

## The Guardian™ System

### The proven Northrop Grumman Guardian™ System is ideally suited for use on legacy aircraft

- The Guardian™ System provides 360° protection against a wide range of missile threats. When Guardian™ detects a MANPADS launch, it tracks the incoming missile, then uses a laser beam to jam the missile's guidance system, causing it to miss the target aircraft. The entire process occurs in approximately two to five seconds and requires no action on the part of the aircraft crew.
  - The Guardian™ System includes a multiband laser pointer/tracker and an ultraviolet missile warning sensor. The system is contained almost entirely in a single pod that mounts to the underside of the fuselage. The total Guardian™ system "flyaway" weight is approximately 550 pounds. The Guardian™ pod is a low-profile package, protruding just 18 inches into the air stream.
  - The Guardian™ System is the role fit version of the proven AN/AAQ-24(V) DIRCM system in use today protecting hundreds of Department of Defense, VIP and other military aircraft around the world.
  - No measurable impact to aircraft performance and fuel burn as demonstrated from data collected while operating aboard MD-10 airliners – *Totally autonomous operation.*
  - Demonstrated ease of pod installation on modified aircraft allows the system to be placed aboard in as little as 10 minutes
- Ideal for aircraft going into high threat areas.
  - Low impact to operators/maintainers with no costly tools or unusual training required.
    - Typical maintenance requires no more than simple cleaning of windows on pod
    - Demonstrated safe for use with no interference to other onboard systems
    - Aircraft modification to accept pod can be easily accomplished during normal heavy maintenance
  - The Guardian System™ is supported through existing logistics programs
    - Internal components are interchangeable with AAQ-24

**The Guardian™ System was successfully evaluated while operating on MD-10 aircraft in revenue service in conjunction with the DHS Counter-MANPADS Phase III Cargo Program**

Major program highlights include:

- Modification of 11 MD-10 aircraft
- Production of 12 Northrop Grumman Guardian™ Systems
- As of 1 March 2008 the Guardian system amassed 22,432 operating hours with 4,749 sorties



**B-747**



**MD-11**



**MD-10**

Northrop Grumman has over 40 years of experience designing, developing and producing systems with demonstrated capability to defeat the MANPAD threat. Our DIRCM system is currently deployed in various configurations on numerous aircraft worldwide.

The Northrop Grumman team continues to expand with the interest and participation of additional partners, logistics support providers, and critical component suppliers.

**For more information, please contact:**

Northrop Grumman Corporation  
 600 Hicks Road  
 Rolling Meadows, IL 60008-1098  
 Director, Commercial Aircraft Protection  
 Phone: (224) 625-4252  
 Fax: (847) 590-3143  
 e-mail: ProtectingAircraft@ngc.com

**Physical Characteristics of the Guardian™ System**

Hardware	Four Line Replaceable Units
Weight	Flyaway weight is approximately 550 lbs (includes Pod weight and weight of aircraft modifications)
Size	Pod Dimension 93" x 32" x 18"
Power	Normal ready-state power draw 2,800 watts steady state
Drag	Computational fluid dynamics analysis demonstrates aerodynamic effects to be negligible on wide-body aircraft

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

*Specifications and features subject to change without notice.*

© 2012 Northrop Grumman Systems Corporation

All rights reserved.



DS-367-VFB-0211  
 A330: ES20100444  
 ES-DSEA-10-10378  
 2012 RM Graphics

**THE VALUE OF PERFORMANCE.**

***NORTHROP GRUMMAN***