Confidential

Synspective

Persistent SAR: The Sensory Backbone of Network Centric Warfare

Empowering multi-domain operations with real-time, all-weather situational awareness through the StriX satellite constellation.

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Defining Network Centric Warfare (NCW)

Translating an information advantage into a competitive warfighting advantage.

NCW is a military doctrine that seeks to translate an **information advantage**, enabled by information technology, into a competitive warfighting advantage through the robust networking of well-informed geographically dispersed forces.

The Three Core Grids of NCW:

- **The Sensor Grid:** Assets that collect data (Satellites, UAVs, Radar).
- **The Information Grid:** The network that processes and fuses data into actionable intelligence (C4ISR).
- **The Shooter Grid:** The effectors that act on the intelligence (Aircraft, Ships, Artillery).

1. Sensor Grid
Data Collection & Observation

2. Information/C2 Grid
Sense-Making & Decision

3. Shooter/Effector Grid
Kinetic & Non-Kinetic Action

Synspective's Role: Powering the Sensor Grid

Why conventional electro-optical sensors fail the NCW test.

The "Fog of War" Problem

Traditional Electro-Optical (EO) satellites rely on sunlight and clear skies.

- **Weather Dependency:** Up to 60% of the Earth is covered by clouds at any given time.
- **Illumination Dependency:** Blind for 12 hours a day during nighttime.
- **Strategic Latency:** The inability to see a target allows adversaries to move unseen under the cover of darkness or weather.

The SAR Solution

Synthetic Aperture Radar (SAR) is an active sensor. It illuminates the ground with microwaves.

- **24/7/365 Observation:** Penetrates clouds, smoke, fog, and volcanic ash.
- **Day & Night:** Completely independent of solar illumination.
- **Information Superiority:** Ensures the NCW Information Grid is fed continuously, stripping the adversary of stealth.

The StriX Constellation: X-Band Precision

High-frequency radar designed for tactical and strategic intelligence.

High-Resolution Imaging

Operating in the X-Band frequency, StriX satellites provide sub-meter resolution imagery, allowing for the accurate identification of objects of inerest.

Agile Tasking

A growing constellation means rapid revisit times. As we scale toward 30 satellites, target revisit times drop from days to mere minutes, ensuring dynamic battlefield tracking.

