SMART-L Early Warning Capability (EWC) is a fully digitally controlled Active Electronically Scanned Array (AESA) type of radar. The 3D Long Range Surveillance radar, applying GaN transmitter and Dual Axis Multibeam receiver technology, is capable of detecting a very wide spectrum of targets: Manned and unmanned Air Breathing Targets, including Stealth Targets and the emerging Ballistic Missile threats. The applied high-end techniques result in a radar with an unrivalled long range performance of up to 2000 km.

3D LONG RANGE AIR AND MISSILE DEFENSE RADAR
- Unrivalled long range performance
- Superior stealth target detection
- Autonomous Ballistic Missile Search and Track capabilities
- Easily upgradable

SMART-L EWC
Superior range performance

www.thalesgroup.com/smart-l
UNRIVALLED LONG RANGE PERFORMANCE
The unique extended long range processing and flexible scan time results in very long range performance. It covers an instrumented range of maximum 2000 km against ballistic missile targets.

SUPERIOR STEALTH TARGET DETECTION
The combination of high quality transmit/receive technology, dedicated waveforms and high clutter suppression algorithms give SMART-L EWC a superior detection performance against very small targets in a severe clutter environment.

AUTONOMOUS BALLISTIC MISSILE SEARCH AND TRACK CAPABILITIES
SMART-L EWC independently finds Ballistic Missile type targets. Following fast track initiation, the ballistic target track is maintained up to zenith. The Ballistic Missile defence capability is based on the extended long range waveform functionality proven in ballistic missile trails in Hawaii (2006) and the “At Sea Demonstration” in the North Sea (2015). Thanks to AESA, Ballistic Missile detection range is even improved significantly by applying forward/backward scanning and staring modes.

EASILY UPGRADEABLE AND PREPARED FOR FUTURE
In traditional radar systems the functionality remains unchanged through its lifespan. However SMART-L EWC is an AESA programmable radar which is characterized by full flexibility. Additional capabilities can be introduced during lifetime according to customer needs. This makes the radar future proof in case of evolving requirements.

MAIN FEATURES
➢ D-band AESA and GaN technology
➢ Dual axis multi-beam with instantaneous monopulse accuracy in azimuth and elevation
➢ Extended Long Range waveform and processing
➢ Instantaneous Doppler processing for the full range, azimuth and elevation coverage
➢ Proven BMD detection and cueing capability (At Sea Demonstration 2015)
➢ Wide elevation coverage
➢ Fast track initiation and active tracking (up to zenith)
➢ Dedicated ECCM techniques
➢ Multipath suppression
➢ Status: under contract

Instrumented limits

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Ballistic missile defence</td>
<td>2000 km instrumented</td>
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<tr>
<td>Air targets</td>
<td>480 km instrumented</td>
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<tr>
<td>Surface targets</td>
<td>60 km instrumented</td>
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<tr>
<td>Minimum range</td>
<td>5 km</td>
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<tr>
<td>Tracking capacity</td>
<td>1000 tracks</td>
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Installation data

<p>| |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Antenna weight</td>
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Technical Characteristics

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Frequency band</td>
<td>D-band</td>
</tr>
<tr>
<td>Update time</td>
<td>5 sec. or shorter (in staring mode)</td>
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<tr>
<td>IFF antenna</td>
<td>Integrated and fit for mode S and S</td>
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