

Advanced Gun System (AGS)

AGS Gun And Magazine

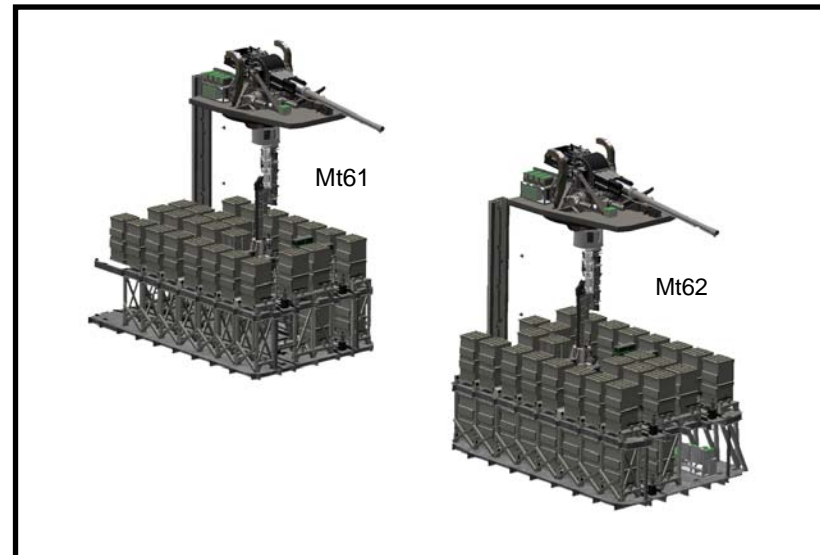
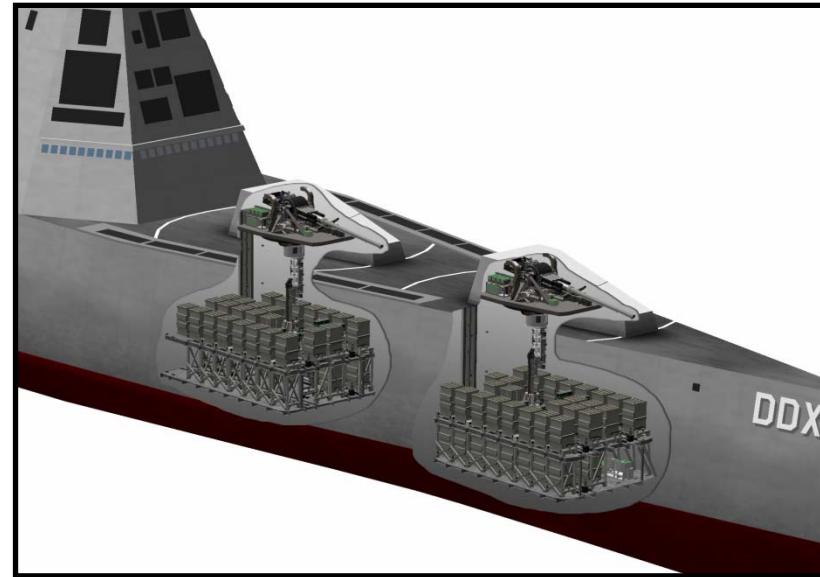
*J.A. Kidwell
24 April 2008*



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AGS Background

- ◆ Mission:
 - Destruction, interdiction, suppression and other fire support missions to support ground and expeditionary forces
- ◆ Platform:
 - DDG1000
- ◆ Employment:
 - Engage enemy land targets at long range with precise, high volume fire support
- ◆ Description:
 - 155mm automated gun system which includes:
 - ★ Fully Automated magazine
 - ★ Unmanned gun mount
 - ★ GPS guided projectile
 - ★ Pallet (transport & storage)
- ◆ Contractors: BAE Systems, GDATP, LMCO

