



MULTI-SENSOR WEAPON CONTROL SYSTEM

NA-30S MK2 is a new generation Weapon Control System designed to control modern guns (up to three) against conventional and asymmetric air/surface threats with a reduced reaction time.

NA-30S MK2 is based on a dual-band (X and Ka) naval tracking radar with a stealth antenna design which combines high tracking accuracies with improved range performance. Both X and Ka bands are processed in order to optimise tracking performance according to the targets.

X Band

For search and acquisition purposes, medium-to-long range detection and tracking, and reliable processing in adverse weather conditions.

Ka Band

For close in targets, low flying threats, need for increased accuracies, and DART ammunition guidance.

The Ka band, with its very narrow beam width, is optimally suited for measuring targets at low-elevation, without suffering from multi-path interference.

NA-30S MK2 provides gun control and ammunition guidance. The system can be provided with a dedicated multifunction console or can be controlled by any console within the Combat Management System (CMS).

The Weapon Control System automatically selects the optimum ammunition and firing patterns according to the tracked threats. A set of combined sensors (TV camera, IR cameras and laser) can be mounted on the radar antenna to enable firing assessment and to provide either an alternative or redundant line-of-sight. It is fully compliant with modern international military standards, guaranteeing high reliability and low total cost of ownership.

ARCHITECTURE

The system minimizes indoor space since it is composed of a reduced number of sub-units, including:

- X-Band solid-state high power transmitter and processor unit
- Computer and power distribution unit to provide control of the antenna group, multi-tracking, ballistic calculation and power within one cabinet.

NA-30S MK2

The above deck system comprises an outdoor, modular stealth solution including:

- Dual-band tracking radar with embedded Ka transmitter and receiver
- Optional optronic sensor suite, TV, IR and laser, mounted to provide alternative line-of-sight (LOS), scene monitoring and kill assessment.

MAIN OPERATIONAL FUNCTIONS

NA-30S MK2 performs the following tasks:

- Dual-band radar and optronic tracking
- Gun fire control with automatic coordination of different weapons for a combined reaction
- Automatic engagement of evaluated priority target up to firing action
- OTH (Over-The-Horizon) tracking features, applicable in the presence of environmental conditions such as RF ducting, through the use of specific waveforms (X-band)
- Reduced reaction times to allow detection, tracking and artillery response with high HIT Probability particularly against sea skimmer/high diving supersonic missiles and asymmetric threats

- DART ammunition guidance
- The NA-30S MK2 Fire Control System is optionally provided with CWI illumination for semi-active missile guidance, HRRP and panoramic surveillance features.

STATUS

NA-30S MK2 is a new generation Gun Fire Control System, which combines a well proven history in the design of Fire Control Systems with the need to provide a cutting-edge innovation system.

INSTALLATION DATA

ANTENNA GROUP (ABOVE DECK)	
Dimensions	(h) 1500mm
Diameter	1300mm
Weight (EO sensors excluded)	700kg
SAFETY SWITCH	
Dimensions (h w d)	180x133x100mm
Weight	2kg
COMPUTER POWER DISTRIBUTION UNIT	
Dimensions (h w d)	900x720x560mm
Weight	300kg
HP SOLID STATE TRANSMITTER AND PROCESSOR	
Dimensions (h w d)	1900x800x560mm
Weight	350kg