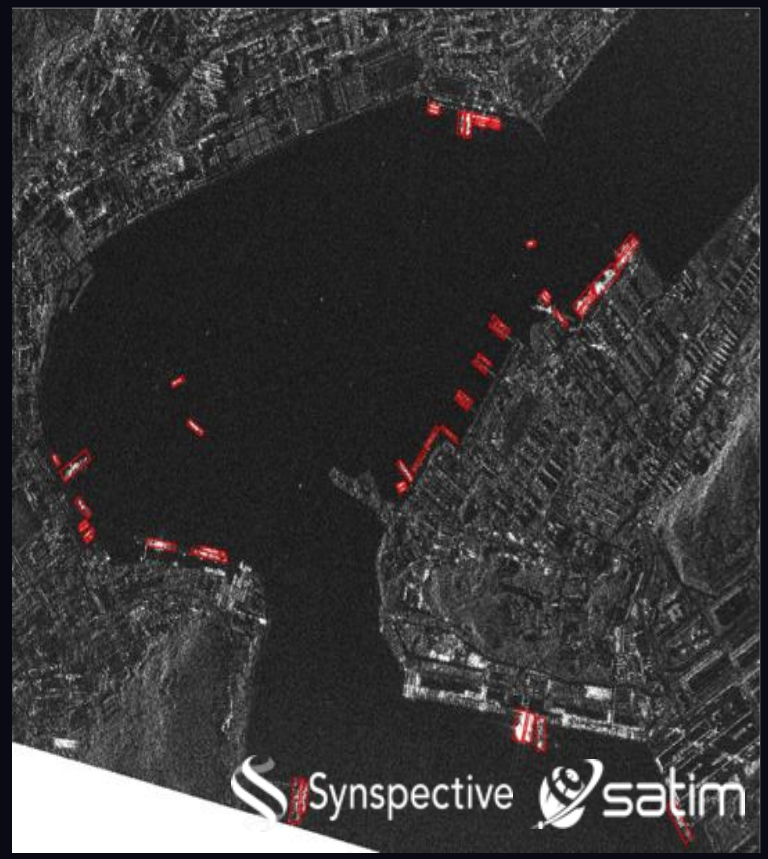
Compact & Scalable Design

Our proprietary 100kg-class small SAR satellites feature a highly innovative deployable planar antenna. This lightweight design allows for frequent, cost-effective launches to rapidly scale the constellation.

Operationalizing NCW: Maritime Domain Awareness

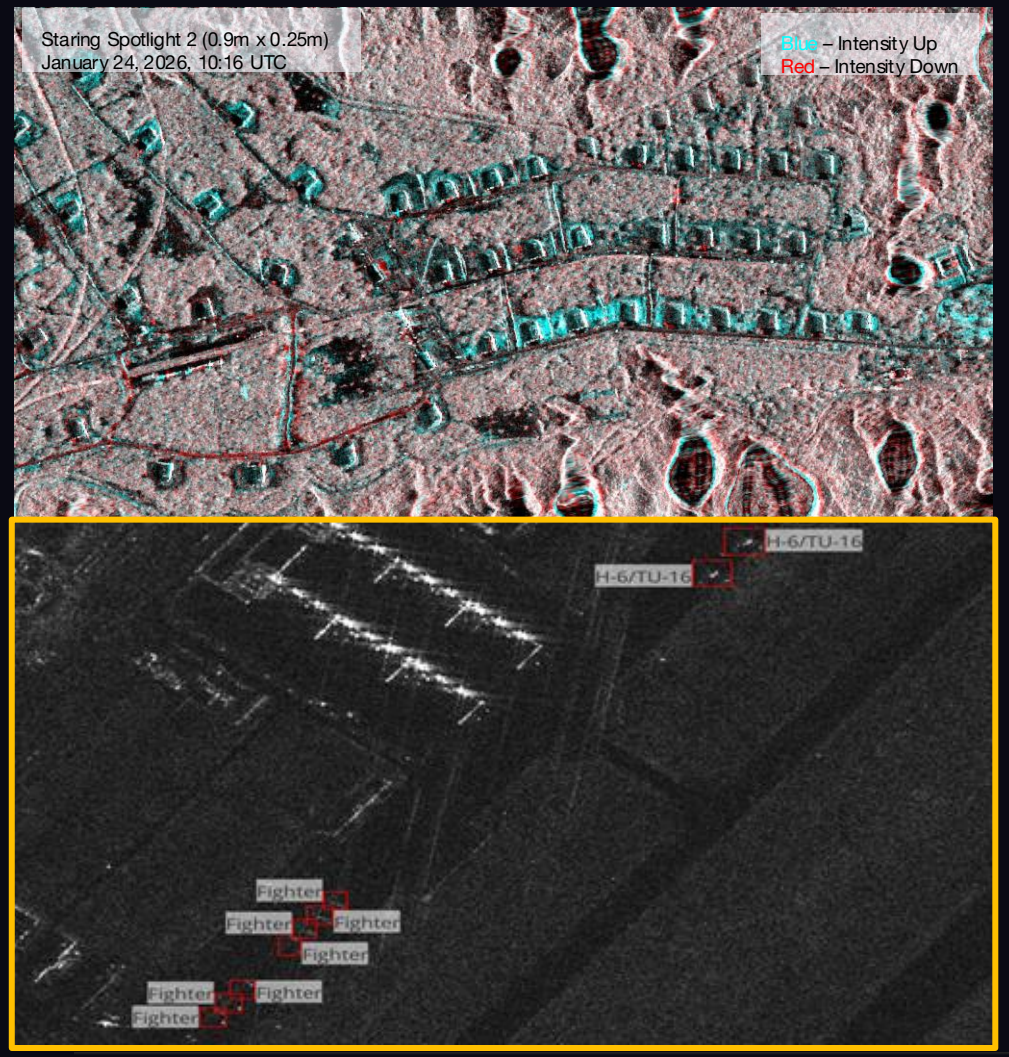
Securing the Indo-Pacific through persistent naval observation.

