

Security & Monitoring Management Solutions

A proposed presentation by **KSF Space**

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Better data. More answers









Evacuation planning »

Emergency aid Planning »

Damage assessment »

Defense and homeland security »

Risk analysis

Image coverage and revisit:

- Daily everywhere at 3 to 4m resolution using one supplier (subject to cloud)
- Daily everywhere at 0.5m resolution using multiple suppliers (subject to cloud)
- Every few days at 0.5m resolution for any location using one supplier (subject to cloud)

Image delivery times:

- Standard may be up to 3 days after acquisition
- Priority or emergency will be within ~hours
 (not available from every supplier at every location)
- Non-commercial imagery at 10m resolution is available also, with wide coverage

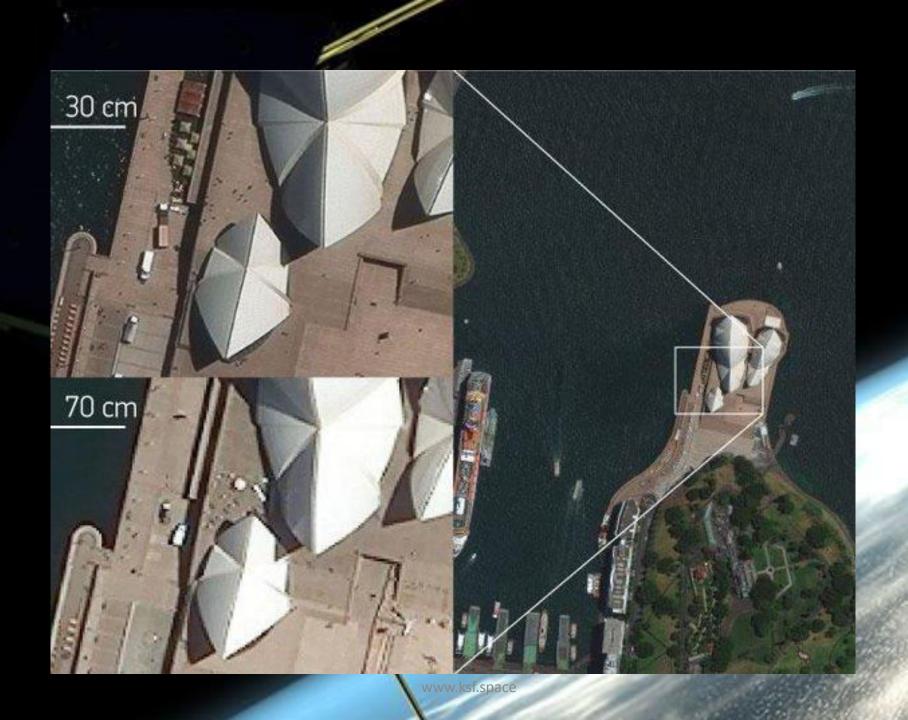


Satellite imagery and analysis can provide you with timely access to information so you can understand evolving situations that may have an impact in your area of responsibility.

Sana'a Airport attack in Yemen on March 27, 2015.









