



308th Armament Systems Wing Eglin AFB, Florida

308th Armament System Wing



USAF Fuze Acquisition Roadmap Presentation to NDIA 50th Annual Fuze Conference 10 May 2006



*J. Rick Holder, Sr.
Eglin AFB, Florida
850-883-0842
james.holder@eglin.af.mil*

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Why Are We Here?

308th Armament System Wing

- **Fuze Acquisition Process**
- **Current Fuze Roadmaps**
- **Fuze Deficiencies**
- **Fuze Requirements**
- **AFRL & Foreign Technology**
 - **“Smart” Hard Target Fuzing**



USAF Fuze Acquisition Process

308th Armament System Wing

Three Methods of USAF Fuze Acquisition

1) Total System Approach (Eglin AFB)

- **308th Armament Systems Wing**
 - **308th Armament System Group**
 - JASSM (AGM-158)
 - **408th Armament Systems Group**
 - Wind Corrected Munition Dispenser
 - JSOW (AGM-154)
 - Sensor Fuzed Weapon
 - **918th Armament Systems Group**
 - Small Diameter Bomb I & II (GBU-39)

- **328th Armament Systems Wing**
 - **328th Armament Systems Group**
 - AMRAAM



USAF Fuze Acquisition Process (Cont)

308th Armament System Wing

Three Methods of USAF Fuze Acquisition (Cont)

2) Legacy System Approach (Eglin AFB)

- **308th Armament Systems Wing**
 - **708th Armament Systems Group**
 - FMU-152 (Joint Programmable Fuze)
 - DSU-33 (Proximity Sensor)

3) Sustainment Approach (Hill AFB)

- **784th Combat Sustainment Group**
 - **506th Combat Sustainment Squadron**
 - FMU-139 (Electronic Bomb Fuze)
 - FMU-143 (Electronic Bomb Fuze)



USAF FUZE ROADMAP

308th Armament System Wing

Approaches	FY	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
		Sep	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	
Total System																
JASSM (FMU-156/B) - Lockheed Martin																
JSOW-C (S&A) - Raytheon																
SFW (Integral, FZU-39) - Textron																
SDB (ESAD) - I ~ Boeing; II ~ Competition																
AMRAAM (FMU-49/B) - Raytheon																
Legacy System																
JPF (FMU-152A/B) - Kaman Dayron																
DSU-33 (Sensor) - ATK			B/B & C/B													
										C/B						
Sustainment System																
FMU-139 -ATK			C/B													
-KDI			C/B													
FMU-143 - Kaman Dayron						B/B, P/B & Q/B									5	



Component Fuze Roadmap

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		FY06	FY07	FY08	FY09	FY10	FY11	FY12
Hill	FMU-139C/B ATK	▲ FAAT	▲ Baseline Deliver	▲ Opt 1 Deliveries	▲ Opt 2 Deliveries			
	FMU-139C/B Contract KDI Actual	▲ FAAT	▲ Deliveries	▲ FAAT	▲ Deliveries	▲ Deliveries		
	FMU-143B/B Kaman Dayron	▲ Bellows Motor Rework	▲ Impact Switch Rework	▲ Deliveries				
	FMU-143B/B, P/B, Q/B KDI		▲ FAAT	▲ Lot 1-7	▲ Lot 8-14	▲ Lot 15-16		
Eglin	FMU-152 (JPF) Kaman Dayron	▲ Lot 1	▲ Lot 2	▲ Lot 3	▲ Lot 4	▲ Lot 5	▲ Lot 6	▲ Lot 7
	DSU-33C/B ATK	▲ FRP 2	▲ FRP 2	▲ FRP 2				
	DSU-33C/B ATK			▲ FRP 3	▲ FRP 3	▲ FRP 3	▲ FRP 3	▲ FRP 3



USAF Fuze Deficiencies

308th Armament System Wing

- **Requirement:** A fuze for Hard Target Munitions in support of existing Mission Need Statements (MNS)
 - CAF 314-90, Advanced Fuze Family MNS
 - CAF 317-92, The Hard and Deeply Buried Target Defeat Capability MNS
 - CAF 328-92, The Agent Defeat Weapon MNS

- **Shortcomings of Existing USAF Systems:**
 - No current fuze
 - Can survive impact loading above 10K g's
 - Has a void-sensing or layer-counting capability
 - Can arm & power-up at 60,000 feet
 - Can power-up at slow release speeds



Fuze Requirements

308th Armament System Wing

- **A “Intelligent” Hard Target Fuze**
 - Survive impact up to 50K g’s
 - Sense changes in the target overburden and structure as the warhead penetrates the target
 - Provides a void-sensing or layer-counting capability
 - Initiate the warhead at a predetermined location within the target to maximize warhead effects
 - Power system must be self contained while meeting safety requirements
 - Operate at supersonic and very slow air speeds



Questions

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