

NSP-5 TECHNICAL SPECIFICATIONS

SYSTEM SPECIFICATIONS

| | |
|------------------------|--|
| SIZE | DIAMETER: 5.4 IN (13.7 CM) LENGTH: 46.4 IN (117.9 CM) HEIGHT: 6.9 IN (17.5 CM) |
| WEIGHT | 16.5 LBS (7.5 KG) |
| POWER | 130 W |
| FREQUENCY | KU |
| OPERATING ALTITUDE | MODE DEPENDENT UP TO 10,000 FT AGL |
| SENSOR CUING | CURSOR ON TARGET |
| COMMUNICATION | ETHERNET |
| COMMAND & CONTROL | LISA 3D™, LISA DASHBOARD™, AND RADAR CONTROL API |
| IMAGE EXPLOITATION | LISA 3D™ OR EXISTING PED EQUIPMENT |
| STANDARD DATA PRODUCTS | KML, COMPLEX NITF, JPG, PNG, BMP, STANAG 4607 DETECTS, STANAG 4676 TRACKS |

PERFORMANCE DATA

| | | | |
|---------------------------------|-------------|--------------------------|-------------------|
| SAR IMAGING | RESOLUTION: | MAX RANGE: | MAX RANGE PIXELS: |
| | 0.3 M | 16.5 KM | 4,000 |
| | 1 M | 24 KM | 4,000 |
| MOVING TARGET INDICATOR VEHICLE | MAX RANGE: | MAX CONTINUOUS COVERAGE: | |
| | 12 KM | 60 KM² | |
| MARITIME SURVEILLANCE | RANGE: | SWATH WIDTH: | COVERAGE: |
| RAFT: | 12 KM | 12.3 KM | 2,885 KM²/HR |
| FISHING BOAT: | 16 KM | 14.6 KM | 3,670 KM²/HR |
| YACHT: | 27 KM | 24.8 KM | 6,240 KM²/HR |
| CONTAINER SHIP: | 55 KM | 50 KM | 12,600 KM²/HR |
| SUPER TANKER: | 102 KM | 95.2 KM | 24,000 KM²/HR |

CAPABILITY VARIANTS

| | NSP-5(S) | NSP-5(P) | NSP-5(X) |
|-------------------------|-----------------------|-------------------------------|-------------------------------|
| IMAGING | SAR | SAR | SAR |
| CHANGE DETECTION | NON-COHERENT (MCD) | NON-COHERENT (MCD) | NON-COHERENT (MCD) |
| | --- | COHERENT(CCD) | COHERENT(CCD) |
| MARITIME SURVEILLANCE | STANDARD | ADVANCED | ADVANCED |
| MOVING TARGET INDICATOR | STANDARD VEHICLES | STANDARD VEHICLES & DISMOUNTS | STANDARD VEHICLES & DISMOUNTS |
| RESOLUTION (METERS) | 0.3, 0.5, 1, 2, 5, 10 | 0.3, 0.5, 1, 2, 5, 10 | FINE, 0.3, 0.5, 1, 2, 5, 10 |

Performance data assumptions: operating altitude 6kft, speed 80ktas



TACTICAL MULTI-INT SAR/MTI RADAR

Deliver actionable intelligence in real time from tactical Unmanned Aircraft Systems in land and maritime environments.

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RADAR MADE SIMPLE

SIMPLE TO OPERATE



The NSP-5 radar system is simple to operate with IMSAR's Lisa 3D Command and Control (C2) and Processing, Exploitation, and Dissemination (PED) software.

