

FUTURE COMBAT SYSTEMS



One Team-The Army/Defense/Industry

"The Future is Here Now"

Inserting Technology Incrementally: Introducing FCS Technology into the Current Force

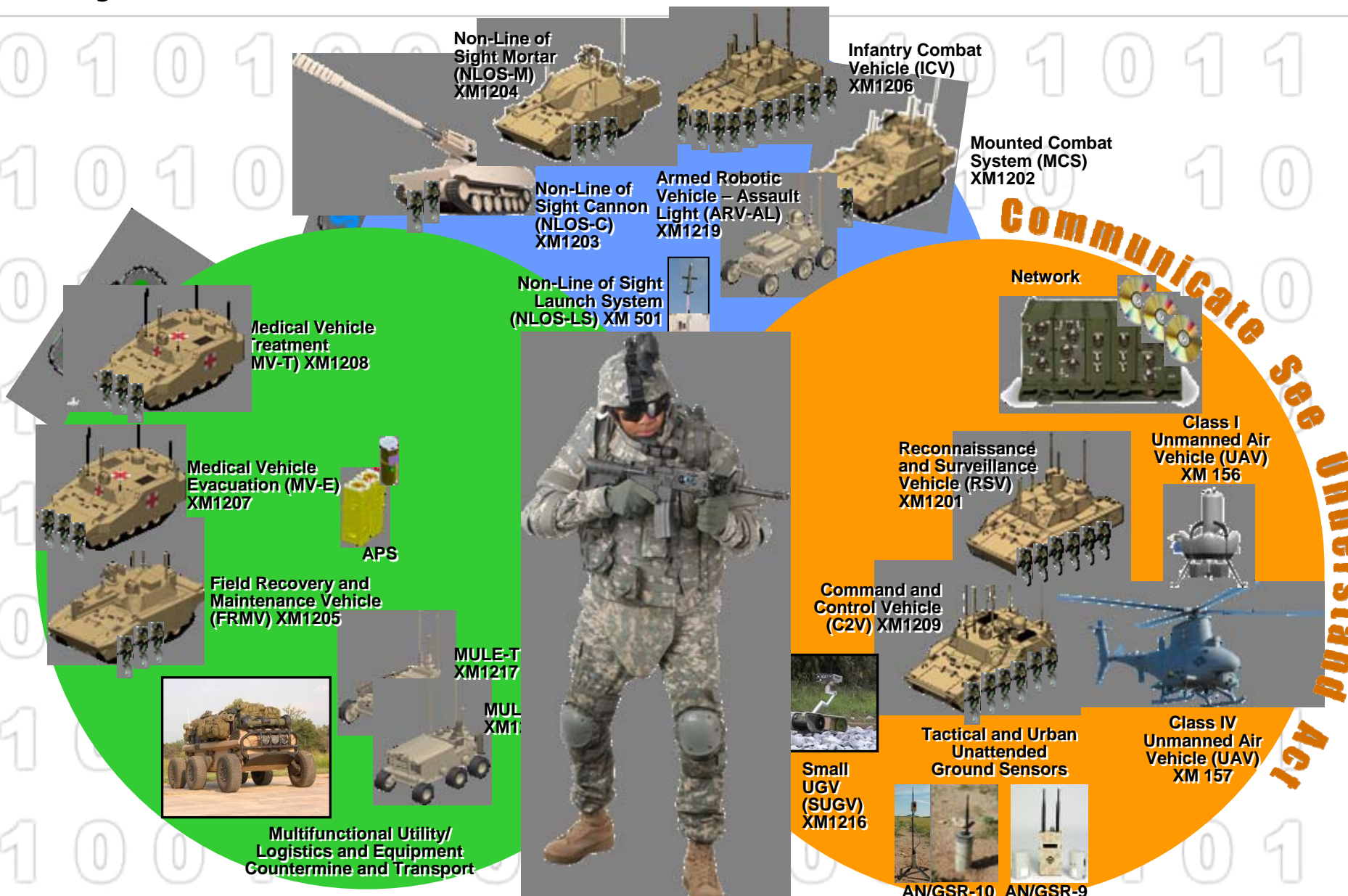
NDIA Conference

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Connect – Detect – Protect – Project...FCS



