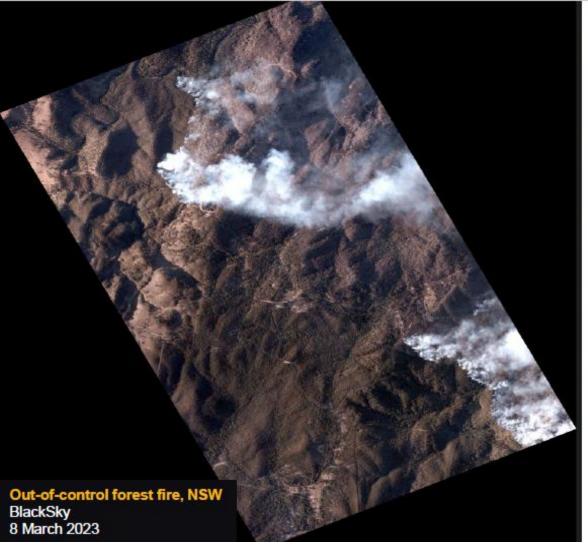
## Flood: New South Wales

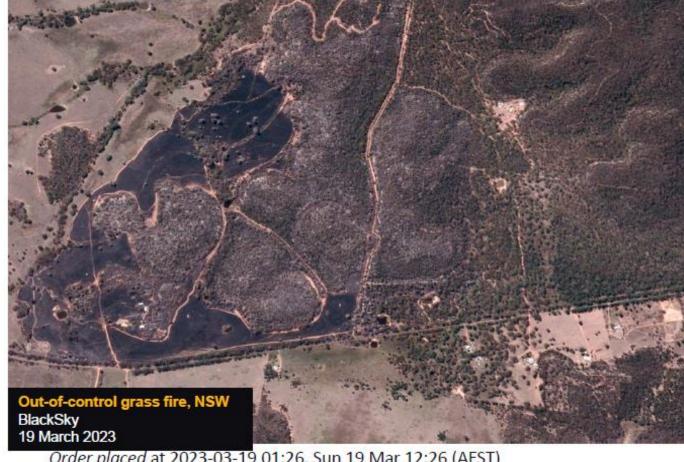


#### Flood: New South Wales



#### Forest / Bush fire: NSW



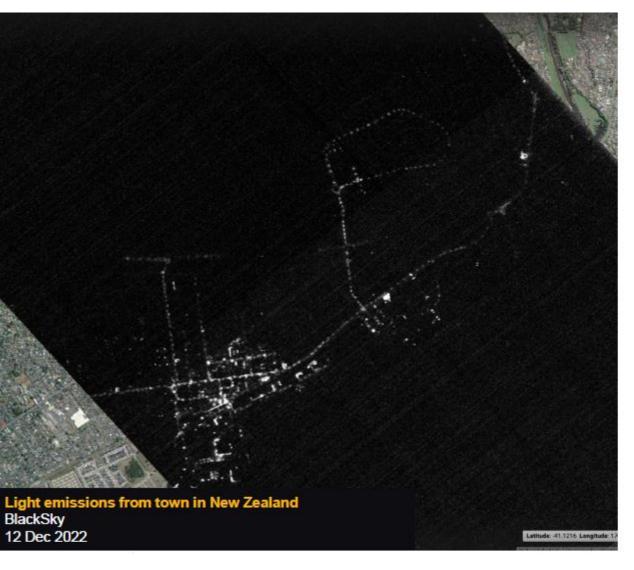


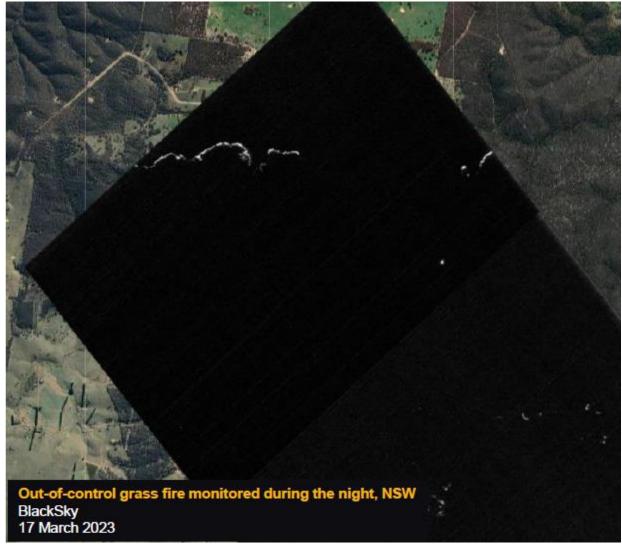
Order placed at 2023-03-19 01:26, Sun 19 Mar 12:26 (AEST)
Acquired on 2023-03-19 03:05:12 UTC, Sun, 19 Mar 14:05 (AEST)

Delivered in 1:41 hour from time of order placement.