- **Dark Vessel Detection:** By fusing SAR imagery with AIS (Automatic Identification System) data, we expose "dark" vessels engaging in illegal fishing, smuggling, or gray-zone operations.
- **Fleet Tracking and identification:** Monitor adversary naval deployments and carrier strike group movements regardless of weather conditions in the South China Sea or broader Pacific.
- **Port Infrastructure:** Continuous monitoring of naval base logistics, submarine pen activity, and cargo loading routines.



Operationalizing NCW: Land Forces & Infrastructure

From strategic warning to tactical battle damage assessment.



- **Order of Battle Analysis:** Daily counts of aircraft on tarmacs, armored vehicles in staging areas, or missile battery deployments.
- **Pattern of Life (PoL):** Establishing baseline activity levels for military installations to automatically flag anomalous build-ups indicative of imminent operations.
- **Battle Damage Assessment (BDA):** Immediate, post-strike imagery to confirm target destruction without waiting for cloud cover to clear, closing the kill chain rapidly.

AI & Analytics: Bridging to the Information Grid

Raw data is a bottleneck. Automated sense-making is the enabler of NCW.

In Network Centric Warfare, **speed of command** is the ultimate metric. Synspective doesn't just deliver pixels; we deliver structured data via API directly to C2 systems.

1. Automated Change Detection

Proprietary AI flags only the pixels that have changed between satellite passes, drastically reducing analyst workload.

2. Automated Object classification and identification

Machine learning models pre-trained on SAR signatures to automatically identify ships and aircraft

3. Direct C4ISR Integration

Data pipelines built to feed directly into military common operating pictures (COP) securely and with minimal latency.

NCW Continuity in crisis

- **The proof: uninterrupted supply during crisis**

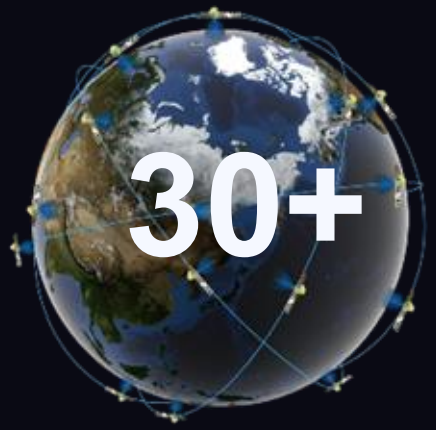
The Sovereign Risk: Reliance on foreign commercial intelligence often carries the risk of sudden data embargoes or throttling during regional conflicts.

Unbroken Overwatch (Iran): Throughout recent geopolitical escalations involving Iran and the Strait of Hormuz, Synspective did not restrict or cut off data supply. We maintained 100% continuity for our defense partners tracking strategic assets.

Regulatory Predictability: Anchored under Japanese jurisdiction, our regulatory framework ensures a stable, predictable intelligence supply—insulating India from the sudden policy shifts that affect other global providers.

The Roadmap to Absolute Information Superiority

Scaling the architecture for the conflicts of tomorrow.



Satellites by the late 2020s

Synspective is building a unified geospatial backbone to support synchronized multi-domain operations across the Indo-Pacific.

Strategic Outcome

The reduction of intelligence response cycles from **days to minutes**.

By combining persistent, all-weather SAR with automated analytics, Synspective ensures allied forces maintain the decisive information advantage required to win in a Network Centric operational environment.

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