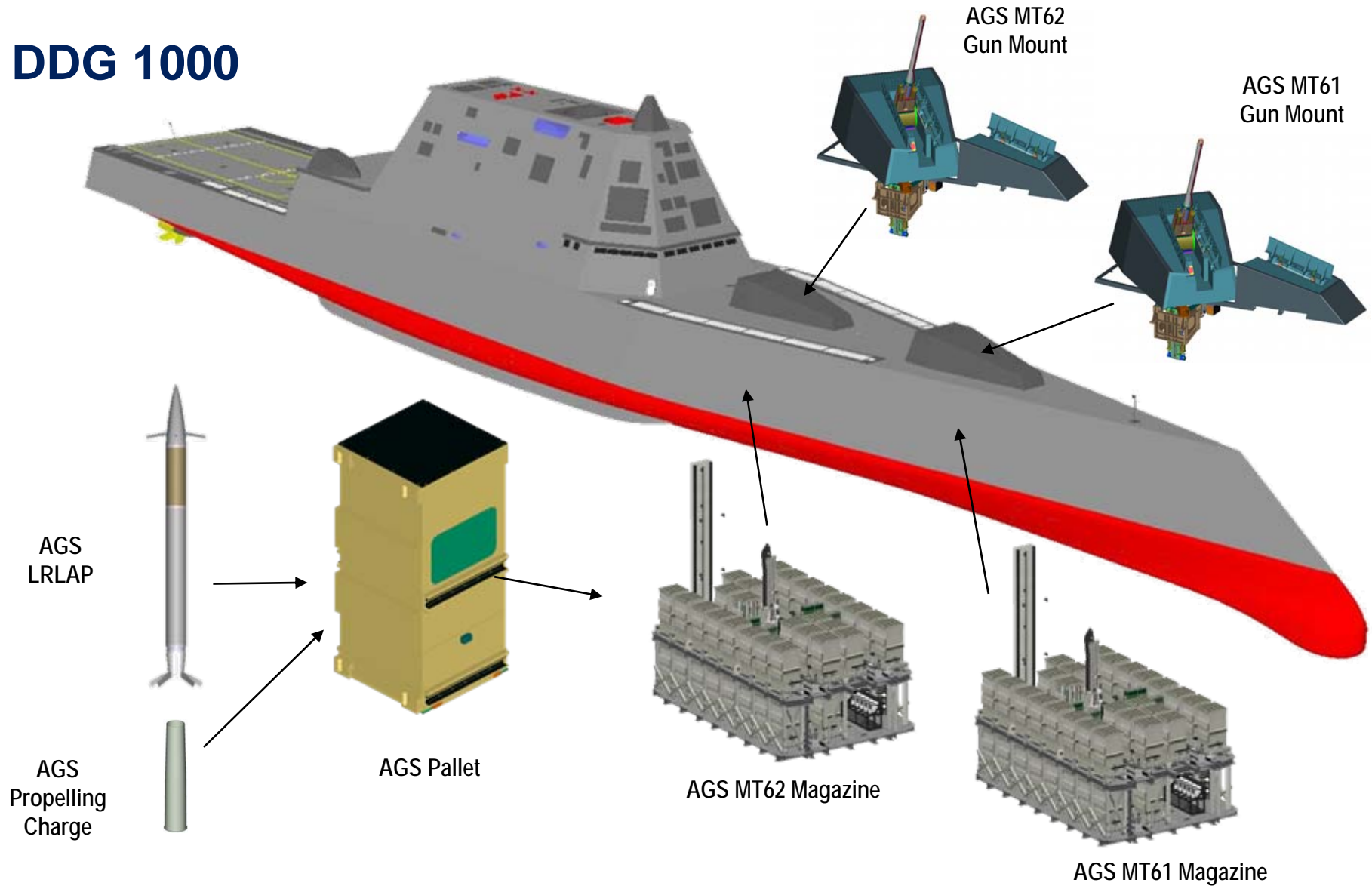


AGS Key Requirements

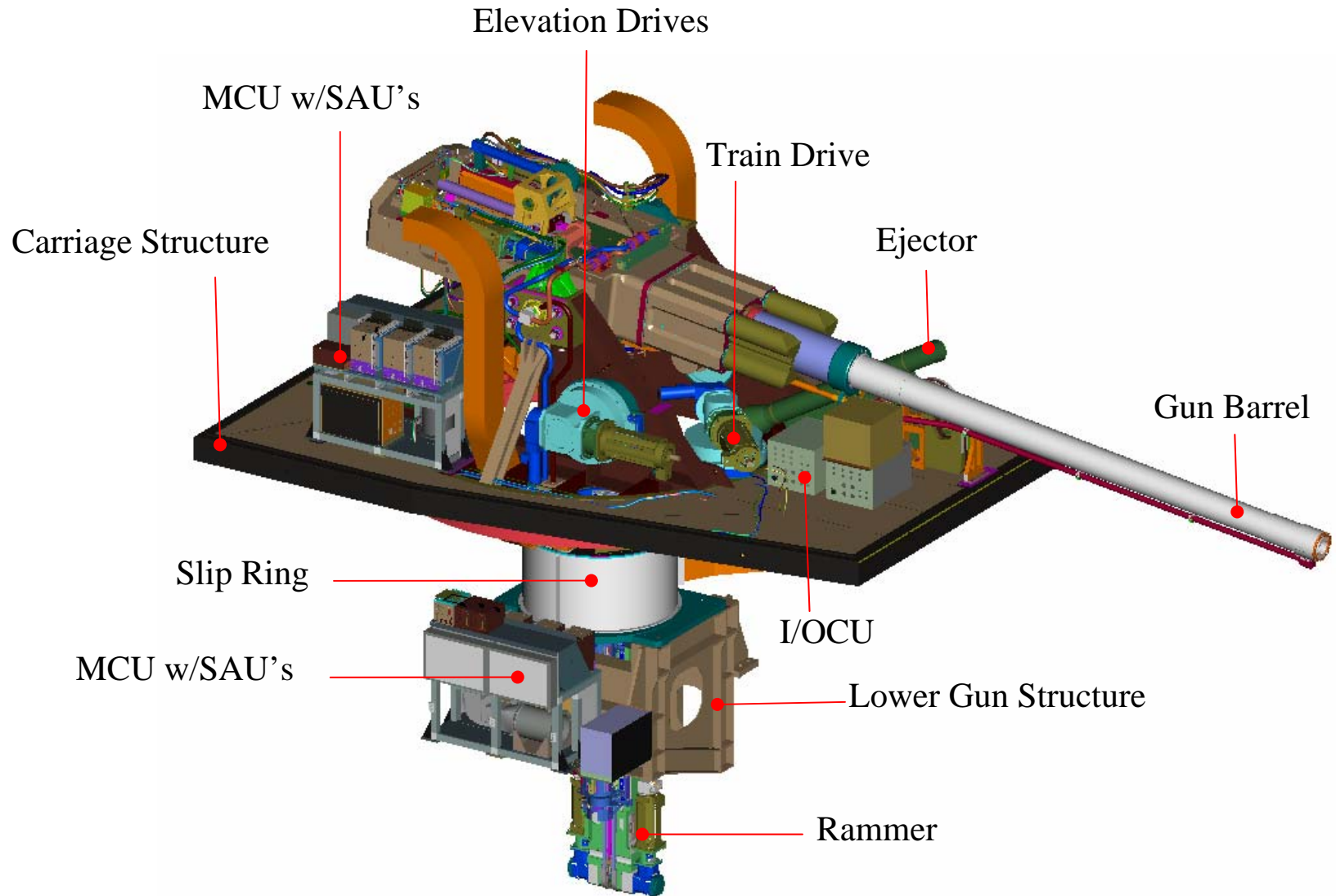
(U) Key AGS Element Performance and Operational Requirements		
Parameter	Performance Requirement	AGS Design Features
Magazine Capacity	600 LRLAP rounds per ship (minimum).	8-Round Pallets and Capacity for 75 Pallets (minimum).
Signatures (RCS and Infrared [IR])	Use design practices that minimize ship signatures.	Low signature shield design for gun mount – hides the barrel eliminating the major RCS signature source for AGS. AGS baseline incorporates ship-level design guidance concerning signature reduction.
Maximum Land Attack Range	> 63 nautical miles (nm).	155 mm, 62 Caliber Gun and Rocket Assisted, Guided, Projectiles
Max. Rate-of-Fire/Sustained Rate-of-Fire	10 rounds/minute	Fully Automated Magazine and Liquid Cooled Barrel
Accuracy (Land Attack)	Classified.	LRLAP has precise targeting by using a Global Positioning System (GPS) guidance system with a backup Inertial Navigation System (INS) guidance system.
Lethality	Provide equivalent lethality to that of current 155 mm gun M795 ordnance.	Arena tests conducted confirm performance.
Multiple Rounds Simultaneous Impact	Provide MRSI capability of 6 LRLAP rounds within 1 sec. from 36 nm to 67 nm.	AGS will be capable of achieving the specified MRSI effect with its LRLAP guided projectile.
Replenishment Modes	At-sea or in port.	Design enables at-sea and in port replenishment of AGS pallets