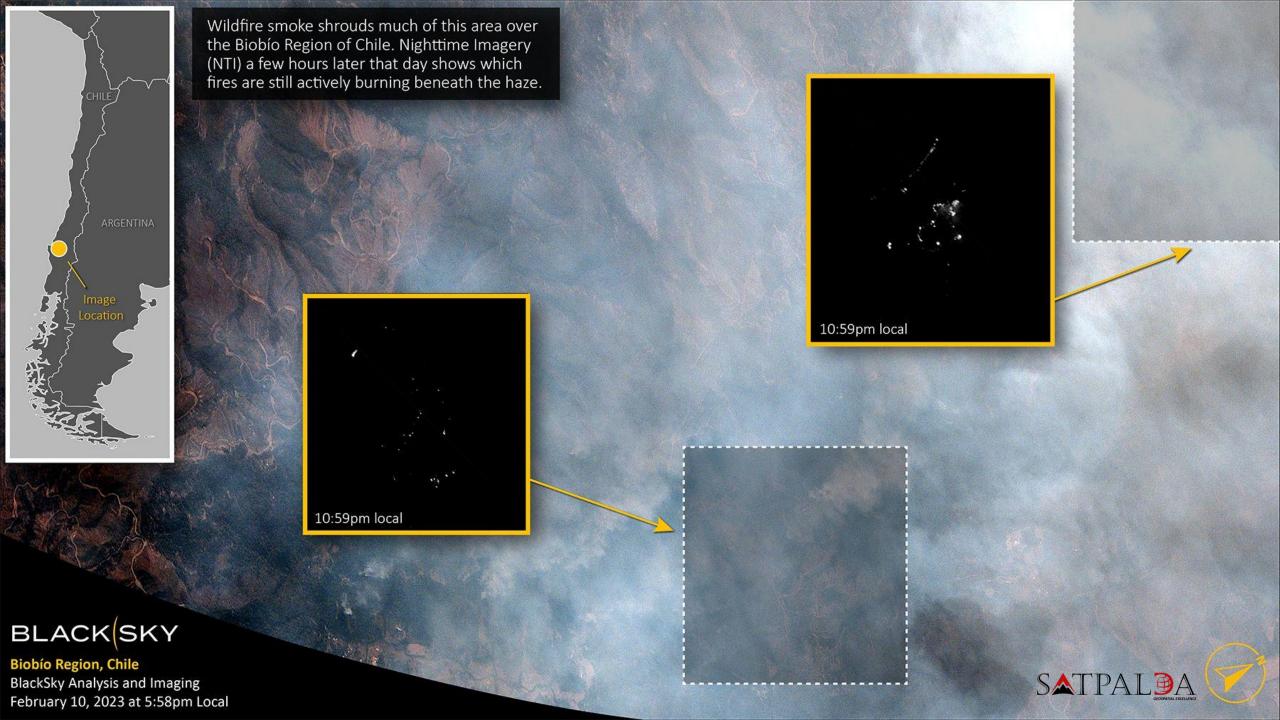


# Forest / Bush fire : NSW (Night-time Vision)





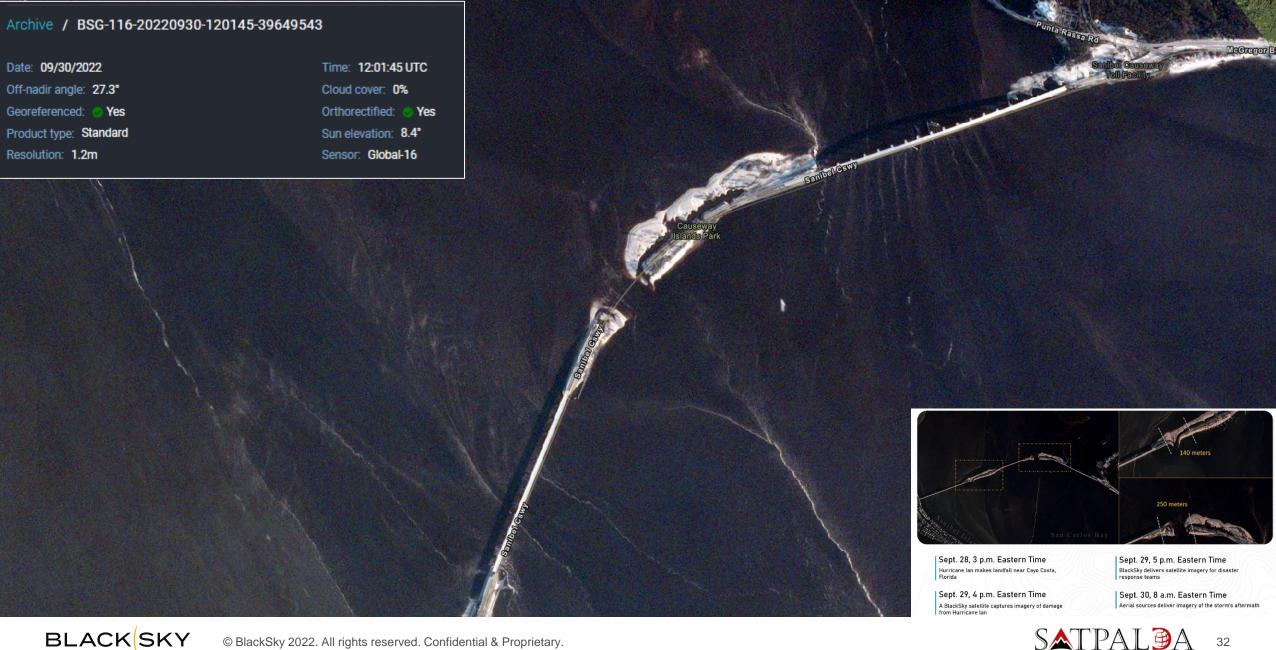




