



DAHLGREN

NAVAL SURFACE WARFARE CENTER · DAHLGREN DIVISION

**MK 38 MOD 3 MGS Qualification Status
Presented to
NDIA Armaments Forum
Fredericksburg, Virginia**

3 May 2017

*GUN & ELECTRIC WEAPON
SYSTEMS DEPARTMENT (E)*



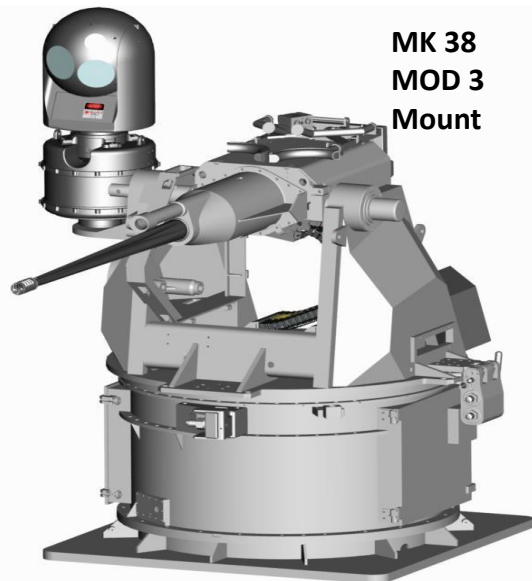
**Presented By:
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Briefings Outline

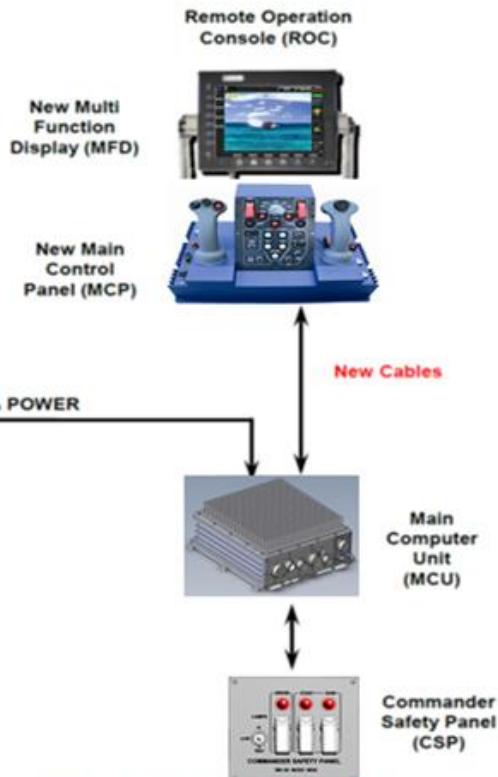
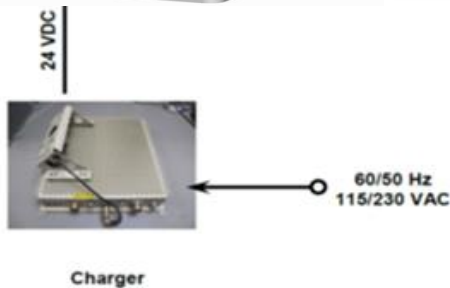
- MK 38 MOD 3 Description
- MK 38 MOD 3 Qualification Test
- Key Program Events
- Summary



MK 38 MOD 3 Description



**MK 38
MOD 3
Mount**



• MK 38 MOD 3 Components

- MK 38 MOD 2 Mount
- Toplite 2P Sensor
- MK 38 MOD 2 CU
- 2 New Cables
- Main Gun – 25mm M242
- New Control Console (MFD + MCP)
- MCU
- Charger Unit

MK 38 MOD 3 Qualification Tests

- GT-1 Train Performance
- GT-2 Elevation Performance
- GT-3 Ammunition Handling (By Similarity to MK 38 MOD 2)
- GT-5 Remote Safe and Arm
- GT-6 System Safety Demonstration/Inspection
- GT-7 Wave Loading Analysis (By Similarity to MK 38 MOD 2)
- GT-8 Maintenance and Manning (By Similarity to MK 38 MOD 2)
- GT-9 Stabilization (By Similarity to MK 38 MOD 2)
- GT-11 Accuracy (By Similarity to MK 38 MOD 2)
- GT-12 Shipboard Vibration
- GT-13 Shipboard Shock (ROC Only-Lightweight Shock)
- GT-14 Storage Temperature
- GT-15 Operating Temperature
- GT-16 Humidity
- GT-17 Water Intrusion (Drip) (ROC & Battery Charger Only)
- GT-18 Salt Fog (By Similarity to MK 38 MOD 2)
- GT-19 Dust (By Similarity to MK 38 MOD 2)
- GT-21 Reliability and Tactical Life (By Similarity to MK 38 MOD 2)
- GT-22 At-Sea Evaluation (PB-777)
- Human Factors Evaluation

No safety-related
issues

- Chesapeake Test Range – MK 38 MOD 3
 - 25-mm M242 Main Gun Tested
- Target - 8'x8' Stationery Floating Target
- Test Scenario- Maneuvering & Variable Speed (2500 yd – 500 yd)



- Program Start – Dec 2015
 - USN Safety Board (WSESRB) – Approves Qualification Plan – Jan 2016
- Qualification Testing – Jan 16 – Apr 17
 - Test matrix Include Firing after each Test
 - At-Sea Operational Suitability Test Aboard PB777– Jun & Sept 2016
 - Quick-Look Qualification Report – Nov 2016
- Safety
 - Safety Assessment Report (SAR) to WSESRB – Dec 2016
 - WSESRB Concurrence for Shipboard Use – Feb 2017
 - PEO IWS-3C Element Certification – 1 May 2017
- MK 38 MOD 3 -1st Ship Install July 2017

Questions

Si Vis Pacem, Para Bellum