ADVANCED GUN SYSTEM MAJOR COMPONENTS

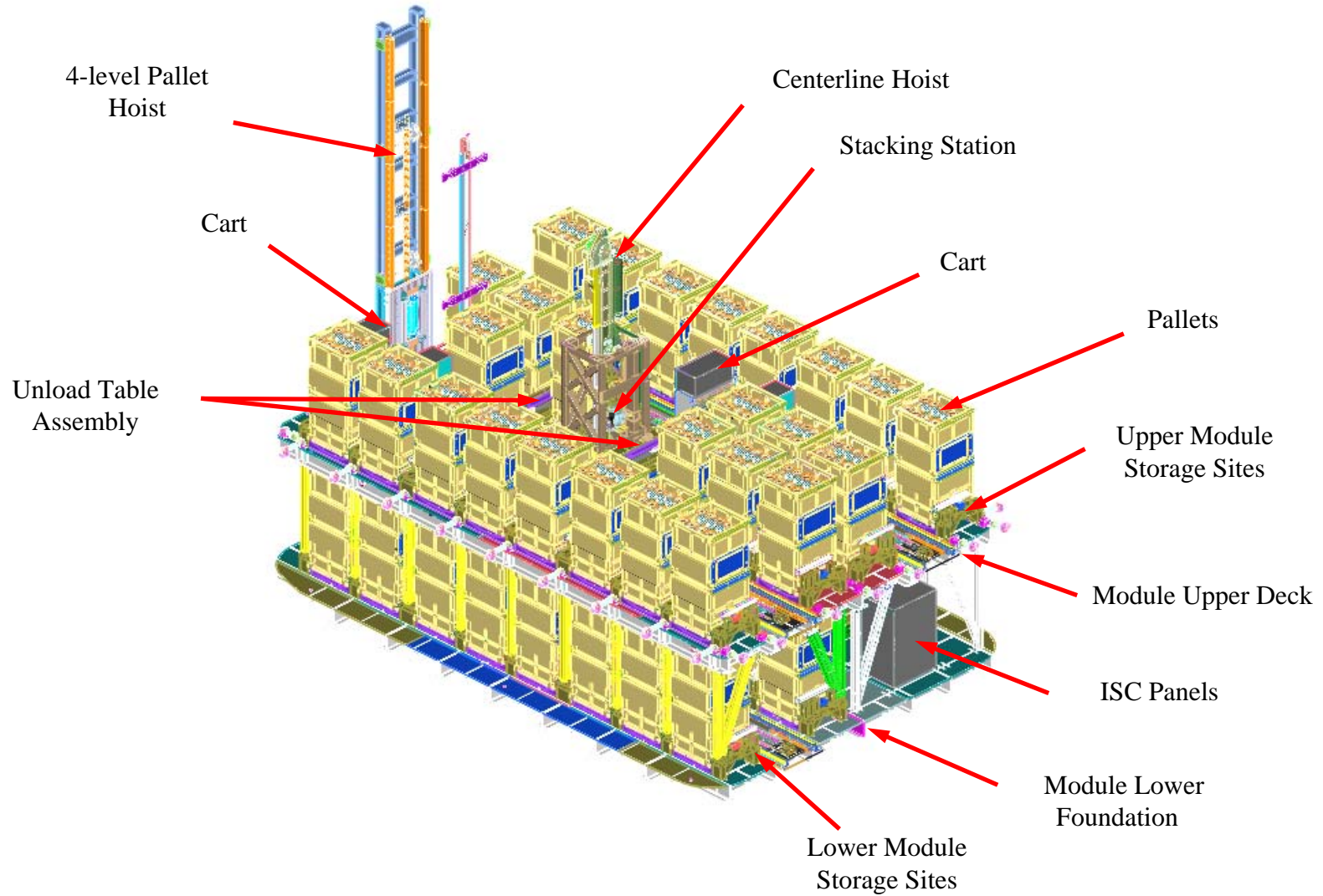
DDG 1000



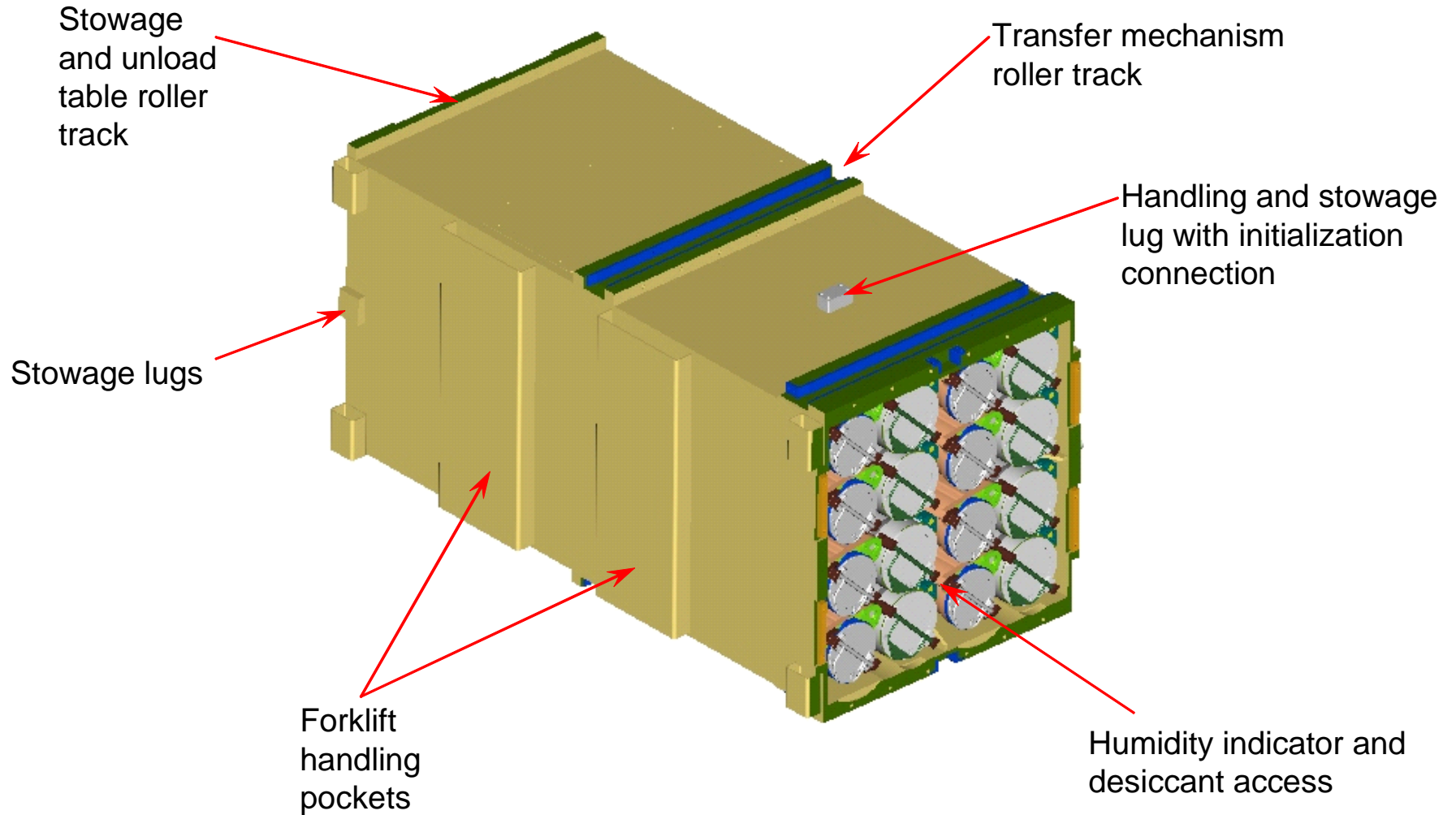
AGS Gun Mt Overview



AGS Magazine Overview



AGS Pallet Overview



Advanced Gun System (AGS) & Magazine



Accomplishments

Component testing to validate design

Gun and Magazine single axis testing (SAT), multi-axis testing (MAT), and factory acceptance testing (FAT) complete

