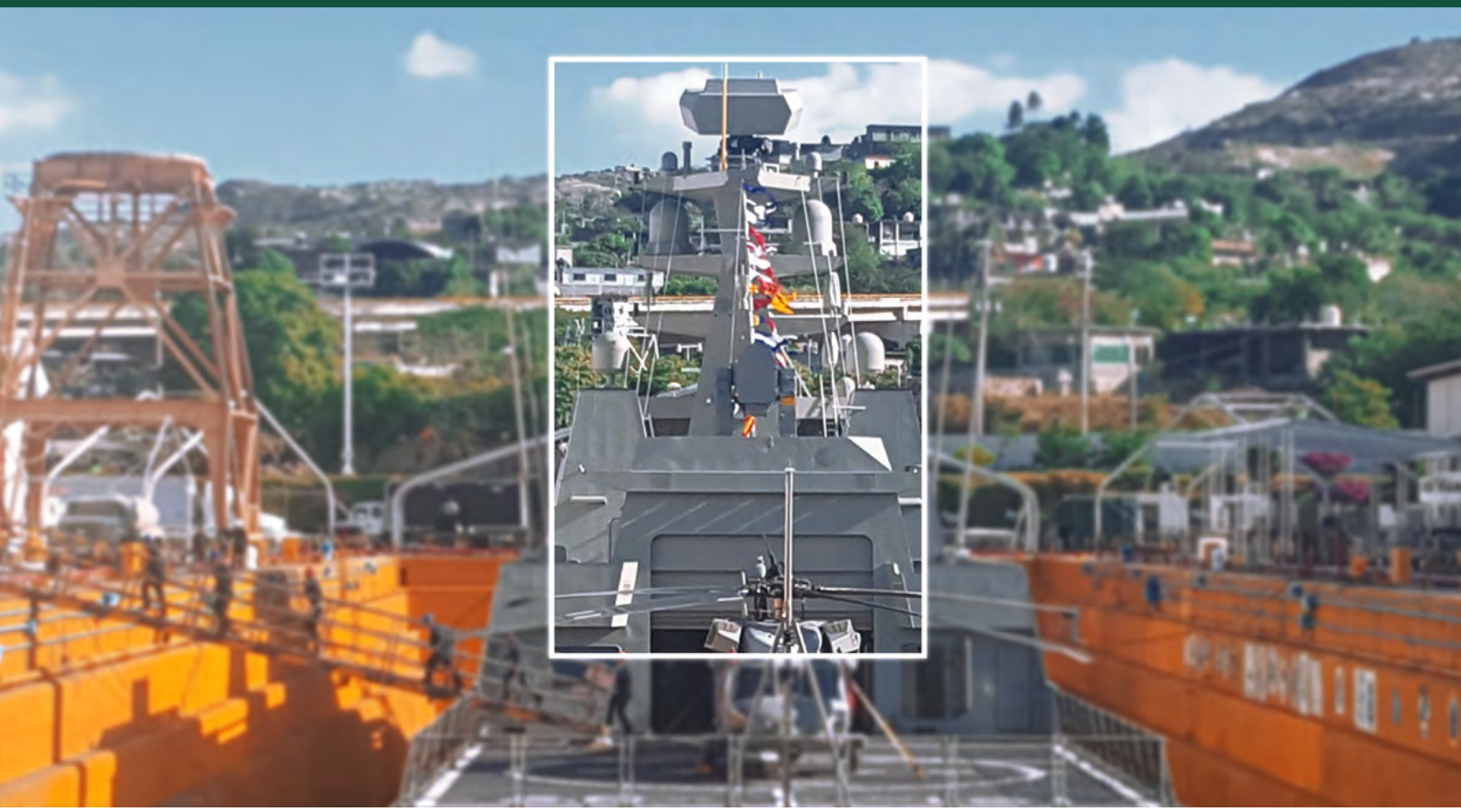

Rigel RESM and RECM Systems

Indra's Naval Radar RESM and RECM systems provide high performance operation to successfully face new electromagnetic scenarios

Indra technology

As fundamental concept of future evolution, Indra's systems are designed according to a modular architecture easily extendable from the same core process, which guarantees growth capability and flexibility. The system is based on Indra's in-house digital reception technology and its modular conception allows easy taylorization to customer requirements.

Critical elements (as DRFM, RF receivers...) are designed and integrated by Indra. It allows to replace or update sub-systems minimizing the effect over the overall system. This sovereignty on the design provides Indra with the full capability for both elements replacing or updating. The obsolescence problem is eliminated from this point of view.

Design sovereignty, modularity and field-proven digital reception are the pillars of Rigel Systems.

Rigel RESM

The Rigel RESM (Radar Electronic Support Measures) system's family constitutes a unique instrument to successfully face the new electromagnetic warfare scenarios.
The Rigel RESM system's family provides high sensitivity detection, analysis, classification and identification of radar signals, as well as high accurate DF measurement within a wide band instantaneous coverage, covering the whole 2-18 GHz frequency range (optional 0,5-40 GHz range, depending on the selected configuration).
The Rigel RESM system's family is based on Indra's in-house digital reception technology, which constitutes the cutting edge technology and represents the core of the RESM systems, resulting in a set of unique characteristics.

High performance RESM-System

- Outstanding warning capability regarding pulsed and Continuous Wave (CW) signals, including Low Probability of Interception (LPI) Radars.
- Robustness to installation.
- Wide band operation for superior
- tactical information, with Probability Of Interception (POI) of 100%, with accurate tracking of targets (depends on selected configuration).
- Very accurate DF measurements useful for accurate targeting operations (depends on selected configuration).
- Advanced deinterleaving algorithms.
- Advanced library matching algorithms for accurate identification.

Field-proven digital reception

- Very high sensitivity for both pulsed and CW signals & equivalent detection range function. Higher resolution and accuracy on both time and frequency domains, allowing significant improvements in radar parameter measurements.
- Robustness in very dense or jamming scenarios due to the capability to handle several simultaneous CW signals without loosing performances.
- Inherent pulse to pulse intra-pulse
- measurement capabilities.
- Tools to record and process signal data, making possible a further Specific Emitter Identification (SEI) thanks to the samples collection for post-processing.

Rigel RECM

The RIGEL RECM (Electronic Attack) system's family provides a platform with self-protection by means of jamming and deception countermeasure techniques against either single or multiple threats that are active on the whole 6-18 GHz frequency band (optional 2-6 GHz range, depending on selected configuration).
The different Rigel RECM configurations can be based on both mechanical or electronically pointing transmitter antennas (depends on selected configuration and ship design and installation constraints).
The Rigel RECM system's family constitutes a unique instrument to successfully face the new electromagnetic scenarios, providing::

Mullti-threat countermeasuring capabilities

- Multi-threat capability.
- Effective power management.

High performance RECM-System

- 360º azimuth coverage.
- Different power configuration available.
- Variable polarization.
- Dedicated RECM receivers for very low
- latency values.
- Very fast response.
- Maximum countermeasure power
- efficiency.
- Transmitter power amplitude modulation capability.
- Three-axes mechanical stabilization (mechanical pointing configuration).
- Radiation inhibition within bearing/
- frequency sectors.

Advanced jamming/deception techniques

- Up to 11 types of jamming modulation, including audio swept capability for jamming techniques.
- Advanced multi-bit DRFM based
- techniques.
- Several jamming operation modes.

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