AIR

RAFAEL
ADVANCED DEFENSE SYSTEMS LTD.

RecceLite™

A Wide Area Scanning System with Data Analysis Features Providing Real-Time ISR

Transforming ISR with Next-Gen Capabilities

In today's increasingly complex and dangerous battlespaces, it is critical to collect high quality day & night multisensory real-time images from Vertical to Stand-off ranges, and to systematically scan large areas. In order to find the needle in the haystack of information the data has to be processed and analyzed in real time to monitor time-critical targets.

RAFAEL addresses these needs with the RecceLite system, enabling Persistent Wide Area Surveillance and Border Monitoring, providing high-resolution, real-time images over a wide coverage area – from both stand-in and stand-off ranges.

The system is composed of three elements: an airborne Pod, an Exploitation Station and a wideband Data Link. This combination enables the provision of intelligence products, based on electro-optical collection with real-time data interpretation tools, allowing the user to find the right intelligence at the right time.

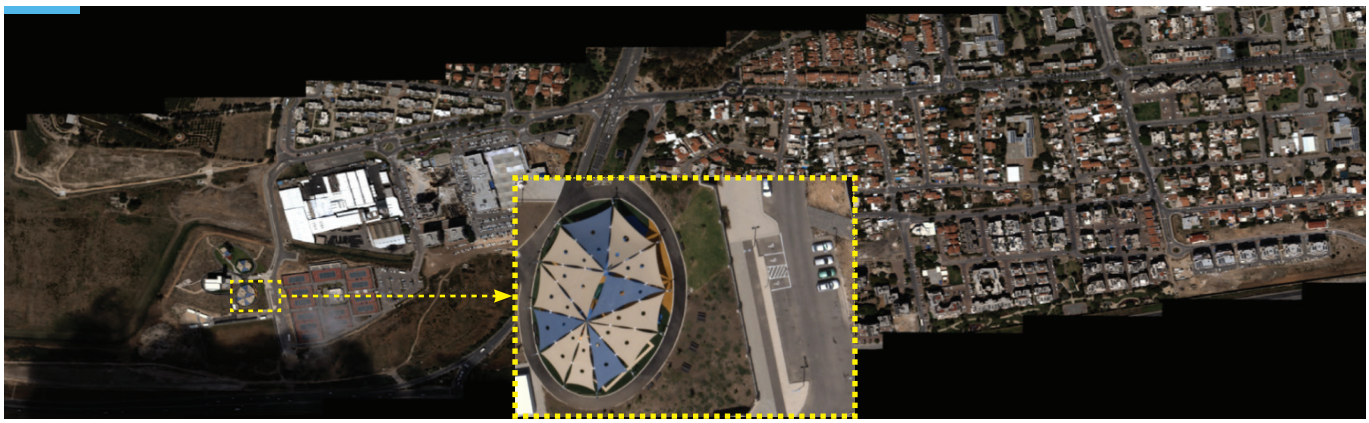
The stand-off capability allows generation of actionable intelligence – without exposing the aircraft and crew to the enemy, and without creating sensitive diplomatic/political issues.

RecceLite is combat-proven, in use by various air forces worldwide, and integrated with a variety of aircraft.

Benefits

- Overcomes limitations of standard EO video payloads with still imagery scanning
- Still imagery vs video provides higher quality with clearer images, enabling better processing, automation and analysis (RecceLite provides both still + video)
- Wide and fast scanning enables simultaneous use of the scanned data by multiple users, unlike traditional video systems which are dedicated to a location/user
- Exploitation Station with real time Data Processing Interpretation tools
- Automatically controlled mission plans can be uploaded to the pod prior to take-off, or uplinked during flight
- Flexible Configuration: the Exploitation Station can be Stationary, Mobile or onboard Aircraft
- Geo-registration – Enables precise topographical and 3D models for intelligence, targeting and planning
- Autonomous pod operation enabling the air crew to focus on missions; the pod can receive command updates from both ground operators and airborne crew

Finding the Needle in the Haystack



RecceLite simultaneously collects high resolution MWIR, SWIR, NIR, and color digital images, and enables wide area scanning with short revisit times. It provides mapping, in-depth still image and motion analysis, and real-time monitoring of time-critical targets within an unlimited field of regard. An assortment of scanning modes (Strip, Spot, Persistent Wide Area, Gate Keeping, Line Search, Mapping, 3D Modeling) provides an effective solution for a range of missions, including counter-IED, HLS, disaster relief, maritime patrol, and border monitoring.