Gun mount and magazine integrated testing at Dugway, UT Land-Based Test Site

Verified maximum rate of fire of 10 rounds per minute

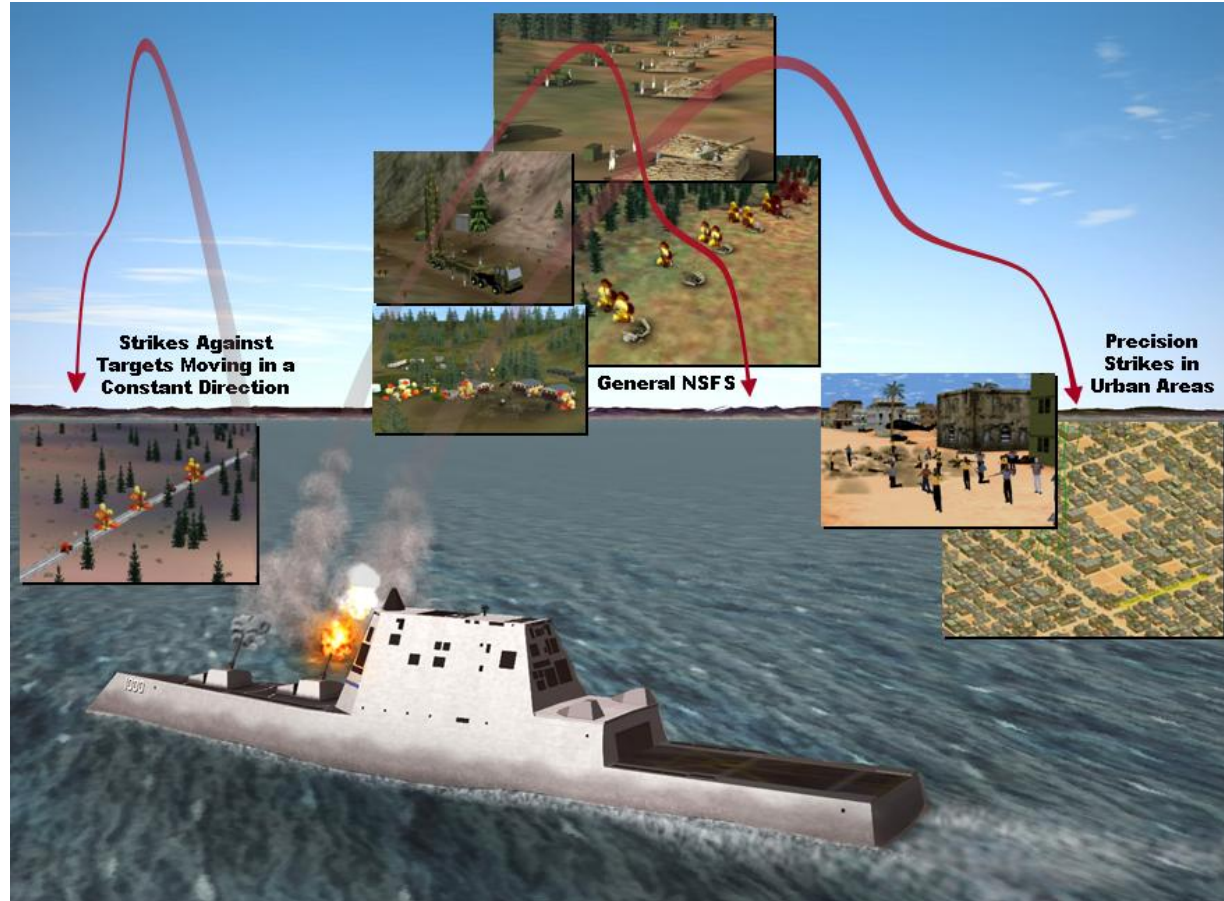
Verified maximum rate of fire in 8-round bursts

Verified magazine capable of unloading all 8 complete rounds from pallet in 45 seconds or less

