

Battle Damage Assessment over Al Shayrat Airbase

Case Study

Challenge

To evaluate the results and efficiency of US airstrikes on the Al Shayrat Airbase, controlled by the Syrian government. American intelligence believed the base was being used by the aircraft that carried out a chemical weapons attack.

Solution and Results

Airbus immediately programmed and acquired satellite imagery, which was then compared with its worldwide archives, and provided a Imagery Intelligence (IMINT) report, in this case a Battle Damage Assessment (BDA).

Benefits

Airbus' reactive and accurate satellite tasking service and extensive archives enabled a true comparison to be made for intelligence and BDA.



Al Shayrat Airbase - Syria
 Pleiades: 2017-04-09
 RP: 34° 29' 24" N / 036° 54' 29" E

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Analysis made from Pleiades Image acquired on April 8th and 9th, 2017 highlighted the US Battle Damage Assessment on the night of April 7th. The aeronautical infrastructures were not damaged and still fully operational. Only the fuel depots, the depot in the East and some aircraft shelters were struck. At least 3 Mig-23 have been destroyed or damaged. There is nothing to confirm that the damaged shelters weren't home aircraft. On April 9th 3 Albatros, 1 Mig-23 and 2 Su-22 still seemed operational.

Challenge

Before sunrise on 7th April 2017, several US Navy warships, located in the Mediterranean Sea, launched a wave of around 60 Tomahawk missiles over the Al Shayrat Airbase, which is controlled by the Syrian Government. American Intelligence believed it was the base being used for the aircraft that carried out a chemical weapon attack over Khan Shaykhun town three days prior. Airbus produced a Battle or Bomb Damage Assessment (BDA) to evaluate the success of this mission. This is a key military activity to evaluate the results and efficiency of strikes.

Solution and Results

Various sensors and methods accomplish the required evaluation, including satellite imagery. Airbus can immediately programme

and acquire images, then compare them with its worldwide archives and provide an Imagery Intelligence (IMINT) report, such as a BDA.

To assess the US Battle Damage Assessment from the night of 7 April, Airbus Pleiades captured detailed images of the airbase on 8–9 April. They revealed that the aeronautical infrastructures were undamaged and still fully operational; whereas the fuel depots, the depot in the East and some aircraft shelters had been struck; and several Mig-23 had been destroyed or damaged. It could not be confirmed whether the damaged shelters held aircraft.

The US Navy had avoided targeting suspected gas storage facilities. A few hours before the strike, the US had warned Russia of their planned action. It seems that Russia then simultaneously tested countermeasure

devices to jam the Tomahawks, which explains why – despite direct hits to the airbase – the Syrian Air Force base remained operational, enabling them to bomb the rebels only a few hours after the American attack.

On 9 April, new Pleiades images showed that at least three Albatros, one Mig-23 and two Su-22 were operational.

Solution Applicability

Airbus IMINT capacities are proven solutions to help customers to perform any analysis requiring several images and related intelligence - not only BDA, but many defence and security domains like border monitoring, aircraft crash research, natural disaster consequences, illegal or suspicious activities.

Benefits

- Reactive and accurate satellite tasking right after bombing.
- Extensive imagery archives bank serve as comparison source.
- True imagery expert analysis to provide intelligence and BDA.

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