

EUROPEAN SPACE IMAGING

# DEFENCE & INTELLIGENCE

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# SENSOR OVERVIEW



TRUE 30 CM  
RESOLUTION



MULTI- &  
HYPER SPECTRAL



MULTIPLE DAILY  
REVISITS

## WORLDVIEW CONSTELLATION

Maxar Technologies | 4 Active

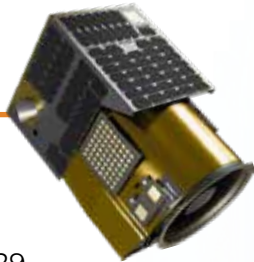
- 30 CM RESOLUTION
- UP TO 16 MULTISPECTRAL BANDS (INCL. 8 SWIR)
- ARCHIVE DATING TO 1999



## ALEPH-1 CONSTELLATION

Satellogic | 14 Active | 300 Planned

- 99 CM RESOLUTION / 70 CM SUPER RESOLUTION
- 4 MULTISPECTRAL (99 CM) / 29 HYPER SPECTRAL BANDS (25 M)
- WORLD'S HIGHEST VHR CAPACITY



## WORLDVIEW LEGION CONSTELLATION

Maxar Technologies | 6 Planned\*

- 29 CM RESOLUTION
- 8 MULTISPECTRAL BANDS
- WORLD'S HIGHEST 30 CM CAPACITY



\* Launch window of May 15 - June 13 2022 confirmed with SpaceX for first two satellites.



MAXAR

# 15 cm HD SATELLITE IMAGERY

Clear identification of equipment on the ground is critical for intelligence, surveillance and reconnaissance (ISR) missions. 15 cm HD imagery gives GEOINT analysts increased clarity with a greater level of IMINT accuracy to better observe the minute differences between vehicles, infrastructure and arms in order to assess and predict threats. 15 cm HD can be applied to native 30 cm imagery enabling persistent global monitoring and heightened situational awareness from the best resolution satellite imagery.

# SUPERIOR INTEL

## SOFTWARE AND ANALYTICS

Confronted with heightened national security challenges, military and intelligence organisations must source, ingest, process and analyse more data than ever before. Existing methods are often resource, technology and time intensive. Accessing the right software and analytic tools equipped with the best quality satellite imagery can fast track informed decisions for critical missions and potentially save lives. Our industry leading imagery and geospatial analytics leads to increased situational awareness and actionable insights.



## SECUREWATCH

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A SecureWatch subscription gives you on-demand access to view, exploit and analyse the highest quality satellite imagery via browser or API.

- **Secure access and AOI confidentiality**
- **World wide coverage including global denied areas back to 2001**
- **Critical imagery added within 48 hours of collection**

## HELP4i

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A stand-alone decision support system designed by Geo4i for the identification of military equipment in satellite images. The product includes over 6,000 references that can be dynamically compared with the image for 100% verification confidence.

- **Syncs seamlessly with the GeoSpace platform or via plugin with ArcGIS and QGIS**
- **Can be fused with AI Chain to create a robust AI platform**
- **Dynamic comparison tool for 100% verification confidence**





## GEOSPACE FROM GEO4i

Acquire expert area knowledge before ever sending soldiers into the field with Geo4i's GeoSpace. A dedicated GEOINT & IMINT platform for processing and analysing geospatial imagery and Big Data, the platform is NATO STANAG 3569 compliant. It features automated detection workflows, a range of spatial tools and reporting and analysis functionality.

- **AI object detection**
- **Data storage & management**
- **Change detection workflow based on SAR data**
- **Site digitisation & labelling**
- **Multi-temporal spatial analysis**
- **Third party integrations (ACLED, SecureWatch, AIS)**



## LEVERAGE THE AI CHAIN

The AI Chain is a GEOINT & IMINT API environment for the automatic detection of generic objects in satellite images. The product can be integrated into GeoSpace and is based on TensorFlow, tailored to fit D&I needs. The training set is generated by the user's imagery and the product can be deployed within the customer's secured infrastructure.