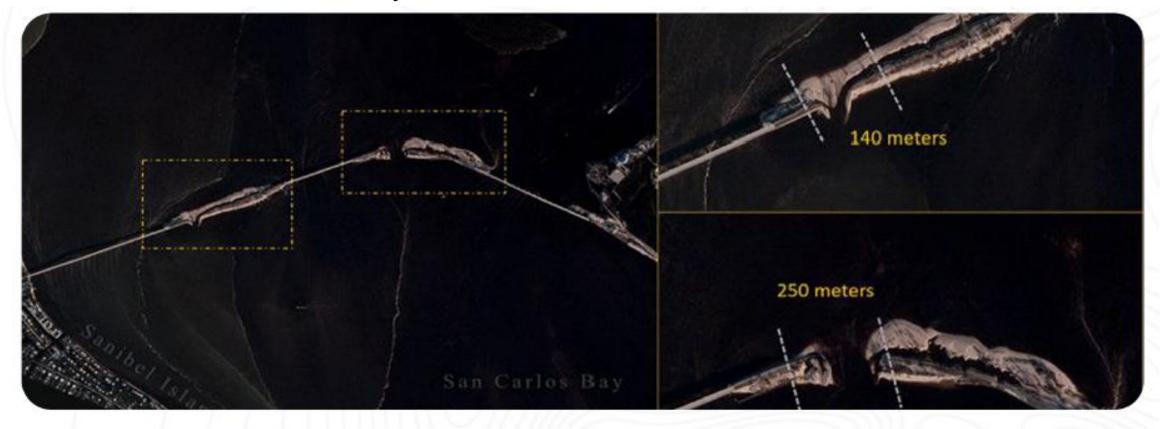
# Hurricane: Sanibel causeway, Florida



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#### Hurricane: Sanibel causeway, Florida



