FREQUENT TEMPORAL CHANGE (FTC)
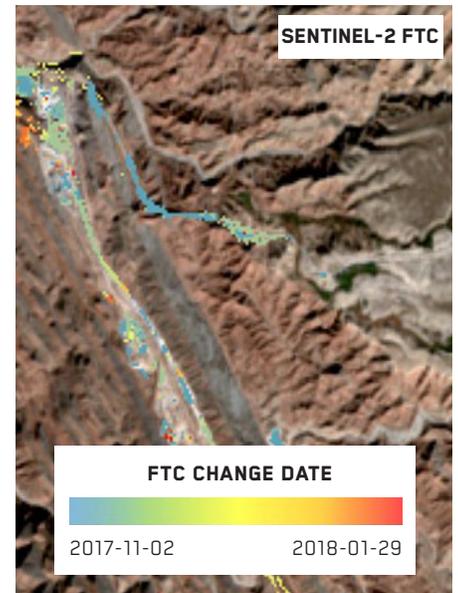
📄 **DATA SHEET**

Frequent Temporal Change (FTC)

Frequent Temporal Change (FTC) is a geospatial data layer that uses high-revisit satellite imagery to provide customized tip-offs to areas of continuous change. Analysts use FTC to monitor pattern-of-life in areas and facilities of interest across the globe—allowing them to derive rapid insight into transient and recurring events. FTC is a cost-effective form of persistent surveillance that supports activity-based intelligence (ABI) analysis and more efficient management of analysis resources.

Features and benefits

- **Scale and sensor-independent** algorithms streamline resource costs and expedite data-driven results.

  - Detected activity shows deviation from baseline, signifying the need for further investigation

- **Low, moderate and high-resolution sensors** (such as Landsat 8, Sentinel-2 and WorldView) offer ample integration between sensor and activities of interest.

  - Larger footprint best suited for capturing medium construction, small to medium excavation, large ships and new roads

- **Radar** (e.g. Sentinel-1 SAR) persists through consistently cloudy and low-light conditions.

- Non-visible spectra best suited for hard-edged, man-made structures and vehicle detection

- **Smallsats** provide persistent coverage with high revisit regularity.

  - Smaller footprint best suited for in-depth monitoring and use near small buildings, vehicles and ships

- **Multiple use cases** with special interest activity targeted and categorized into distinct groups (and change confirmed with high-resolution imagery).

  - Mining, transpiration, utilities, construction, vehicle movement, etc.

SENTINEL-2 FTC

FTC CHANGE DATE

2017-11-02 — 2018-01-29

Gold level FTC reveals continuous change in a mountainous region

Activity type
- 🔵 Construction-soil disturbance
- 🟢 Construction-tunnel
- 🟠 Construction-spoil pile
- 🟡 Transportation-road
- 🔴 Unknown activity

Platinum level FTC derives ABI

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FTC can provide insight into new construction activity at facilities of interest, like the improvements of this airstrip in Saudi Arabia.

Product packages

FTC is highly customizable based on your needs. Work with our remote sensing consultants to determine the ideal satellite, temporal cadence and spatial resolution for your application:

- Platinum: Our image analysts isolate only the activity that is of interest to you, providing attributed geodatabases or geospatial layers categorizing the activity based on high-resolution imagery.

- Gold: Incorporate spectral and spatial modeling to help attribute the activity tipoffs into broader categories such as From/To classes.

- Silver: Ingest the raw tip-off pixels into your own advanced spatial modeling workflow for increased focus on your application.

FTC captures activity using higher temporal satellite collections with as few as three image collection dates—providing a tipping and cueing mechanism for higher resolution imagery or assets.
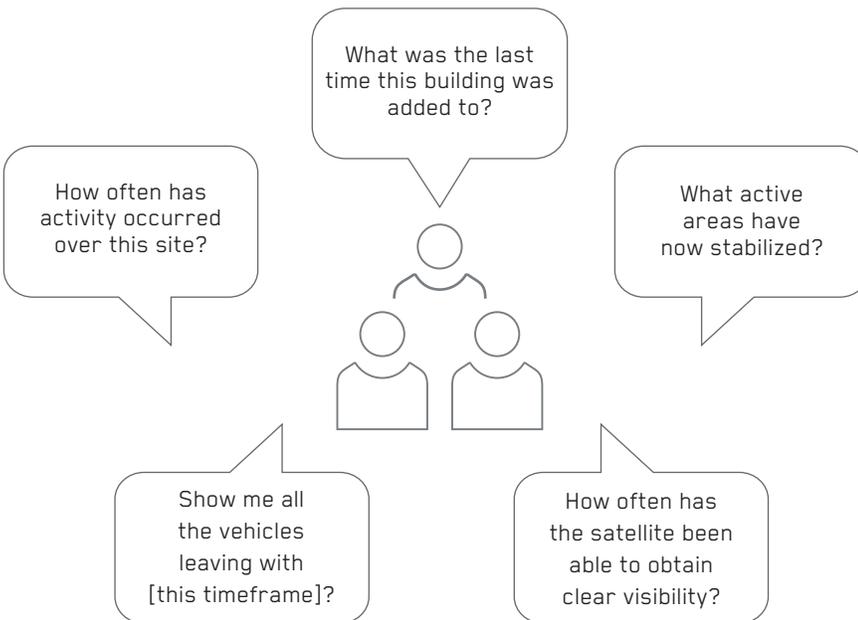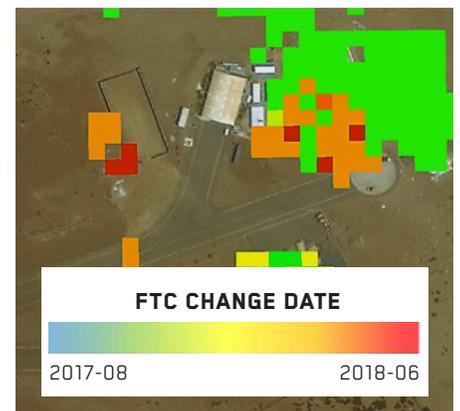

FTC isolates activity, providing insight to activity taking place at airstrip facilities resolution imagery or assets.

2017-09-30

2018-08-01

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