



Case Study

Oil and Gas

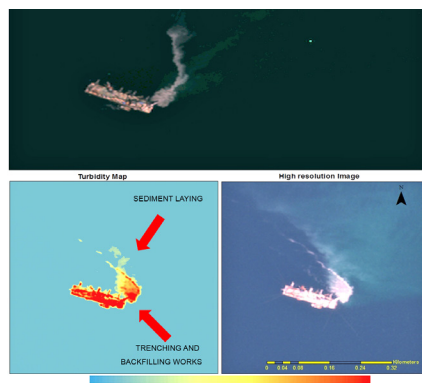
Supporting Nearshore Pipeline Construction with Satellite Imagery

Challenge

Saipem S.p.A, an Italian oil and gas industry contractor, subsidiary of Italian energy company ENI, had planned to design and construct pipelines in the Caspian Sea. However, this type of work entails intensive dredging, which involves moving underwater sediments from one place to another and thus disturbing water quality.

Traditional water quality monitoring techniques, such as sampling at sea and laboratory analysis, present logistical and operational inconveniences as well as long processing times. This is often incompatible with a company's need to obtain real-time information. In addition, field observations and measurements, while frequent, are not able to provide a complete and exhaustive spatial answer to describe all the phenomena in progress. Solutions to monitor water quality and compliance - also known as sea turbidity - rely more and more on satellite imagery.

Planetek Italia, a company specialising in geospatial value-added products, deliver water quality reports to Saipem. They contacted Airbus Defence and Space as they needed to get very detailed information, at random and unforeseeable times, in the shortest timeframe.



Turbidity map extracted from Pleiades high resolution image

"We are proud to be able to offer near-real-time services thanks to the fast and reliable tasking service offered by the Airbus Defence and Space satellite constellation. The availability of these capabilities really boosts the opportunities for value-added service providers to offer real solutions to customer needs."
Sergio Samarelli,
Planetek CTO

Solution & Results

Airbus Defence and Space had to guarantee daily and flexible access to imagery. Pléiades Instant Tasking subscription was the ideal and cost-effective solution.

Planetek placed 5 Instant Tasking orders through GeoStore. Thanks to a fully automatic process, all the images were delivered in just 2.5 hours after acquisition!

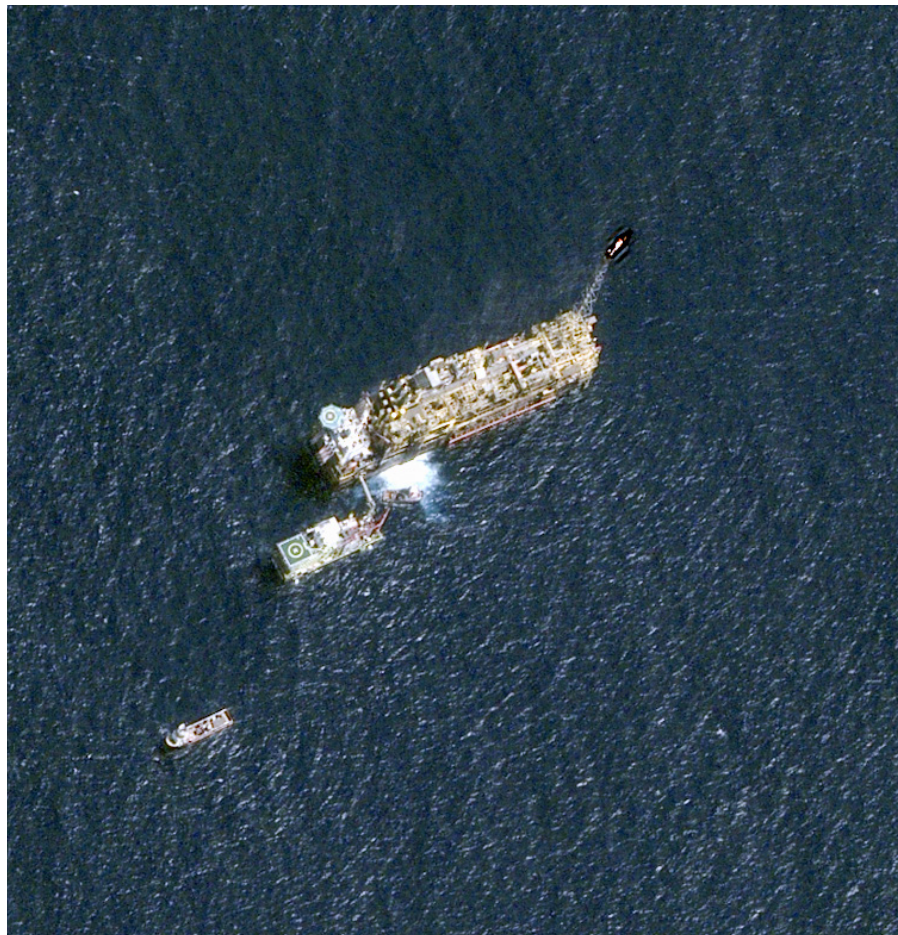
Planetek quickly extracted the information needed from the imagery and delivered an analysis report to the end-user, Saipem. The result was a quantitative and spatial definition of the dispersion of sediments during dredging operations.

Saipem was thus able to receive near-real-time overviews of the dredging impact during the execution of their work.




The satellite imagery based information was used by the company to report their compliance with environmental norms to authorities as well as to increase their efficiency in monitoring all ongoing events during the execution of works.

Benefits

- **Efficient Time Management:** 24/7 Instant Tasking service availability through GeoStore, Pléiades guaranteed acquisitions and rapid deliveries.
- **High Accuracy:** Saipem benefited from reliable water quality monitoring thanks to Pléiades high resolution, enabling detailed dredging activity assessment by Planetek.
- **Cost-Efficient:** Instant Tasking subscription enabling access to information without sending people on site.



Pléiades, 11 April 2014

-  **Challenge** Acquire VHR imagery at the last minute to satisfy the customer's need for information and responsiveness.
-  **Solution & Results** Rapid delivery of Pléiades products with the Instant Tasking service for the production of a quick water quality report.
-  **Benefits** Efficient timing management by the customer and time and cost efficiency for the end-user.

Solution Description

Instant Tasking is a 24/7 web service that enables users to request and get a new satellite image directly from their laptop, in full autonomy, in just few hours. The customer's request is transmitted directly to the satellite with a maximum priority level. The image is acquired, produced and delivered as quickly as possible. This service is available with Pléiades and SPOT 6/7.

Organisation Involved



Planetek Italia is a company specialised in geo-informatics, Space solutions, and Earth Observation. They provide solutions to exploit the value of geospatial data through all phases of data life cycles, from acquisition, storage and management to analysis and sharing. They operate in many application areas ranging from environmental and land monitoring to Open Government and smart cities, including defence and security, as well as scientific missions and planetary exploration.