Sept. 28, 3 p.m. Eastern Time

Hurricane Ian makes landfall near Cayo Costa, Florida

Sept. 29, 4 p.m. Eastern Time

A BlackSky satellite captures imagery of damage from Hurricane lan

Sept. 29, 5 p.m. Eastern Time

BlackSky delivers satellite imagery for disaster response teams

Sept. 30, 8 a.m. Eastern Time

Aerial sources deliver imagery of the storm's aftermath





# **Earthquake**: Turkey





## **Earthquake**: Turkey







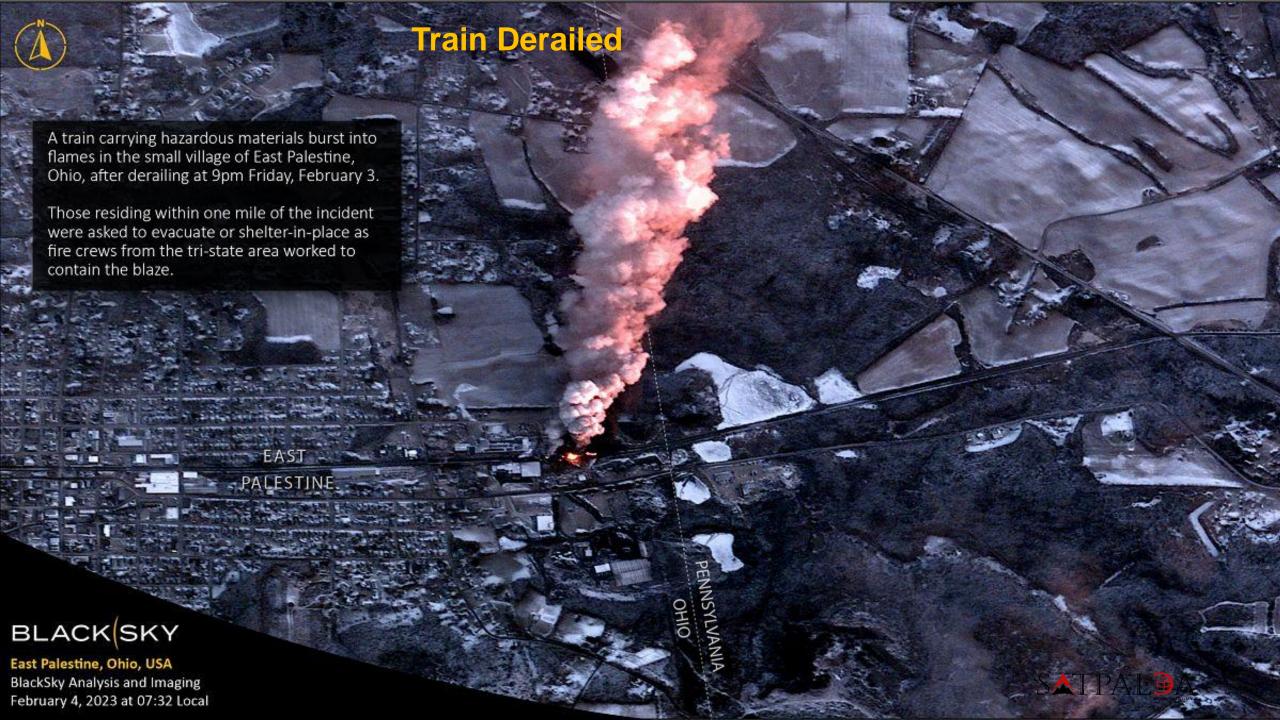
# Mining Disaster, Ecological Spill: Jagersfontein tailing dam (Before disaster)

