

RAT 31DL/M **3D DEPLOYABLE LONG-RANGE RADAR**

The RAT 31DL/M is a tactical long-range radar operating in L-Band, specifically designed to support NATO troops in peacekeeping missions. It is the latest distributed fully solid-state radar designed by Selex ES.

It can be deployed on the battlefield as a front line system to monitor and protect territories and assets against all air threats.

In order to perform these tasks in today's challenging worldwide tactical environment, the RAT 31DL/M is highly mobile and does not require any special loading/unloading equipment. The radar is designed for rapid deployment to provide corps with an air defence capability that can move quickly when regrouping. It is equipped with its own electrical power source and is self-sufficient for a long time.

The system acts as an air defence stand-alone Command & Control (C2) Center. It can be integrated in a cluster of some netted RAT 31 family systems (RAT 31SL, RAT 31DL, RAT 31S) reporting to a mobile C2 Center to ensure highly effective radar co-operation via robust radio link communications.

The RAT 31DL/M belongs to the RAT 31 radar family, which was successful in all Selex ES's long-range radar NATO bids in the last 15 years.

The radar architecture is the worldwide unique Multiple Simultaneous Pencil Beams (MSPB). Multiple beams are electronically and independently steered in elevation, both in transmit and in receive. This technology allows innovative and dedicated war-fighting solutions against a wide range of threat sources, such as TBM, ECM and mass raid.

The RAT 31DL/M is compliant with NATO requirements for Deployable Air Defence Radar. It provides the troops and assets with the best protection in out-of-area operations. Monopulse technique in the elevation angle measurements is applied to the targets flying in the wide RAT 31DL/M coverage volume, thus ensuring high-quality 3D target data.

The MSPB architecture provides a large number of transmitted pulses in each beam pointing direction, guaranteeing high clutter suppression in adverse weather conditions in the whole instrumental coverage volume. The most advanced processing techniques are supported by flexible and state-of-the-art data processors.



These features, combined with the ultra-low antenna sidelobes and the advanced ECCM techniques, guarantee an outstanding jamming resistance.

THE SYSTEM

The whole system is housed in two 20ft ISO containers, mounted on two commercial cross-country trucks for land mobility. The main elements are:

- Tactical L-band long-range early warning radar
- Tactical Ballistic Missile Defence radar
- Distributed solid state transmitters/receivers
- Multiple instantaneous and simultaneous pencil beams in transmit and in receive
- Highly mobile and rapidly deployable
- High detection performance in heavy ECM and clutter environment
- Reduced RF signature to counter ARM and ESM threats

TECHNICAL FEATURES

Frequency Band	L-Band
Instrumental range	400Km
Elevation coverage	-2° to 20° for ABT (up to 60° for ATBM)
Ceiling	30.5 Km for ABT
Size	2 load 20' ISO std
Weight	30,000Kg (each single package < 8,000Kg)
Transportability	Aircraft (C-130) Helicopter (CH-47) Road (10 tons std)
Environmental	-40 °C to +50 °C
Set up time	120 min. by 5 persons
SSR/IFF	All available modes
Power generator	24 hour without refueling with system completely operating
Output data protocols	ASTERIX, AWCIES and proprietary

For more information please email infomarketing@selex-es.com

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