Damage assessment layers over the city of Tacloban in the wake of Typhoon Haiyan

- ✓ Damaged Roads
- Undamaged Roads
- Crowdsourced Damage
- ✓ Damaged Bridges

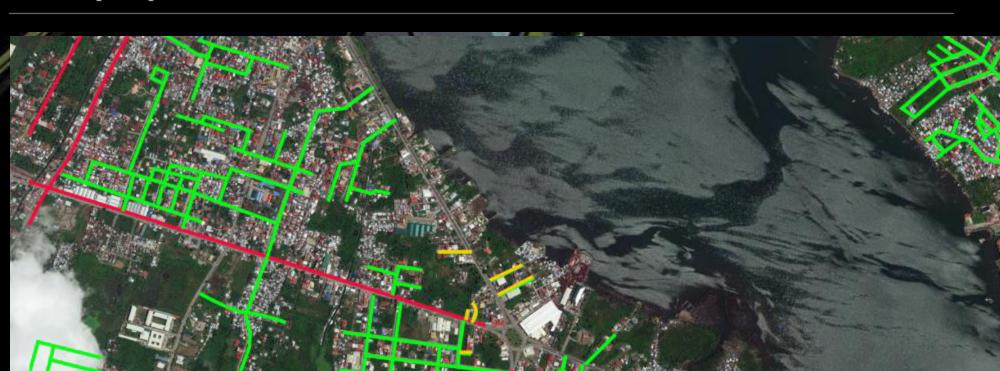






Image within Smoke



Image within Smoke



Image within Smoke







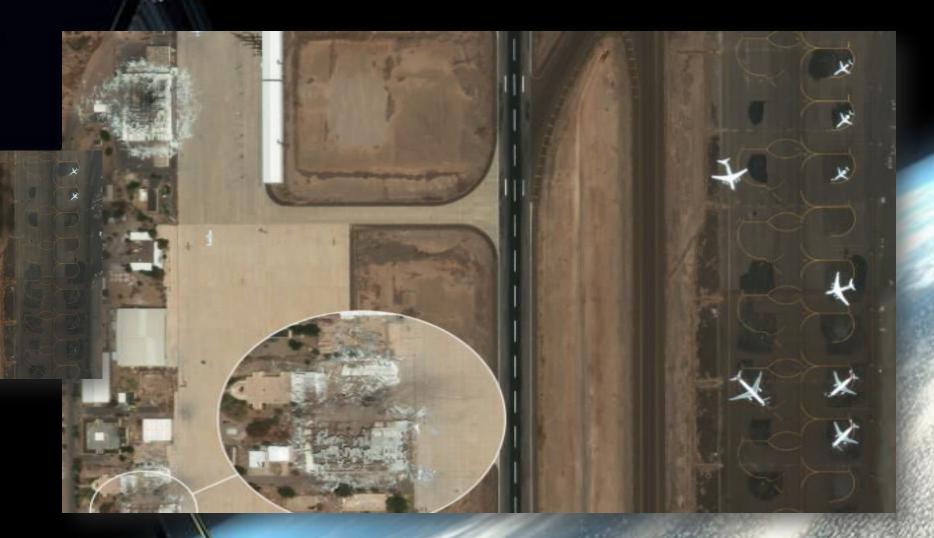


Even with all of the data-gathering techniques employed by intelligence agencies, information gaps persist.





Satellite imagery in conjunction with other intelligence sources can provide a more well-rounded and clearer picture of what is happening around you.





An insecure border can open a country to terrorism, drug trafficking, weapons proliferation, smuggling, and illegal immigration.





Border monitoring is essential for maintaining national security.





Using consistent monitoring along with historical imagery allows you to observe changes in the terrain that may indicate when illegal passage is happening.





Features / objects extraction and processing (independent order)





Effective and good performance at close to 0.5m and 0.4m spatial resolution

Product resolution

PAN: 0.4 m, 0.5, 1 m / MS: 1.6 m

@ altitude 528 km, 550 km and 685 km (nadir)

Sensors Capture

(0.7, 0.5 & 0.4 m) Resolution

Bands

PAN: 450 ~ 900 nm

Projection / Datum.

UTM / WGS 84

Orbit

Sun synchronous orbit

File format

GeoTIFF



Monitoring Strategies

For large area monitoring, it is often practical and cost effective to monitor a large region daily at 3-5m resolution and use change detection to identify key locations for high resolution analysis and investigation.

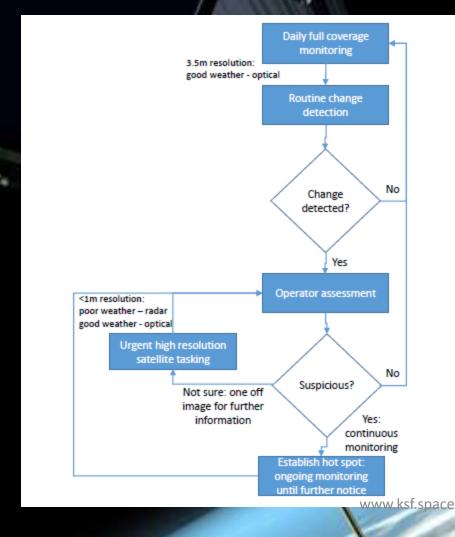
Options	Description	Revisit frequency	Spatial resolution	Coverage	Change detection	Comments
1	Wide coverage	~11 days or worse	~10m	Very large (regional or national)	Automated with manual QA	Coverage not guaranteed; have to accept cloud; opportunitistic; coarse resolution; minimal cost
2a	Daily optical monitoring	Daily (around mid-day local time)	3 m - 4 m	Large (e.g. entire border)	Automated with manual QA	Have to accept cloud; less sensitive to change than radar; useful to assist interpretation; not cost effective for large areas
2b			0.5 m	Targeted location	Manual or algorithm assisted	
3a	Daily radar monitoring	Daily 5.30 – 7.30am local time (all- weather)	0.5 m	Targeted location	Automated with manual QA	Very sensitive change detection with or without cloud. Natural events can cause false alarms (animals)
3b			3 m	Large (e.g. entire border)	Manual or algorithm assisted	

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Recommended monitoring strategy for large areas





NEP Certification

from KSF Space

actionable weather data to civilian and military forecasters - with spacecraft, instrumentation and expertise that Go Boyand."







Satnews Daily MOU Between KSF & IOS For Smallsat Shots



according to IC valisats to a circular, polar orbit at 310 km altitude. Their current manifest numbers ncket technology that will enable that firm to be the lowest-cu

Tirm will ideal KSF Space signs MOU with Interorbital Systems

agreement, Inti associated pre-



KSF Space Foundation has signed a memorandum of understanding (MOU) with Interorbital Systems (IOS) in California, this October the 3rd 2016. Under the agreement, Interorbital Systems will identify launch apportunities and provide associated pre-launch support to KSF Space Foundation.

nificant milestone in the development of our scope towards space RSD projects, we are promoting to our research and academic customers the ability to access space with cost-effective ride-share opportunities with

mpanies in the market." said Dr. Kayyali Mohamed, founder of KSF Space, of the using to (10%, by mid-2017/early 2018 they will begin launch services of small spacecraft to a circular, 19, 09 mile: 2017 early 2016 usey will owigh lauren, services or small epidementation a disor-O 904 altitude. Their current manifest numbers 135 Tube Sats and Cube Sats availting laure.

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September 19th, 2016

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Satnews Daily

essional Certification From KSF Space To Make A Difference

e vertels first MEP Certification for space education and the space industry is coming to fruition via the non-

The NET Certification pathway will address he respace engineers and experts and will be recognized by major space companies, or expectations, foundations and agencies, some of the industries will work with xir space to review the consent of the course expectations, foundations and agencies, some of the industries will work with xir space to review the consent of the course expectations and credit the certificate by recognizing NBF Certification as world's first and only consentation engineering expectations.

One example of an aerospace coregony to the US that recognities the NEP Certificate is interorbital systems in California—that One example of an aeronace company in the UT that recognition the MEP Certificate is interarchal Systems in California—dia firm alons to develop smole, yet robust technology to become the lower-toot burn't provider in the commercial spoke industry, interorbital systems to currently engaging in building a burn's vehicle for the Google Lunar X pritte and for commercial commercial spokes.

More perospace companies and organizations are currently working on MEP recognition with KSP alone aerospace companies and organizations are currently working on left recognition with xia space, are certification will come to market early 2017 and will be totally concentrated on the smallast transfer sector. The benefits of balls MEP Certified include...

percognities space engineering skills across the globe: an NEP credential is a perfect

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KSF Space

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a U.K. registered non-profit organization







BEGINNINGS

WORLD'S NEWS BREAKING NEWS!





Time Business News



