



Raytheon engineers develop innovative solutions to some of the world's most demanding challenges across land, air, sea, space and cyberspace. Each year at the Excellence in Engineering and Technology Awards, Raytheon recognizes individuals and teams whose innovations, processes or products have a substantial impact on the success of our customers.

# Excellence in Engineering

## NoDoubt® Performance

Mission Assurance and NoDoubt performance, values essential to Raytheon's operational and financial success, are also integral to our citizenship commitment. Our Engineering, Technology and Mission Assurance team works aggressively at every organizational level to improve our products and processes. We drive this approach with a broad range of proprietary tools and internal and external metrics, including:

### RAYTHEON SIX SIGMA (R6σ®)

R6σ is our disciplined, knowledge-based approach designed to increase productivity, grow the business, enhance customer satisfaction and build a company culture that embraces all of these goals. Currently, we have more than 1,050 trained R6σ Experts and approximately 47,400 qualified R6σ Specialists.

### CAPABILITY MATURITY MODEL INTEGRATION (CMMI®)

Raytheon continues to drive this nationally recognized process improvement measurement approach throughout the company. The CMMI model provides organizations with the essential elements of effective processes, as established by the Software Engineering Institute (SEI) for process maturity in hardware, systems and software engineering. In 2008, Raytheon's Integrated Defense Systems business unit achieved CMMI's highest rating, Level 5, joining Raytheon Network Centric Systems, which reached the milestone the previous year.

### TECHNOLOGY SOLUTIONS

Raytheon's success depends on technological innovation. Knowing this, we systematically cultivate a mindset of openness to new ideas, flexible collaboration, and continual pursuit of new and better ways to do things. The result has been a stream of large and small breakthroughs that have repeatedly enabled us to meet and exceed our customers' expectations. Recent examples include:

#### Controlled Impact Rescue Tool

Under the headline, "A Concrete Smasher For Rescue Crews," *Popular Science*® described Raytheon's Controlled Impact Rescue Tool (CIRT) as a fast way to reach victims in a collapsed building. CIRT's innovative design uses shock waves to pulverize concrete, enabling it to shatter a concrete wall in 13 minutes, compared with more than 30 minutes for conventional methods. In situations where every minute counts, this difference can save lives.

#### SM-3 Satellite Intercept

One example of Raytheon innovation captured worldwide attention in February 2008 as we played a pivotal role in the successful intercept of a non-functioning satellite. The company's Standard Missile-3 intercepted the target 153 miles over the Pacific Ocean. Our Sea-Based X-band radar tracked the satellite prior to the missile engagement and performed the hit assessment afterward. Throughout the process, Raytheon engineers worked closely with our customers to ensure mission success.

### Active Protection System

Raytheon's Active Protection System (APS) ranked #8 among *TIME*® Magazine's "50 Best Inventions of 2008." *TIME* described APS as "Star Wars for soldiers," noting that by protecting soldiers from short-range attack, it also enables the Army to develop vehicles requiring less armor. APS uses vertical launch technology to intercept rocket-propelled grenades or anti-tank guided missiles coming from any direction — "hitting bullets with bullets" through an innovative "pop and pitch" approach whereby the interceptor launches (pops up) vertically from the vehicle, pitches over, then intercepts and destroys the threat while blowing debris from the intercepted weapon downward toward the ground. *TIME*'s Best Inventions citation reflects our commitment to delivering the very best force protection technology to our men and women in uniform.



**ET&MA**

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Engineering,  
Technology and  
Mission Assurance



**Raytheon Certified Architect**

The Raytheon Certified Architect Program (RCAP) focuses on providing our customers with the expertise needed to support their long-term transformational goals.