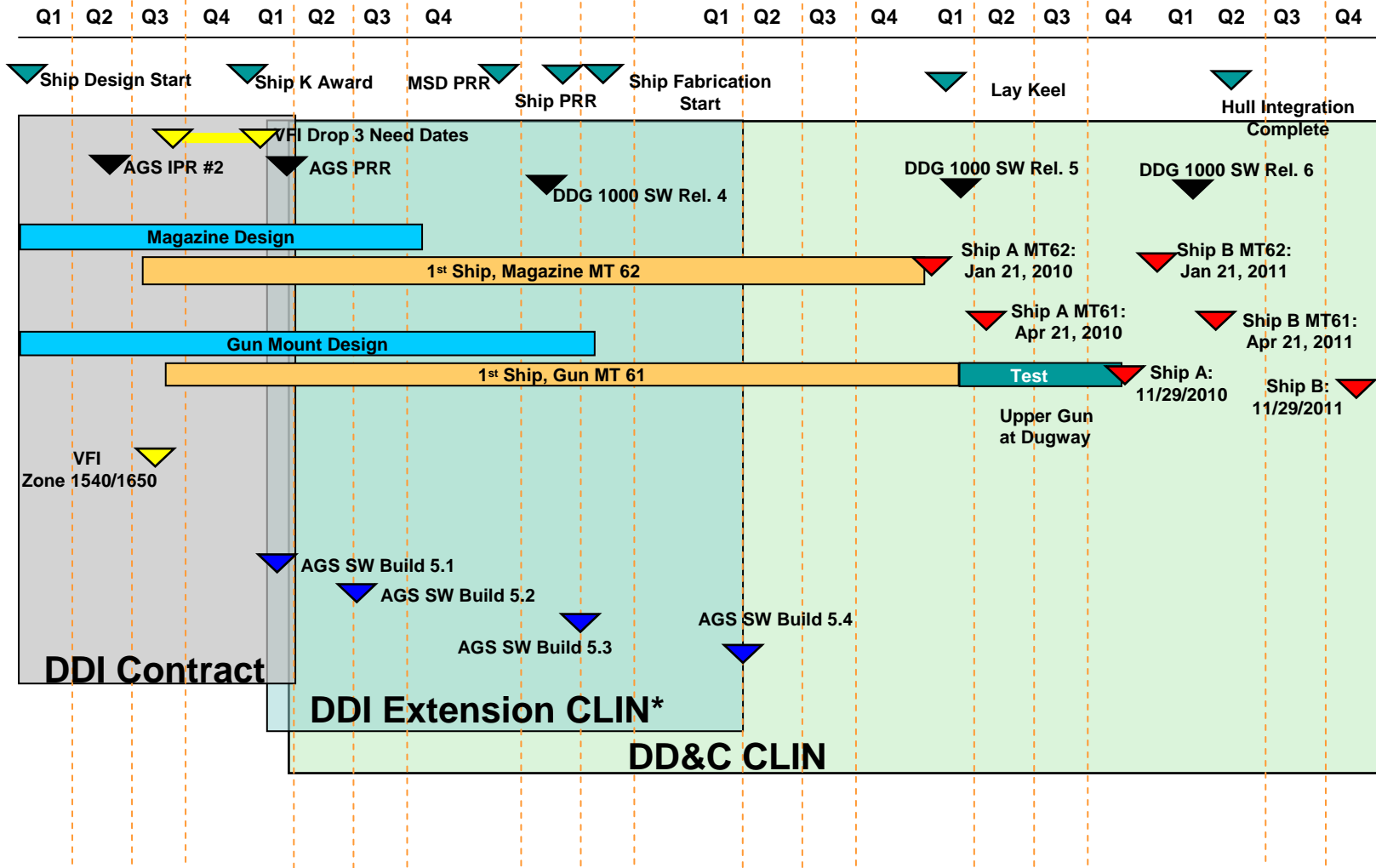


AGS Fire Control

- ◆ Provides a set of services to support the planning and execution of EAGS engagements
 - Estimation of number of rounds and estimated effectiveness
 - Determination of target aim points and fuzing
 - Calculation of firing solutions
 - ★ Guided and unguided projectile trajectories
 - ★ Gun pointing angles
 - ★ Time of flight
 - ★ Terminal conditions
- ◆ Supports up to 6 round AGS Multiple Round Simultaneous Impact (MRSI) engagement execution



AGS Program Schedule



* Minimal effort extends through Sept 2013

AGS Summary

- Rapid Response
- Will Deliver Precision, High Volume Fire In Support Of The Warfighter
- High Reliability
- Major Technologies Demonstrated Through EDM

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