



# ALCIS EXPOSES EXTENT OF OPIUM TRADE IN AFGHANISTAN

Alcis exists to reveal critical information and insight about complex environments. Alcis also trains others to do likewise. With the assistance of advanced satellite imagery, Alcis plays a critical role in validating the effectiveness of tactical strategies and providing evidence-based situational awareness.

Recently, Alcis began reviewing a military mission aimed at eliminating opium labs in Afghanistan, which started in November 2017. The strategy: airstrikes. But how effective was this strategy in countering the narcotics operation.



Figure 1. MOAB area of impact

### Step one: Previous analysis.

In May 2017, drawing on pre and post-event WorldView-3 imagery, Alcis examined the impact of the Mother Of All Bombs (MOAB) that was dropped in Eastern Afghanistan. Within three weeks of the event Alcis released a detailed report on the MOAB strike, a report that was then picked up by the Guardian and other news outlets. This analysis was informative in shaping the approach to analysing the impact of subsequent airstrikes on heroin processing laboratories.

### Step two: Detailed analysis.

A series of airstrikes had taken place on a number of reported heroin processing laboratories in northern Helmand. Alcis used satellite imagery from Maxar SecureWatch to locate the airstrikes and worked with its research partners who sent in a survey team to understand the impact on the community. The team was able to quickly locate the strike locations and speak with knowledgeable locals, who provided valuable insight on under reported civilian deaths and in another instance, how quickly the labs were rebuilt and back in action. This combination of imagery analysis and field work led to the production of a highly insightful report.



Figure 2. Nine buildings hit by airstrikes; one was an occupied residence that killed the nine civilians.

**Assessment:** Airstrikes had little impact on opium operations and were instead damaging the community. The resolution of imagery made it possible for Alcis to map the location of airstrikes so that targeted field surveys with more focused questions could be conducted quickly and safely, in the right location.

## Step three: Find the source.

With new imagery, Alcis continues to deepen its analysis of the heroin supply chain. The supply chain starts with the cultivation of opium poppy. This illicit crop is most commonly grown in remote, desert areas. However, in order to obtain water in such arid locations, one must dig for water and pump it out of the ground. Pumps require diesel fuel which costs money. However, after receiving reporting from its research partners that farmers were beginning to adopt solar panels to pump water and avoid high diesel fuel costs, Alcis was able to explore Maxar satellite imagery and found something very unusual. Over time, there was wide, significant and increasing adoption of this green technology by large numbers of remote, desert based households.



Figure 3. Maxar multispectral imagery can detect a long list of manmade materials, like material, found in solar panels.

It was an odd sight to find a spread of solar panels and surface-level reservoirs popping up across this region. Turns out, solar energy provides a much more cost-efficient and convenient way to power water pumps in desert areas, as detailed in this [report](#).

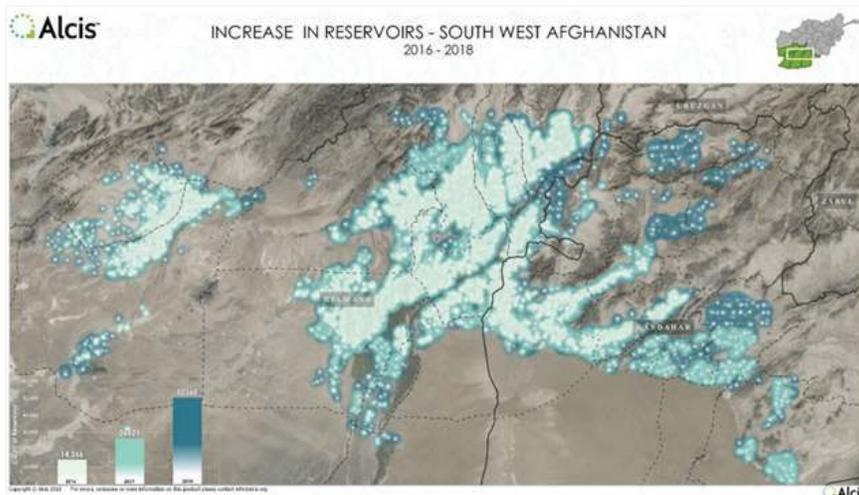


Figure 4. Maxar multispectral imagery can detect a long list of manmade materials, like material, found in solar panels.

## SHAPING THE FUTURE OF IN-DEPTH RESEARCH

In the words of former U.S. Defense Secretary, Donald Rumsfeld, there are three types of information: known knowns, known unknowns, and unknown unknowns. In this case, the labs were known knowns, the impact of the MOAB strike was known unknown, and the solar-powered farms were the unknown unknowns.

Thanks to the brilliant work of our partner Alcis, counter-narcotics teams now have new, valuable insights to identify and tackle illicit crop supply chains more effectively. And this is just one example of how Alcis is leveraging the quality of our satellite imagery technology to extract critical information.

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"Maxar imagery and SecureWatch made this all possible - we had instant access to the imagery we needed every step of the way."

– Richard Brittan  
Managing Director, Alcis

Together, Alcis and Maxar are helping non-traditional imagery users keep up with the speed of change by making geospatial data and insights more accessible.

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