PM Soldier and Individual Equipment (PM SCIE) Personnel Airdrop Team Brief to the Parachute Industry Association

11 Feb 2011

Takis Blanas
PM SCIE Personnel Airdrop Team
Agenda

- Purpose
- PM SCIE Personnel Airdrop Team Mission
- Advanced Tactical Parachute System (T-11/MC-6)
- Advanced Emergency Bailout Parachute (AEBP)
- MFF Advanced Ram Air Parachute System
- MFF Parachutist Navigation System
- Parachutist Oxygen Mask
- Item Unique Identification (IUID)
- Modular Airborne Weapons Case
Purpose

Update the PIA on the status of PM SCIE Personnel Airdrop Team product developments
PM-SCIE Personnel Airdrop Team develops, provides and manages innovative equipment and effective training to global airborne forces to enhance their lethality, survivability and mission success.

Every Soldier walks away from every jump
T-11 Technical Characteristics

- **Main Canopy: T-11**
  - Rate of Descent (ROD) 19 fps at 7,500 MSL w/ TJW of 400 lbs
  - Lower Opening Shock than T-10, < 10 G’s
  - Minimal Oscillation due to canopy design
  - Improved Maintenance Concepts & Procedures
  - Modified Cross Parachute
    - Drogue parachute
    - Deployment Sleeve
    - Slider

- **Reserve Canopy: T-11R**
  - Improved structural strength and enhanced deployment techniques
  - Low opening shock – less than 15 G’s during total malfunction
  - Deployed using either hand
  - ROD ~26 FPS, low oscillation
  - 99.6 reliability rate – Significant Improvement over MIRPS
  - Supports a TJW of 400 lbs

- **Harness: T-11**
  - Reserve opening loads exerted along long axis of the body
  - Fully adjustable over the 5th to 95th percentile female/male range
  - Improved static line control
  - Improved fit/comfort
T-11 Status

- First Unit Equipped Ranger Special Troops Battalion Mar 09
  - Fielded 12,436 systems to date
  - Fielding and New Equipment Training through FY17
- Lower Injury Rates observed at Basic Airborne Course jumps during 2Q-4Q FY10
  T-10: 116 injuries in 42,304 jumps or 2.742/1,000 jumps
  T-11: 11 injuries in 9,667 jumps or 1.137/1,000 jumps

- Full Rate Production IDIQ Contract Awarded
  - Three contracts for systems – Oct 09
    - DO 0004 anticipated award in early Feb 11
  - Three contracts spare parts – Mar 10
    - DO 0002 For spare parts – Mar 11
  - Closely monitoring critical aspects of the manufacturing process through CTQ Inspections, DCMA lot acceptance, and periodic QA audits

- Acquisition Objective: ~ 52K systems

- Spare parts sustainment contract will be issued through DLA Richmond

- FMS System Contracts will be issued through TACOM
• Main Canopy: SF-10A
  - <18 fps ROD at 8,000 MSL
  - Improved turn-and-glide capability over MC1
  - Low Opening Shock
  - Improved Maintenance Concepts & Procedures

• Reserve Canopy: T-11R
  - Improved structural strength and enhanced deployment techniques
  - 99.6% reliability rate; significant improvement over MIRPS
  - Low opening shock – less than 15 g’s during total malfunction
  - Deployed using either hand
  - Supports a TJW of 400 lbs
  - ROD ~26 FPS, low oscillation

• Harness: T-11
  - Reserve opening loads exerted along long axis of the body
  - Fully adjustable over the 5th to 95th percentile female/male range
MC-6 Status

- Fielding resumed in Dec 08
  15,482 systems fielded to date (approximately 54% of units fielded)
  Fielding to be completed by FY15
- Positive feedback from the field
- Currently in full rate production
  Four systems contracts – ending Apr 11
  Two spare parts contracts – transferred to DLA Richmond ending Aug 12
- Spare parts sustainment contracts will be issued through DLA Richmond
- FMS System Contracts will be issued through TACOM
- Looking into new systems contract to support OGA requirements and system replacements
Advanced Emergency Bailout Parachute (AEBP)

- USAF will no longer supply BA-18 Bailout Parachute Systems for Army use during Airborne Missions
- Army is adopting the Navy bailout parachute system
- Testing to validate system at 500-ft AGL and to extend repack cycle will take place in 2QFY11
- Goal is rapid acquisition of an emergency bailout parachute with minimal impact to current Army operations
  - Navy ‘Thin Pack’ parachute has been developed, tested and deployed on P-3, E2C, & C-130 aircraft
  - ‘Thin Pack’ parachute meets all Army requirements
  - USN to provide full maintenance and repack support at China Lake, CA
MFF ARAPS

- Performance Requirements:
  - Provide increased jumper exit weight up to 450Lbs
  - Capable of freefall and static line deployment >30,000 feet
  - Increased Glide Ratio for greater standoff and wind penetration
  - Reduced opening shock at exit altitude
  - Electronic Automatic Activation Device (EAAD) compatible using 1500ft model
  - Commercially available system
  - Fully adjustable Harness fits the 5th to 95th percentile
  - Capable of fitting a Hi-Glide canopy with a pack volume of 1500 in²
  - Increased jumper comfort during HAHO operations
MFF ARAPS Timeline

- **Feb 11 Purchase Requests**
  - Issue comparative range and award Purchase Requests for Design Validation test items

- **3QFY11 Design Validation**
  - Live and mannequin drops at upper weights and altitudes to evaluate systems in competitive range

- **4QFY11 Contract Award**
  - Source Selection and Evaluation Board makes final determination and contract is awarded

- **1QFY12 Developmental Testing**
  - Live jumps with selected system to validate performance.

