



Recent Experience of US Safety Testing of Foreign Ammunition

Roy Kelly
TransAtlantic Group

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Foreign Items Tested

1. 40mm Practice Cartridge, MK 281 MOD 0 and MOD 1
 - Tested at Aberdeen (APG), NSWC Crane (MOD 0) and Rheinmetall Germany (MOD 1)

2. 40mm Practice Cartridge, M1110
 - Tested at Rheinmetall (Germany) and NTS Camden, AR

3. Diversionary Stun Grenade, MK 13 MOD 0
 - Tested at NSWC Dahlgren, Rheinmetall and NTS Camden

4. 66mm IR Screening Smoke, MK 1 MOD 0
 - Tested at NSWC Dahlgren and Rheinmetall (Germany)



40mm Practice Cartridge MK 281 MOD 0 and MOD 1



- ❑ Testing started in 1999, completed in 2002 (MOD 0)
- ❑ FCT and USMC Funding



40mm Practice Cartridge M1110



- ❑ Testing started in 2006, completed in 2009
- ❑ FCT and USMC Funding



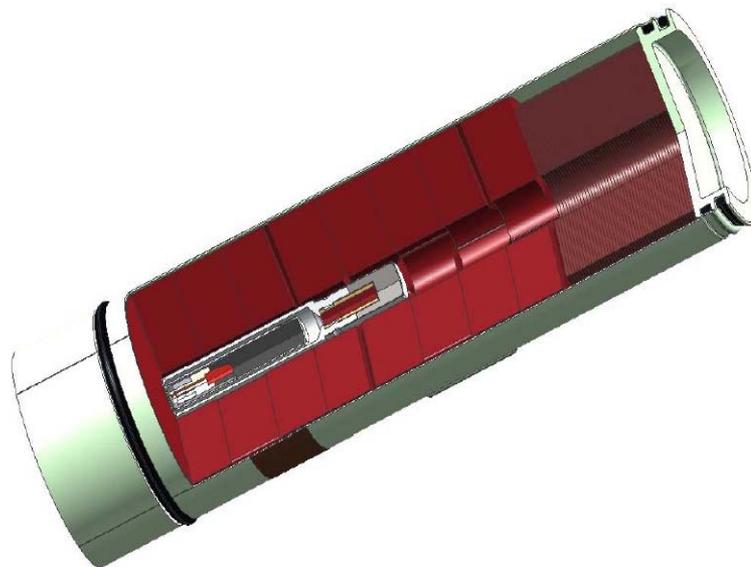
Diversionsary Stun Grenade MK 13 MOD 0



- ❑ Testing started in 2006, completed in 2008
- ❑ USN and USSOCOM Funding



66mm IR Screening Smoke MK 1 MOD 0



- ❑ Testing started in 2006, completed in 2009
- ❑ USMC Funding





US Government Agencies

- ❑ **NSWC Dahlgren and Crane**
 - ❑ **Technical and Contractual Support**
- ❑ **NOSSA Indian Head**
 - ❑ **Approval of Foreign Energetic Materials and IHCs**
- ❑ **USMC Quantico**
- ❑ **DDESB – Safety Approvals**
- ❑ **WSESRB – Safety Approvals**
- ❑ **DCMA Southern Europe**
 - ❑ **Quality and FAT Support**
 - ❑ **Transportation to USA from Foreign Contractor**



US Contractor Test Facilities



National Technical Systems (NTS), Camden AR



- MIL-STD-2105 / STANAG**
- Fast Cook-Off**
- Slow Cook-Off**





Foreign Contractor Test Facilities

Testing Center Unterlues (EZU), Germany



Certified to ISO 9001:2000 and AQAP 110



Some of the Changes since 2000

- Defense Acquisition System Updates**
 - DODI 5000-02**
- Insensitive Munitions Updates**
- More severe Testing required, for example Helicopter Vibration Testing**
- Increased Attention to Design for Demilitarization**
- Increased Attention to Life Cycle Environmental Compliance**



Difficulties for Foreign Exporters of Ammunition

- ❑ **Different Interpretation of Test Procedures between US and Europe**
 - ❑ **NATO STANAGs and MIL-STDs**
- ❑ **Compliance with US Requirements for Energetic Materials and Compositions**
 - ❑ **NAVSEA SWO Compliance**
- ❑ **FOB Origin and Destination Contracts**
 - ❑ **Commercial Shipments need BATF Approval**



Overseas Testing of Foreign Ammunition

- 1. Can save a lot of Time and Money**
- 2. Needs constant Oversight to ensure detailed Compliance with US Testing Requirements**
- 3. Oversight Resources provided by US Technical / Program Managers and DCMA in Europe**