Non-Line of Sight Mortar (NLOS-M) XM1204

Infantry Combat Vehicle (ICV) XM1206

Mounted Combat System (MCS) XM1202

Non-Line of Sight Cannon (NLOS-C) XM1203

Armed Robotic Vehicle – Assault Light (ARV-AL) XM1219

Non-Line of Sight Launch System (NLOS-LS) XM 501

Medical Vehicle Treatment (MV-T) XM1208

Medical Vehicle Evacuation (MV-E) XM1207

APS

Field Recovery and Maintenance Vehicle (FRMV) XM1205

MULE-T XM1217

MUL XM1

Multifunctional Utility/Logistics and Equipment Countermine and Transport

Network

Reconnaissance and Surveillance Vehicle (RSV) XM1201

Class I Unmanned Air Vehicle (UAV) XM 156

Command and Control Vehicle (C2V) XM1209

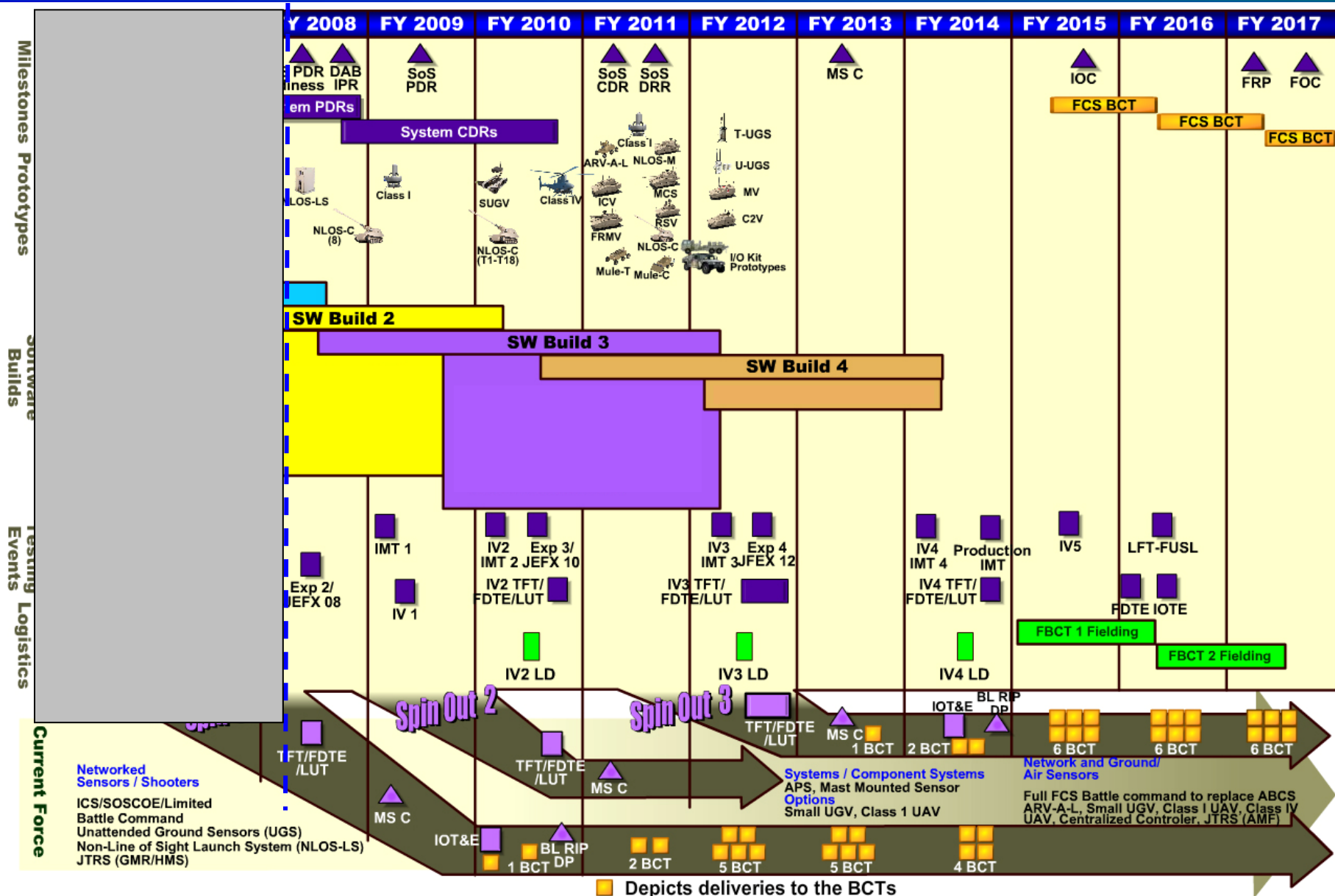
Tactical and Urban Unattended Ground Sensors