Lisa 3D provides graphical and intuitive tools to quickly and easily perform the following functions:

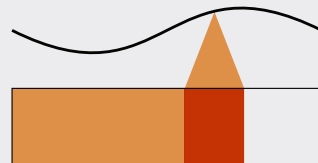
- **Pre-Mission Planning:** Create data collection plans and use them to generate flight plans that can be uploaded to various manned and unmanned flight control systems.
- **Operations:** Monitor and control the radar system; program the radar system to automatically collect SAR, CCD, MTI, or maritime surveillance data; dynamically change data collection plans, flight plans, or data collection modes; and cross cue FMV sensors. Ingest and display real-time data from multiple other sensors, such as AIS and FMV. Perform real-time data analysis to generate actionable intelligence.
- **Post-Mission Analysis:** View and annotate data and export data using the built-in export feature. Run training classes and data forensics on previously collected data.

The NSP-5 can also be controlled through the Radar Control API which enables other software suites to slew the radar to an AOI and immediately begin collecting data, and access data products and system status information.

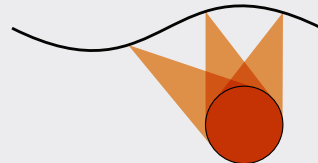
IMSAR's customer support team is available to help whenever there are questions.

OPERATING MODES

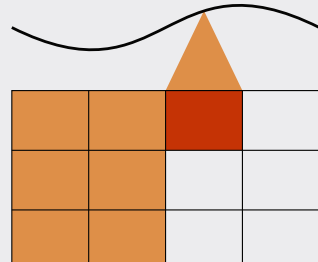
Stripmap - Radar images or monitors a swath of ground parallel to the aircraft's direction of flight.



Spotlight - Radar continuously images or monitors a preselected area of ground as the aircraft flies past or around it.



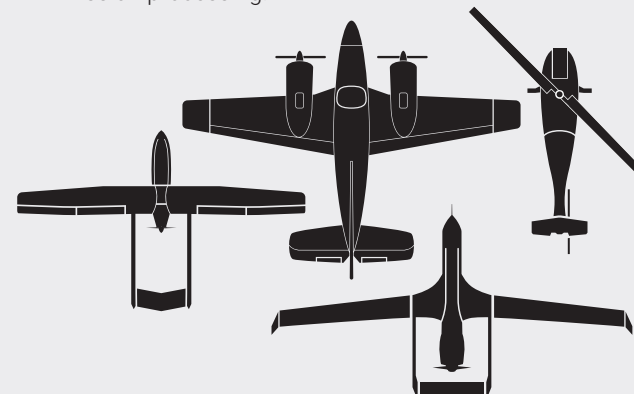
Wide Area - Radar persistently monitors the large area within the radar's field of view for potential targets of interest.



SIMPLE TO INTEGRATE

The NSP-5 is a multimode, low-Size, Weight, and Power (SWaP) radar system in a weatherized pod. The NSP-5 pod requires only power and ethernet to operate. It can be attached to an aircraft with the IMSAR quick connect rail with blind mate connections or by using the MIL-Spec 14" lug mounts. IMSAR also has the in-house expertise to design custom integrations for specific platforms when needed.

The NSP-5 can be connected to the Lisa GCS Ground Processing Server via a datalink, or paired with the Lisa Air or Lisa Air Lite Airborne Processing Server to enable real-time, onboard data processing. Radar data can also be stored onboard the NSP-5 for post-mission processing.



SIMPLE TO UNDERSTAND

Intelligence is everything. The NSP-5 is part of the IMSAR radar ecosystem designed to make it easy to turn radar data into intelligence. It starts with high quality radar data generated by the NSP-5. Then advanced processing techniques are used to create a variety of data products enabling all-weather Intelligence, Surveillance, and Reconnaissance (ISR) and surface search missions. IMSAR's Lisa 3D is an intuitive software tool purpose-built and optimized for radar sensors, with the ability to display

data from complementary sensors like FMV and AIS. In addition, IMSAR radar data products can be output in industry standard formats enabling operators and analysts to use existing tool chains. IMSAR training courses, taught by industry experts, give new and existing users the experience and skills they need to enable mission success.

Go to www.imsar.com for more information about IMSAR's radar capabilities.