- **1QFY13 Operational Testing**
  - Prove system reliability and determine suitability and effectiveness for operations
Parachutist Oxygen Mask (POM)

- The POM:

  Replaces the legacy MBU-12P mask that was originally designed for pilots and adopted for use by MFF community
  Provides the MFF parachutist with a safer, more dependable method of receiving supplemental oxygen
  Supports HALO/HAHO operations from 35,000-ft to 10,000-ft pressure altitude
  Is physically and functionally compatible with legacy ASFS and PHAOS bailout and console systems
  Utilizes miniature on-demand regulator easily replaceable at unit level
  Has lower maintenance requirements
  Has a lower profile than current mask
  Weighs less than 0.75 lb

- Currently in production
- Fielded to MFF School, Rangers
- Fielding and NET to SFGs commenced Jan 11
Parachutist Navigation System (PARANAVSYS)

- **The PARANAVSYS will:**
  - Provide continuous GPS mission data
  - Function regardless of visibility or weather conditions
  - Replace current magnetic compass based navigation

- **System Requirements:**
  - Reliable and easy to use Navigation and Mission Planning Software
  - Heads Up Display, no interference to User
  - Operational from 25,000 ft AGL (T), 35,000 ft (O)
  - Military SAASM GPS (Fielding Requirement)
  - Onboard GPS Retransmission Kit
PARANAVSYS Timeline

- Capabilities Production Document (CPD) Draft approval projected 3QFY11
- Request for Proposal (RFP) release projected - 1QFY12
- Full DT and OT effort 3QFY13-3QFY14
- MS C/FRP - 1QFY14
- Current Army Acquisition Objective for 1,197 systems

- Each system includes:
  - Navigation Unit
    - Computer with Navigation and MP Software
  - Heads Up Display
  - Mounting Hardware
Item Unique Identification (IUID)

- IUID is required for all items meeting any of the guidelines below as specified in DoDI 8320.04
  - Mission Critical
  - Acquisition cost >$5000
  - Serially managed

- Marks must meet MIL-STD 130 and must contain the following information:
  - Enterprise Identifier (CAGE Code)
  - Serial number
  - Part Number

- All contracts will include IUID marking and registration in IUID registry
  - Human readable information
  - UII 2D Data Matrix

- Fielded items currently have human readable information but do not meet guidelines as specified in DoDI 8320.04

- IUID must be on T-11R, T-11, MC-6, MFF ARAPS, PARANAVSYS, AEBP, POM & Test Stand
Modular Airborne Weapons Case

- XVIII ABN Corps identified a capability gap when jumping modern weapon systems with legacy M-1950 weapons case
- Approved as a Soldier Enhancement Program
- Required Capabilities:
  - A tactical weapons case for use during airborne operations to secure & carry a variety of weapons with attached optics, lasers, spare barrels, and bi/tri-pods
  - Separate compartment(s) for barrels, breaching tool & optics.
  - Adjustable, light weight and able to withstand opening shock of 8g and protect against drop rate of 27 feet per second
  - Supports internal loads up to 60 lbs (small), 70 lbs (large)
- Timeline:
  - RFP Release 3QFY11
  - Testing 3Q-4QFY11
  - Contract Award 2QFY12

Legacy M-1950 case  Concept case
POC List

Project Manager - Soldier Protection and Individual Equipment
10170 Beach Road (Bldg 325)
Fort Belvoir, VA  22060-5850

COL William Cole – PM SPIE
Comm (703) 704-3321, DSN 654-3321
william.cole@us.army.mil

Mr. David Super – Deputy PM SPIE
Comm (703) 704-3325, DSN 654-3325
david.super@us.army.mil

Product Manager – Soldier Clothing & Individual Equipment
5981 13th Street (Bldg 1155)
Fort Belvoir, VA  22060-5850

LTC Mike Sloane – PM SCIE
Comm (703) 805-8514, DSN 655-8514
michael.sloane@us.army.mil

Mr. David Geringer – Deputy PM SCIE
Comm (703) 805-8506, DSN 654-8506
david.geringer@us.army.mil

MAJ John Bryan
Assistant Product Manager (APM)
PM SCIE Personnel Airdrop Systems
Comm (703) 805-8528, DSN 655-8528
John.bryan1@us.army.mil

Mr. Takis Blanas
Team Leader
PM SCIE Personnel Airdrop Systems
Comm (508) 233-6356, DSN 256-6356
panagiotis.blanas@us.army.mil