Class IV Unmanned Air Vehicle (UAV) XM 157

Small UGV (SUGV) XM1216

AN/GSR-10 AN/GSR-9

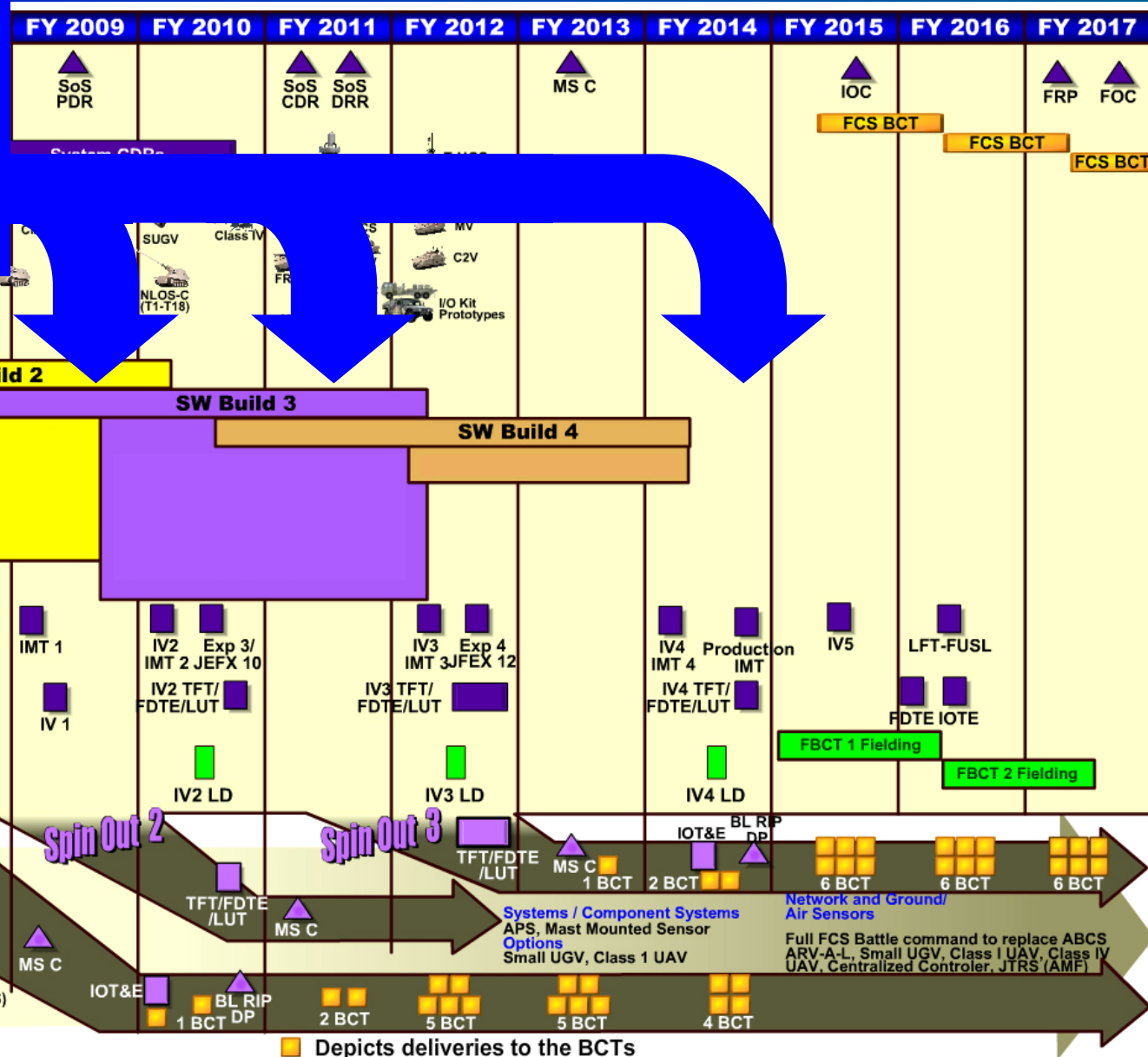
FCS (BCT) System-of-Systems Schedule



