Transversal competencies

PRELIGE

Preligens (ex-Earthcube) develops pioneering technology to enhance operational decision-making to build a safer world. Its artificial intelligence solutions are based on an automated analysis of geospatial intelligence (GEOINT) workflows. Powering state-of-the-art Machine Learning and Computer Vision, Preligens aggregates information from multiintelligence sources (Multi-INT) to provide its Defence and Intelligence customers with strategic knowledge regarding mission critical areas of interest ensuring a more insightful operating picture.

COMPETENCIES & CAPABILITIES

Preligens' historical expertise lies in the automated analysis of optical satellite images. Its proprietary powerful AI algorithms run on the latter to detect, classify and identify objects of military interest (see illustration below).

Later on, Preligens teams have started working on other types of geospatial data, adding up other kinds of satellite imagery, such as SAR, Night Light, or SWIR, but also data coming from ELINT sensors such as AIS or ADS-B, or Open Source data coming from social network. All metadata associated to this geospatial information is hence used to deepen the analysis, continuously train AI algorithms to reach better performance, and eventually to structure, correlate and fuse information coming from all sensors for a comprehensive analysis.



Aircraft

V	All	113
~	Bomber •	23
~	Civilian	15
~	Combat	39
~	Special .	0
~	Transport 💿	33
~	Helicopter 🔸	3

PRELIGE S Détection automatique des classes et modèles d'aéronefs grâce à l'intelligence artificielle

PRELIGENS

PRODUCTS & SERVICES

Preligens' pioneering AI solutions are divided into two lines of products.

The IMINT product, the Strategic Site Monitoring application software, is dedicated to monitoring sites of military interest VHR satellite imagery. It provides its users with dashboard-centric alerts to unusual patterns of life along with the drill-down capability to assess the full image context. Aggregating multiple artificial intelligence detection algorithms, the platform delivers automatic feature extraction of military activity on those sites and the corresponding alert generation.

Additionally, Preligens Multi-INT tool monitors theaters of operations at scale. It leverages multi-sensor data, coming from all intelligence disciplines (IMINT, ELINT, OSINT), to provide its users with comprehensive and synthetic dashboards, to highlight key nodes and spot vulnerabilities. Aggregating information gathered from multiple sources, it enables an automated and systematic feature extraction to analyze trends and recognize patterns of life. An automated alert system permits its end-users to aggregate and correlate abnormal activities to identify weak signals and anticipate the appropriate course of action.

MAJOR SPACE PROJECTS & REFERENCES

Preligens, formerly Earthcube, was involved in ESA Business Applications program in 2018.

Additionally, since its solutions are providers agnostic, Preligens works with multiple satellite image providers, such as Airbus, with whom a joint site monitoring solution was developed — OneAtlas Defense Site Monitoring, but also Maxar, Planet, ESA, ...

More recently, with the launch of Pleiades Neo by Airbus, Preligens belongs to the group of early adopters to test its analytics capabilities on Airbus' new constellation's images.

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