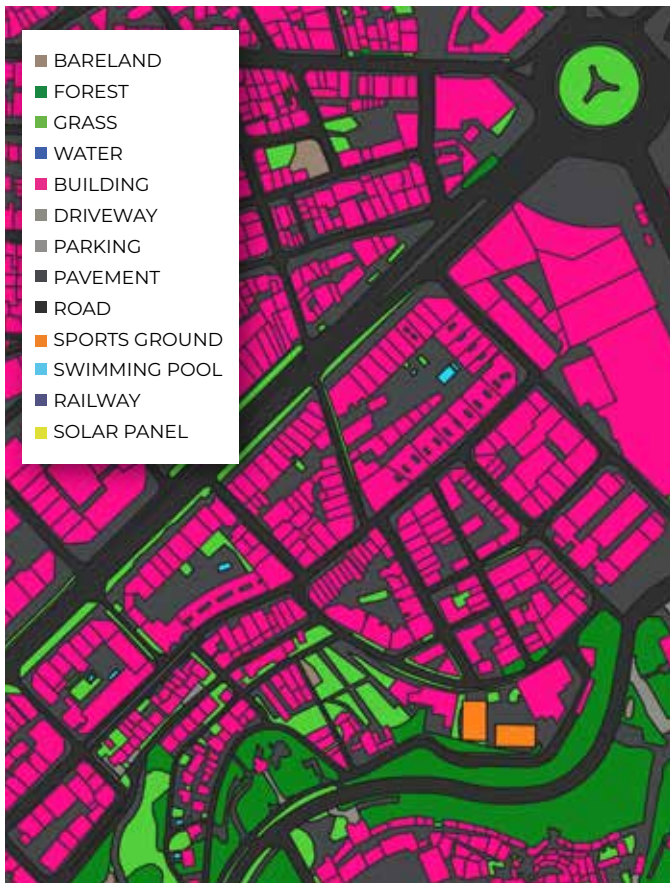
- **Automatic workflows**
- **Tagging tool**
- **Reporting & analysis**

# RELIABLE INSIGHTS

SOFTWARE AND ANALYTICS





The World doesn't exist in 2D. During intelligence operations, the ability to visualise datasets in 3D, or via vectorised feature extraction and classification, provides an additional layer of information that could prove tactically crucial when sending troops to difficult terrain areas. Ideal for strategic, tactical or operational planning before boots hit the ground, our software solutions are derived from the worlds best satellite imagery to offer the most geospatially accurate models possible, built at scale.




## ECOPIA GFX POWERED BY EUROPEAN SPACE IMAGING

Leveraging artificial intelligence that mines geospatial imagery from the WorldView Constellation, GFX rapidly generates HD Vector Maps at scale. These maps are trusted foundational layers embedded into critical applications around the world.

 Unmatched speed and scalability across all terrains

 Extract HD Vector Maps with the accuracy of a trained GIS professional at-scale

 Utilising more than +3 million km<sup>2</sup> of imagery to maintain the most up-to-date representations of reality



## GAF ELEVATION SUITE

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Digital Terrain Models (DTM), Digital Surface Models (DSM) and 3D visualisations at unparalleled accuracy:

- **Tri-Stereo DSM: 30 – 50 cm for specific AOI's**
- **Areawide bathymetric maps**
- **From archive or new tasking**



## AW3D BY NTT DATA

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World's first and the most precise 3D map covering all global land spaces for actionable intelligence:

- **5 m resolution worldwide**
- **From 50 cm to 2 m resolution**
- **Derived from the Maxar archive**



## MAXAR Precision3D

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Superior accuracy & global coverage through a range of 3D products to support mission planning:

- **Immersive textured 3D surface model**
- **DTM, DSM & point cloud**
- **Production at scale over large areas**

## VALUABLE INSIGHTS OF MILITANT GROUP, AL-SHABAAB, AFTER ATTACK IN MOZAMBIQUE

The attack on Palma on 24 March 2021 by Al-Shabaab caused a ripple effect of events, which called for a more thorough analysis. Very High Resolution satellite imagery sourced from European Space Imaging between 24 and 31 March was combined with in-depth open-source intelligence analysis making it possible to trace Al-Shabaab's troop movements in order to gain a better understanding of the militia's plan of attack and offered strategically valuable insights about the militant group.

After this initial step, the Media Mining Client (MMC) was utilised for a more qualitative OSINT approach, namely the analysis of broadcast and social media during the aforementioned time frame. This facilitated the understanding of the situation, and thus painted a more thorough picture of the situation during and after the Palma terrorist attack. This information provided NGO's, the UN and the Terrorism and Organised Crime service domain with the provision of actional, critical and up to date information otherwise inaccessible.



## About European Space Imaging

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With unique partnerships, innovative techniques and tailored services, European Space Imaging delivers the latest earth observation technological advances including a range of 3D products, analytic tools and imagery solutions.

Through **Very High Resolution** satellite imagery, we provide unparalleled **access to critical locations** around the globe. Tasking the Maxar WorldView constellation from our multi-mission ground station located at the German Aerospace Center, we can provide rapid delivery of **30 cm resolution** multispectral imagery. This allows commanders to have a full view during the planning, execution and assessment of any mission.

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