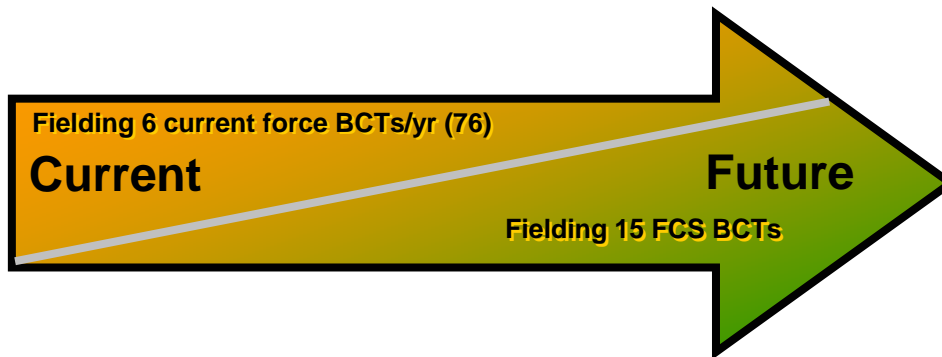
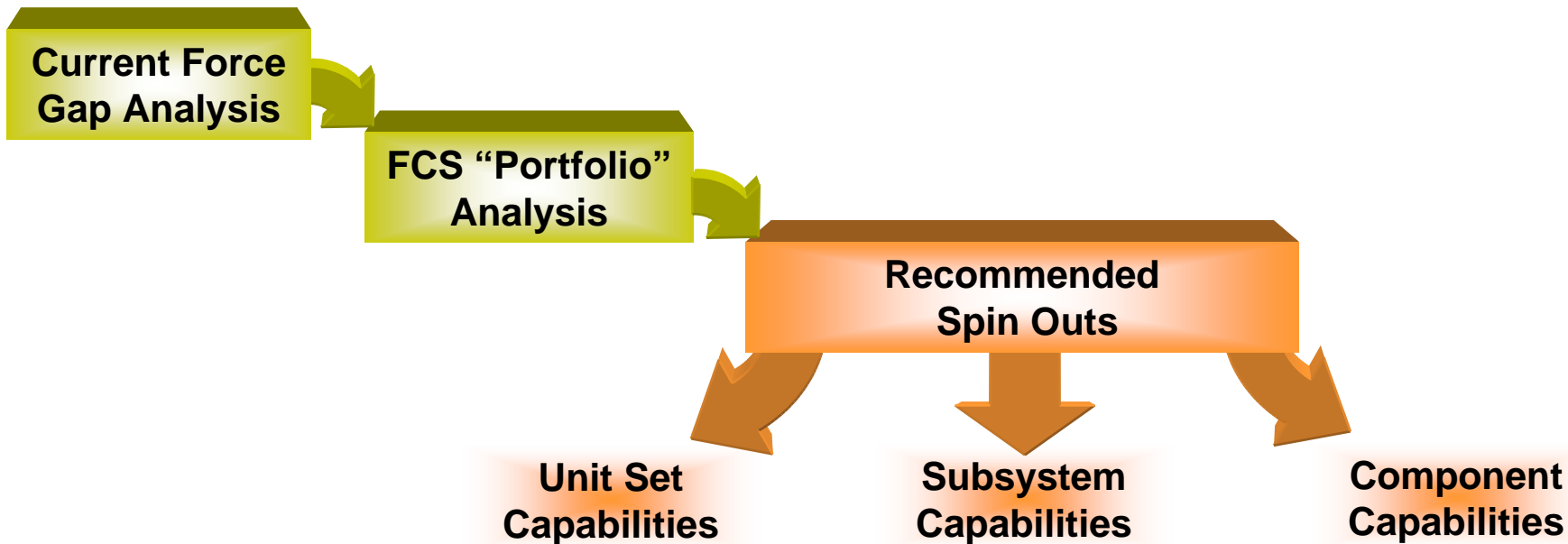
Potential for Inserting Technology/Capabilities