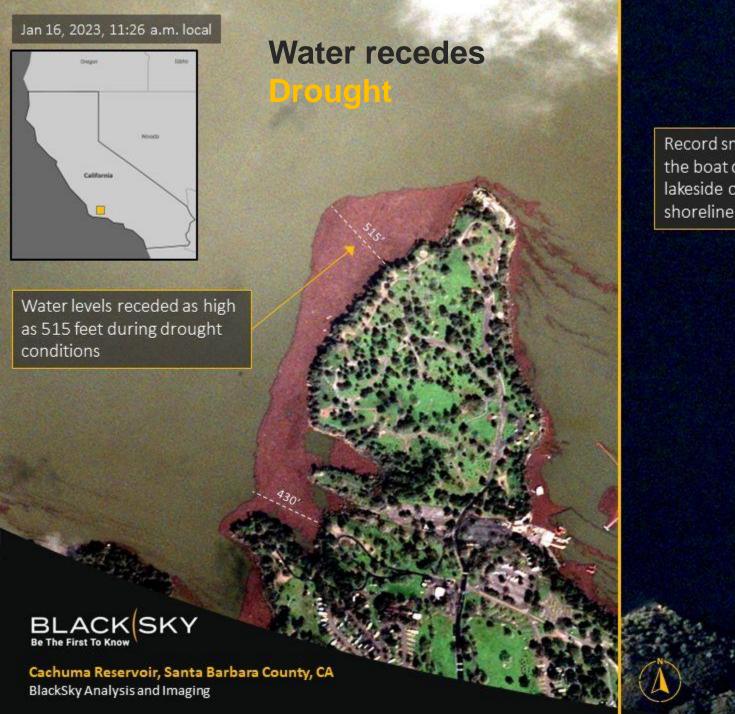


# Mining Disaster, Ecological Spill: Jagersfontein tailing dam (After disaster)



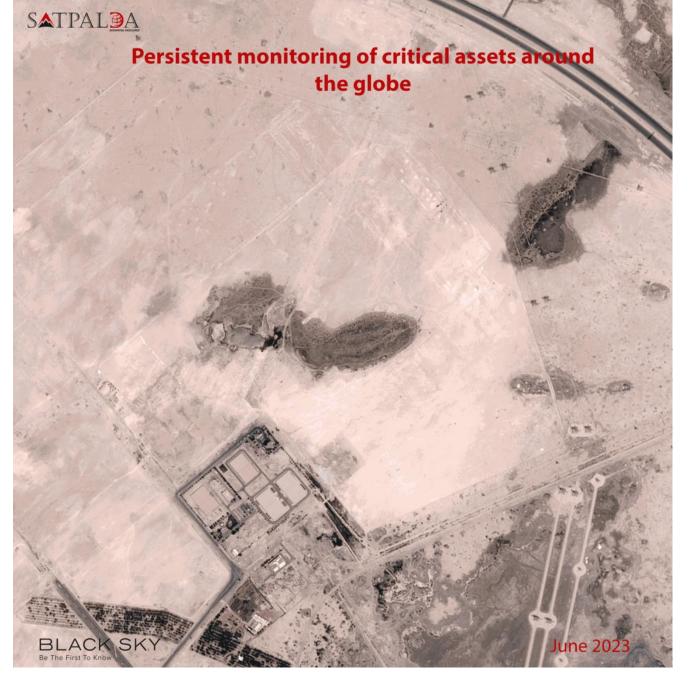




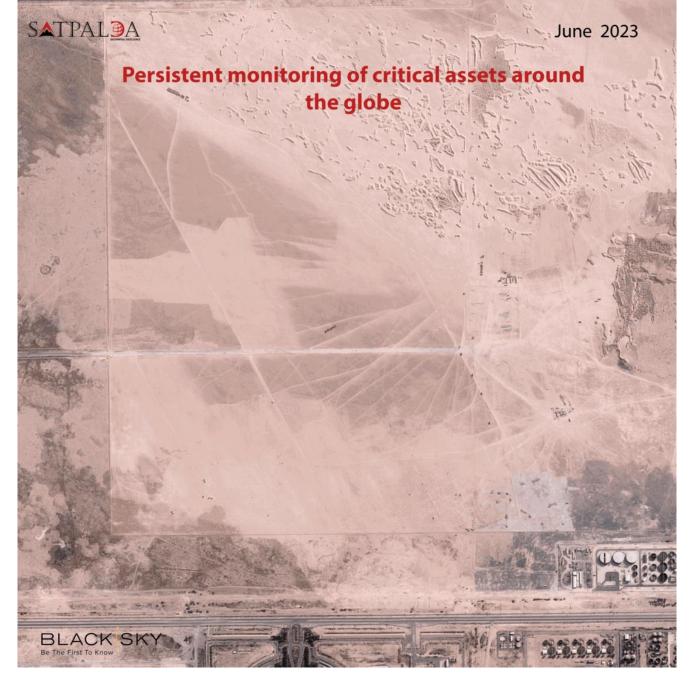




May 7, 2023, 6:33 p.m. local









# **Construction Monitoring: Jewar Airport**



Jan 2023

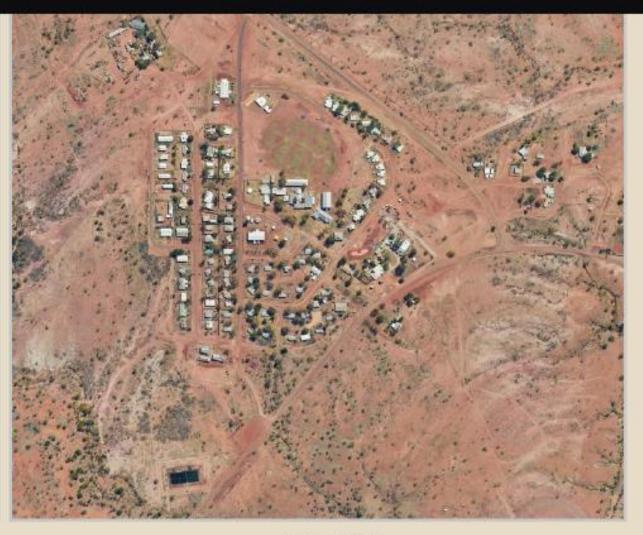


