Geo-Intelligence Solutions for Disaster & Emergency Management
The Power of the Airbus Group

Employees*: ~ 140,000
Revenues*: ~ € 56 bn

Employees*: ~ 73,500
Revenues*: ~ € 39 bn

Employees*: ~ 22,400
Revenues*: ~ € 6.3 bn

Employees**: ~ 40,000
Revenues**: ~ € 14 bn

Space Systems  I  Military Aircraft  I  Communication, Intelligence & Security  I  Electronics

- Geo-Intelligence
- SatComms
- Integrated Systems
- Secure Land Communications

* in 2012
** estimate for 2014
A Legacy of Expertise

1982

CNES founds Spot Image

1986

Creation of Infoterra

SPOT 1
Launch of SPOT 1

2001

Full integration into Astrium Services

2002

Creation of Infoterra

SPOT 5
Launch of SPOT 5

2007

TerraSAR-X & TanDEM-X
2007: Launch of TerraSAR-X radar satellite
2010: Launch of TanDEM-X, for WorldDEM™

2010

Pléiades 1A & 1B
2011 & 2012: Launch of Pléiades very-high-resolution satellites

2011

Re-branding to Airbus Defence and Space

2012

SPOT 6 & 7
2012 & 2014: Launch of SPOT 6 and SPOT 7

2014
Make what we do up here...

...relevant to people down here.
We use these....
DEIMOS-1 - Poyang Lake - China
TerraSAR-X - Mount Taranaki - New Zealand
SPOT 6 - Doha - Qatar
Pléiades - Suez - Egypt
….to make these

Elevation

WorldDEM

Mosaic Images

Surface Movement Monitoring
Delivering these services

Maritime Services

Direct Access Services

Monitoring Services

Software Services

Data Management Services

Emergency Services
for these markets
The International Charter helped by Pléiades and TerraSAR-X Reactivity in Disaster Damage Assessment

**Challenge:** Support rapid damage assessment and rescue planning in case of natural disaster.

**Solution & Results:** Delivery of Pléiades and TerraSAR-X images within 24h of the request and SPOT 5 archive image as reference layer.

**Benefits:** Good knowledge of remaining infrastructure, immediately assisting the work of rescue teams.

**Applicability:** When a natural disaster occurs, reactivity is key to rapidly assessing damage extent and supporting rescue operations.

In such cases, Airbus Defence and Space’s Constellation of satellites provides an efficient response thanks to its daily revisit capability and its weather independence.

**Benefits**

- Maps gave precise and up-to-date information on the disaster impact extent. Humanitarian organizations were immediately able to start rescuing and sheltering people as they knew which infrastructures could be relied on.
- Geographical information layers were used to gauge the size of the overflow and to monitor movements of refugees during and after the flooding.
- Finally, the maps allowed a better disaster forecast in a region regularly affected by natural risks: satellite-based maps are of great interest to Niger authorities in risk management.
March 2015 – 11

GeoStore

A Unique One-Stop-Shop. GeoStore is a new generation online portal enabling users to browse large archives of satellite imagery and geospatial products. Users can order online and even task satellites directly from their desktop.

Unique Access. The world’s largest online satellite data archive at your finger tips - accessible directly online 24/7.

Easy and Intuitive. Quick searches, instant display, intuitive maps, exportable results, multiple options.

Secure and Personalised. Tasking of satellites online, tracking of orders and tasking requests, independent account management, personalised customer service.
Premium Imagery Services

**Exclusive Imagery Access.** Airbus Defense and Space offers Premium Imagery Services, available through the ArcGIS Marketplace. These services offer flexibility and customization providing an end-to-end solution for all of your imagery needs.

**Cost Efficient.** Multiple solutions to save money on mapping and planning.

**Easy and Fast.** Acquire new and archive imagery, anywhere, anytime. Delivered as an imagery service to be used in ArcGIS and ENVI.

**Fresh Imagery and Analysis.** Frequent Imagery and change detection over an AOI. Complete analysis of a site, delivered as a Story Map and ArcGIS Image Service.
Satellite Tasking & Archive App
Virtual Tasking Provides Rapid Access to Imagery for Disaster Response

Challenge: Oil facility fire in Libya. NRT very high resolution satellite imagery needed for damage assessment and action planning.

Solution & Results: Instant Tasking provided within the GeoStore used to quickly acquire and deliver Pleiades imagery.

Benefits: Rapid access to an up-to-date view of the area affected by the fire: 12 hrs 31 min. from request to delivery.

Applicability: When a disaster occurs, rapid access to imagery is needed to assess the extent of the damage and support rescue and recovery operations.

In such cases, emergency response organization's can use Airbus Defence and Space’s Instant Tasking and other satellite tasking services to get new imagery very quickly.
Disaster Management: Tornado in Pilger, Nebraska

Reliable Continuous Observations. Weather-independent, highly accurate TerraSAR-X data facilitates regular monitoring and reliable documentation of recent changes as well as long-term developments.

Reliable. Weather-independent sensor and fixed repeat cycle of 11 days (4 / 7 days with upcoming PAZ satellite) offer a consistent basis for project planning and monitoring.

Fully Automated. Cost-efficient and automated processing allows for rapid delivery.

Precise. Even subtle changes and small-scaled objects can be detected. Positional accuracy is <1m.
SPOT 6 helps the Insurance Sector in case of Agricultural Disasters

Benefits

- SPOT 6 & SPOT 7 provide a daily revisit capability anywhere on Earth, ensuring rapid delivery of images for time-critical applications.
- The customer can clearly detect and accurately locate the damaged areas to be checked.
- The broad overview of impacted areas, their location and the detailed information help optimise the efficiency of the insurance service.

Generali now plans to establish a prevalent use of these maps for all disaster assessment situations they will face in the coming years.

Challenge: In case of agricultural disasters, insurance companies require a rapid damage assessment.

Solution & Results: Satellite data provides a broad overview of the affected areas and supports on-ground assessments.

Benefits: Improved coordination of the evaluation of agricultural disasters on the ground and rapid help for affected farmers.

Applicability: Optimising the time insurance experts spend in the field reduces the overall timeframe for the global evaluation, expedites the initiation of the compensation process and optimises costs for the insurance company.
TerraSAR-X-based Surface Movement Monitoring for Improved Safety in Urban Areas

Challenge: Prevent endangerment of infrastructure and human lives due to surface movements.

Solution & Results: Space-based monitoring with TerraSAR-X complements terrestrial measurement campaigns.

Benefits: Improved understanding of the surface movement and support of the implementation of countermeasures.

Applicability: TerraSAR-X-based surface movement monitoring can complement terrestrial measurements and hence supports authorities and engineering companies with the timely detection of risks to human lives and infrastructure.

Subsequently TerraSAR-X can be used to monitor the effects of countermeasures taken by the authorities.
SAFEcommand™

Powerful Integrated Software. SAFEcommand™ is an innovative software solution specifically designed to address the modern challenges faced by public safety and emergency organisations.

Duty of Care. The SAFEcommand™ systems and software suite addresses four essential areas: data management, asset tracking, mobile information retrieval and communications, and emergency preparation and response.

They help public safety and emergency organisations deliver on their critical Duty of Care objectives.
POINEERING THE FUTURE TOGETHER

Contact:
Name: Jessi Dick
Title: Sr. Marketing Manager, Online & Software Partnerships
E-mail: dick@astrium-geo.com