Tech Development & Growth Strategy

- Gap Analysis
- Tech Forecast/Roadmaps
- Tech Maturation/Analyses
- Design Integration & Test



FCS Technology to the Force



B-Kit Spin Out 1 Status

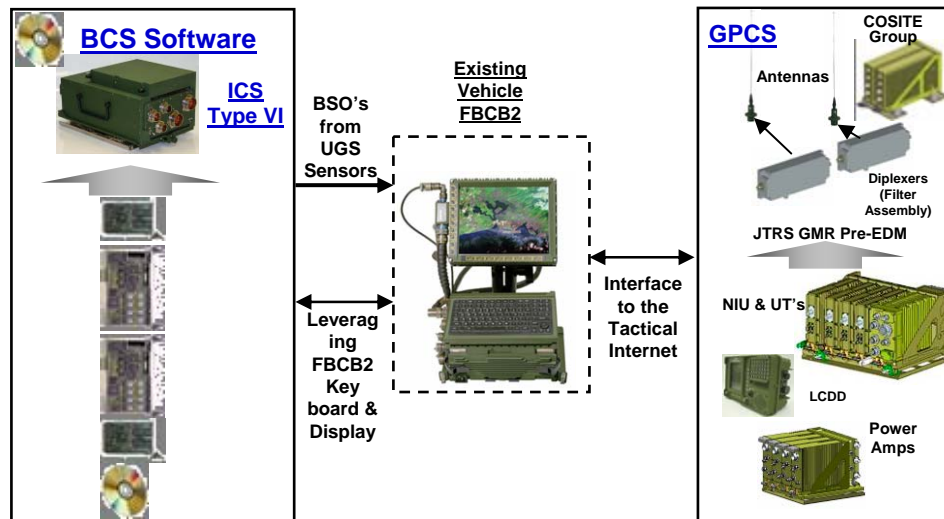


KEY ACCOMPLISHMENTS:

- ✓ Abrams, Bradley and HMMWV NET
- ✓ SO1 B-Kit FQT SW to Current Force Vehicles
- ✓ B-Kitted HMMWV, Abrams and Bradley delivered for test

FY08-09:

- AETF Evaluation Events
 - PTRR: 2Q FY08
 - TFT Dry Runs Start: 2Q FY08
 - TFT: 2Q FY08
 - FDT&E: 3Q FY08
 - LUT: 3Q/4Q FY08
- Abrams and Bradley Final Safety Release: 2Q FY08
- Complete Abrams and Bradley IQT at APG: 3Q FY08
- SO 1 Milestone C: 2Q FY09