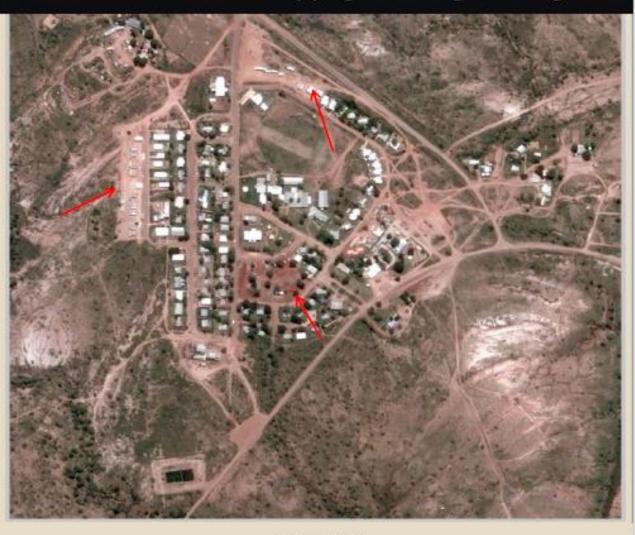


April 2023



# Use Case: Remote communities - monitor recovery progress or illegal dwellings





1 August 2022 25 April 2023

# THANK YOU Phone No: 7500282829 Email: Yetender.singh@satpalda.com BLACK SKY © BlackSky 2023. All rights reserved. Confidential & Proprietary.