The Exploitation Station which receives real-time images transmitted via a wideband data link, enables multi-source data reception, analysis and integration, real-time mission control and analysis, exploitation management, reporting and dissemination. Smart archiving enables data retrieval for change detection or infrastructure analysis.

Real-time automated computer vision algorithms enhance interpreter capabilities and accelerate exploitation.

Main Capabilities

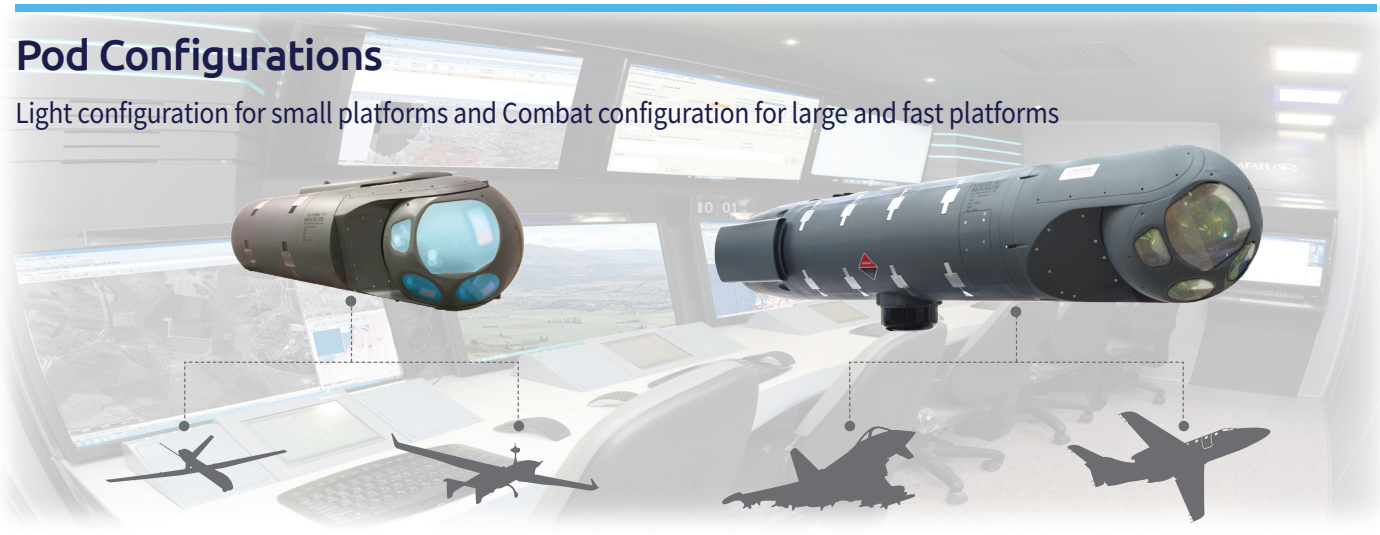
- Systematic large area scanning, image & motion analysis, cyclical continuous scan with short revisit times enabling real-time Persistent Wide Area Surveillance from vertical to stand-off ranges.
- Full motion video.
- Adaptable for variety of platforms: combat, light/heavy aircraft, and UAVs.

Technical Specifications

- Unlimited field of regard.
- Simultaneous multiple sensor coverage of the area.
- Area scan rate: 30,000 km^2/hour (MWIR @30,000 feet with resolution better than 20cm/pix).
- Pod weight: 230 kg.

Pod Configurations

Light configuration for small platforms and Combat configuration for large and fast platforms



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