UGS Spin Out 1 Status

U-UGS

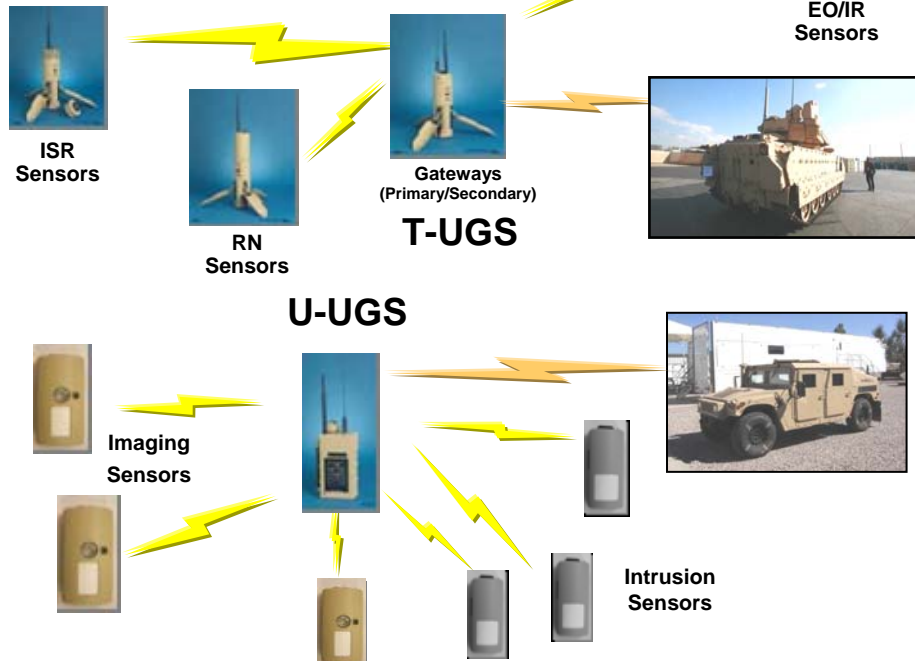


KEY ACCOMPLISHMENTS:

- ✓ UGS NET
- ✓ T/U UGS prototypes delivered for test

FY08-09:

- AETF Evaluation Events
 - PTRR: 2Q FY08
 - IQT: 2Q FY08
 - TFT Dry Runs Start: 2Q FY08
 - TFT: 2Q FY08
 - FDT&E: 3Q FY08
 - LUT: 3Q/4Q FY08
- SO 1 Milestone C: 2Q FY09



EO/IR Sensors



T-UGS ISR Node

Non Line of Sight Launch System (NLOS-LS) Spin Out 1 Status

KEY ACCOMPLISHMENTS:

- ✓ Current Forces Integration
- ✓ (AFATDS (FA Control Cell), FOS, CFFT)
- ✓ Container Launch Units (CLUs) Delivery
- ✓ Five prototype CLUs delivered
 - One additional CLU in Feb
- ✓ Conducted NLOS-LS NET
- ✓ Conducted NLOS-LS LOG Dem

FY08-09:

- **NLOS-LS Flight Testing**
 - CFT-12: 2Q FY08
 - CTV-2: 2Q FY08
 - CFT-13: 3Q FY08
 - NLOS-LS GTV 1-9: 4Q FY08 - 1Q FY09
- **AETF Evaluation Events**
 - TFT: 2Q FY08
 - FDT&E: 3Q FY08
 - LUT: 4Q FY08
- **Award of Long Lead Items Contract: 2Q FY08**
- **SO 1 Milestone C: 2Q FY09**
- **NLOS-LS Flight LUT: 2Q FY09**
- **Production Decision/LRIP I Award: 3Q FY09**



Class I Unmanned Aerial Vehicle (UAV) Block 0 Acceleration



Key Accomplishments

- ✓ AETF NET
- ✓ Acceleration Reviews
- ✓ MAV Deployed with EOD and other units



FY08-09:

- Continue in theater assessment: pres-FY09
- C4 Network Integration: 1Q-3Q FY08
- E3 and Environmental Safety Tests: 3Q FY08
- Blk 0 Delta NET: 3Q-4Q FY08
- Proceed decision: 4Q FY08



Small Unmanned Ground Vehicle (SUGV) Block 1 Acceleration



Key Accomplishments:

- ✓ Mobility testing
- ✓ Drop test
- ✓ EMI testing
- ✓ Water resistance
- ✓ Safety release
- ✓ AETF NET Soldiers Trained
- ✓ 3 Prototypes delivered

FY08-09:

- NET: 2Q FY08
- User events/test: 3Q/4Q FY08
- C4 Network Integration: 2Q/3Q FY08
- Deliver 22 units to the AETF (3Q FY08) for experimentation testing scheduled for the Summer of 2008.
- Proceed Decision: 4Q FY08



NLOS-Cannon Status

Firing Platform 2006-2008



KEY ACCOMPLISHMENTS:

- ✓ July 07 Completed Stability Testing
- ✓ Nov 07 Completed ROF/ACCS/DI Testing
- ✓ Dec 07 Fired Excalibur Mass Simulators w/Tactical Bases
- ✓ >1500 Rounds Fired on the Firing Platform as of 18 Feb 08

FY08-10:

- Safety Release - Maintenance & Re-Arm: 3Q FY08
- NLOS-C P1 Roll Out at Army Ball: 3Q FY08
- NLOS-C Congressional MS C: 1Q FY09
- Soldiers Driving/Firing NLOS-C at YPG: 2Q FY09
- NLOS-C Fielded to AETF: 4Q FY09

Prototype 1 - Integration



Prototype 3 - Integration



Prototype 4 - Ready for Integration



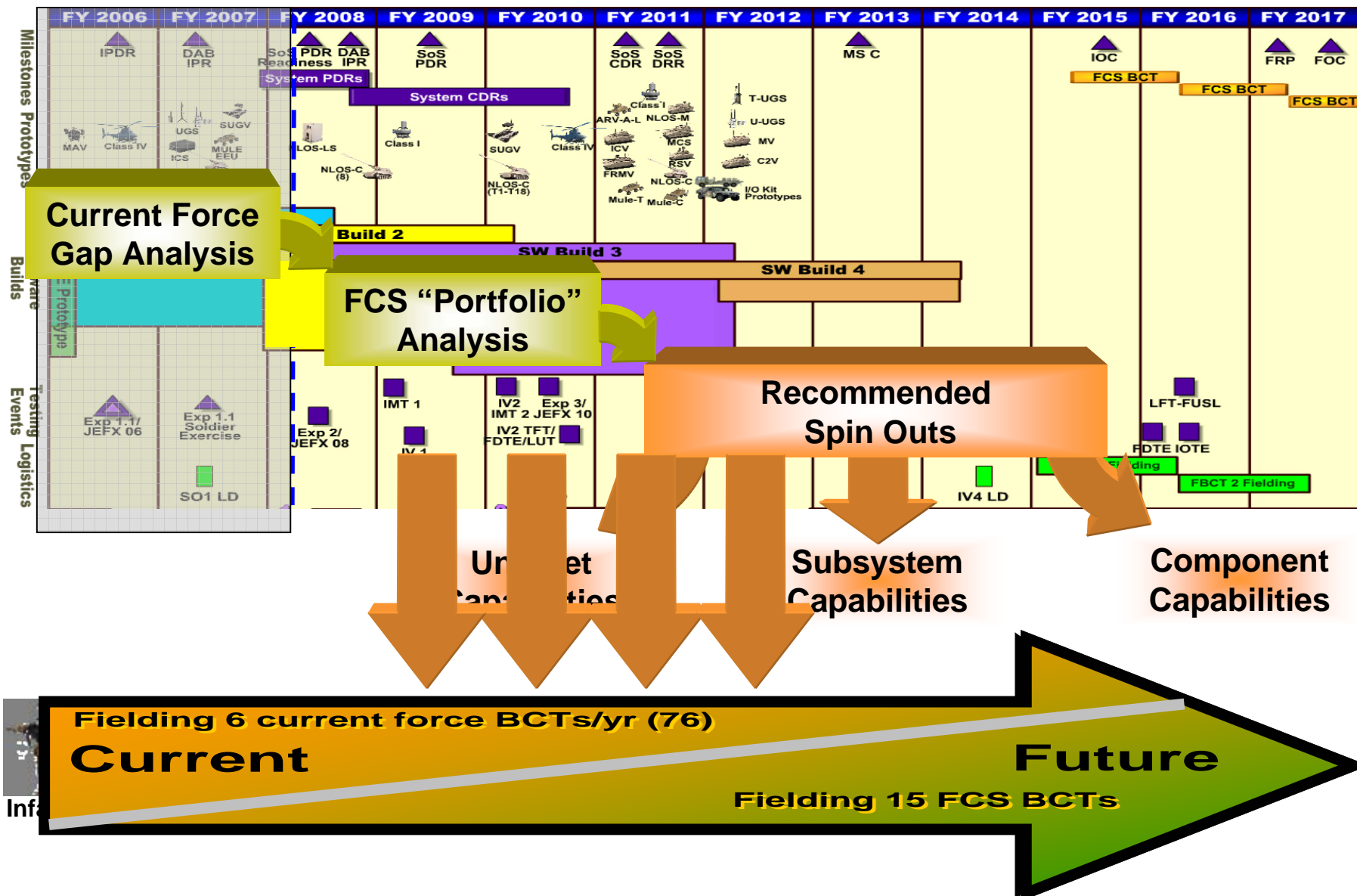
Prototype 5 - Suspension Machining



Prototype 6 - Hull Welding



FCS Technology to the Force



FCS – Reducing the “Log FOOTPRINT”

FCS Increment 1 Threshold Design (2012-2014)

Current Force Maintenance



58 Abrams



109 Bradley



27 Hercules



78 = Field Level



19 = Sustainment

FCS Maintenance



60 MCS



102 ICV



10 FRMV



10 = Field Level



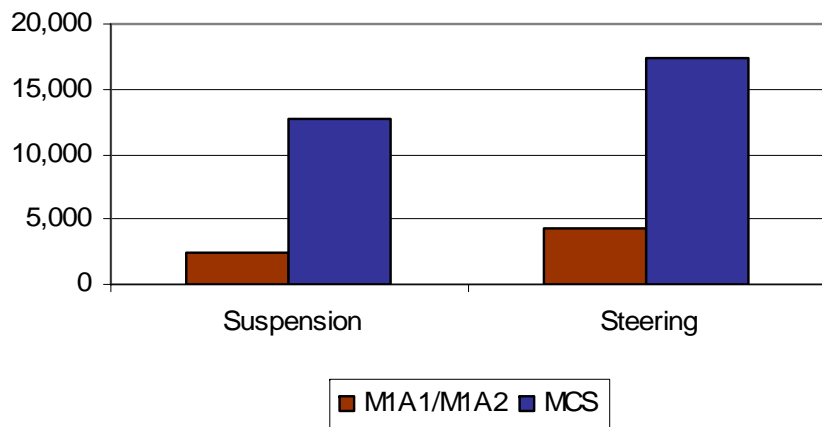
<11 = Sustainment

Fewer soldiers required for logistics

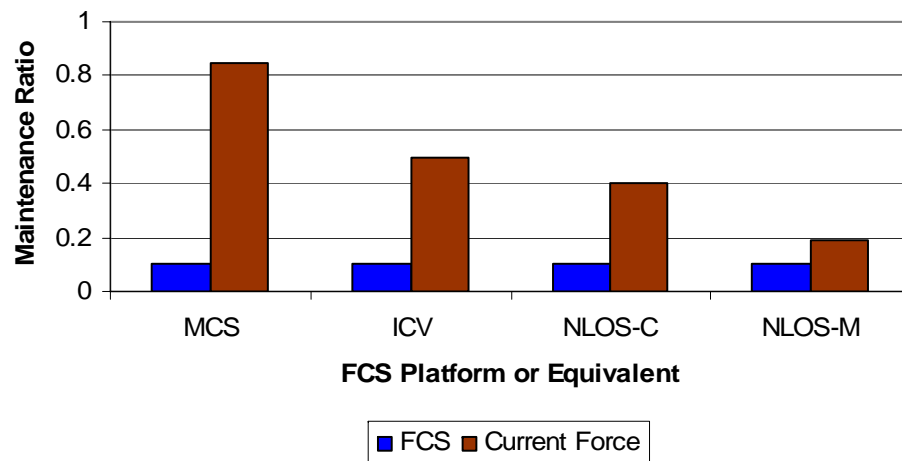
FCS MGV Reliability Design Improvement Over Current Force Platforms



Mean Times Between System Abort (MTBSA) in Hours
(More is Better)



Maintenance Ratio (MR)
(Less is Better)



Commonality maintains high, consistent component reliability across FCS platforms

- MTBSA Source: RAM-T Cases, Sept 04
- MR Source: Affordability and Strategic Integration IPT
- All costs based on LSI estimates, not the Army Cost Position.

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