



# Anti-Ship Missile Defense

## Joint ASMD Solution from Terma and Chemring

Terma and Chemring Countermeasures have developed a complete soft kill solution for surface unit defense, through integrating the C-Guard Defensive Aid Suite and CENTURION fully trainable 130mm launcher capable of using the full range of current countermeasures as well as new rounds to meet tomorrow's threats. This scalable system is a step change in ASMD capability, offering the maritime commander greater operative awareness, sustainability, flexibility and survivability in the contemporary and future battle space.

### SYSTEM APPROACH

C-Guard effectively protects against coordinated multi-threat / multi-directional attacks by missiles and torpedoes. C-Guard's rapid response and constant threat evaluation is key in building a multi layered 360° defense to defeat

multiple coordinated attacks. C-Guard is integrated with major Combat Management Systems, and more than 200 C-Guard systems are currently in operation worldwide.

By further development of the C-Guard's System Control components to fully benefit from the trainable capability, and with adaptation of the CENTURION to Launcher Control components that already exists in the C-Guard solution, we have reduced the gap between the fixed and the trainable configuration and introduced a true upgrade path for both new and existing C-Guard customers to the benefits provided by the fully trainable capability.

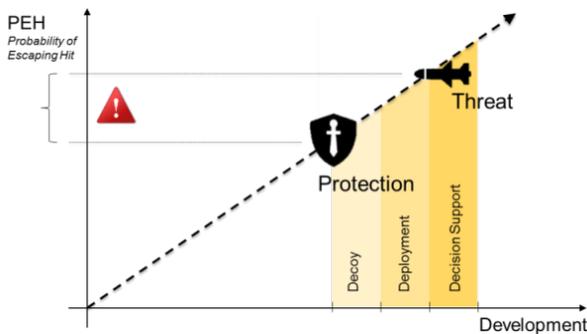


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## CORNER STONES OF EFFECTIVE ASMD

Informed Decision Support, accurate Deployment and effective Decoys are the cornerstones of effective ASMD. The combined system solution offered by Terma and Chemring delivers a step change in soft kill capabilities and provides the maritime commander with information to continuously assess platform defense and to provide a balanced response that breaks the ASM kill-chain, deploying the right DECOY in the right POSITION at the right TIME, enabling improved decoy effectiveness and increased ship survivability.



## DECISION SUPPORT

The threat posed to the maritime commander from the Anti-Ship Missile (ASM) in the contemporary and future battle space is dynamic, complex and demanding, requiring maritime units from patrol vessels to large combatants to be agile in their capability to rapidly step through threat detection to threat response. C-Guard provides the maritime operator with continuous situational awareness and informed decision support. When a threat is detected, the system provide a rapid response and automatically steps through to threat response, while keeping the operator on the loop, able to veto at any stage.

## DEPLOYMENT

The fixed launcher provides capable protection in the first stages of an attack when the system has full loadout, but throughout an engagement, if the loadout is not replenished, the most favorable tube direction may not be available. Terma mitigates this situation by having more tubes in the same direction.

With the trainable launcher the tubes are turned towards the most favorable direction for each round prior to launch, and the elevation enables countermeasure deployment directly into the range gate of the ASM seeker to optimize effectiveness.

The trainable capability optimizes missile countermeasure performance in the AAW domain, whilst also offering a hard point for launching a range of off board expendables to provide capability in ASW, ASuW and C4ISR warfare disciplines.

## DECOY

C-Guard relies on combat proven non-proprietary 130 mm NATO decoy rounds. With more than 500 Decoy Launching Systems in service relying on the 130 mm ammunition, the system offers competing supply sources, efficient cost and future development of new types of decoy ammunition. The CENTURION launcher, as well as using current in service rounds, underpins the use of a range of new decoys, which complements the trainable capabilities to support further improved countermeasure strategies.



Many solutions from one system; fixed, trainable, combination or flexible.

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## UPGRADE PATH

C-Guard may be deployed on naval platforms using any combination of the existing fixed launchers and/or the CENTURION fully trainable launcher. Once the C-Guard is deployed on a platform as a backbone supporting both fixed and trainable capability, the CENTURION may be used as a flexible mission capability which is cross decked to enhance capability as the mission demands.

The combination of fixed and trainable launchers offers increased capability and flexibility to the maritime commander enabling prioritization of decoy load out to maximize precision decoy placement.

## ROUNDS OFFERED BY TERMA

The Terma / Chemring co-operation also means that Chemring's range of rounds is now available to C-Guard customers through the Terma representatives.

## MORE INFORMATION

[www.terma.com](http://www.terma.com)

[www.chemringcm.com](http://www.chemringcm.com)

Upgrade Path:

