



# CENTER OF OUR STRENGTH

Program Executive Office Soldier



## **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

# Mission



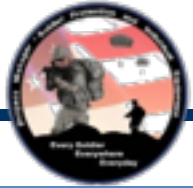
PM-SCIE Personnel Airdrop Team develops, provides and manages innovative equipment and effective training to global airborne forces to enhance their lethality, survivability and mission success.

**Every Soldier walks away from every jump**

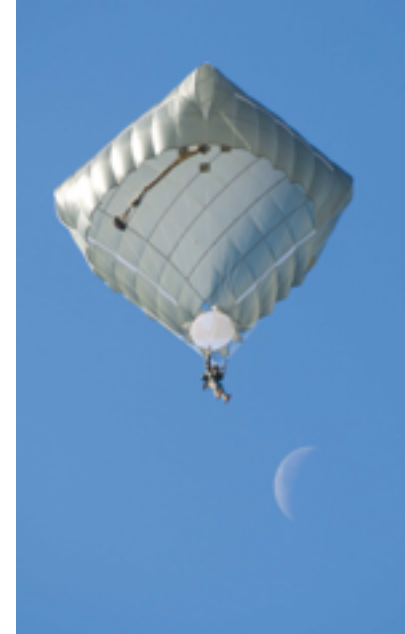




# T-11 Technical Characteristics



- Main Canopy: T-11
  - Rate of Descent (ROD) 19 fps at 7,500 MSL w/ TJW of 400lbs
  - 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



# MC-6 Technical Characteristics



- 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





# 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



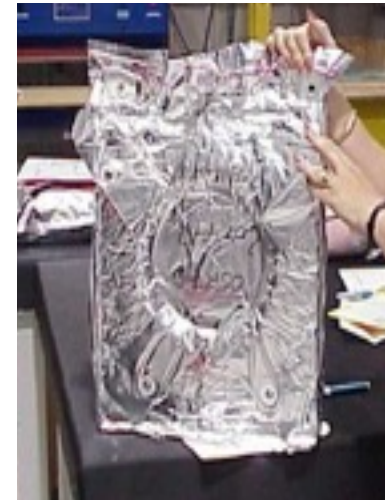




# Advanced Emergency Bailout Parachute (AEBP)



- 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



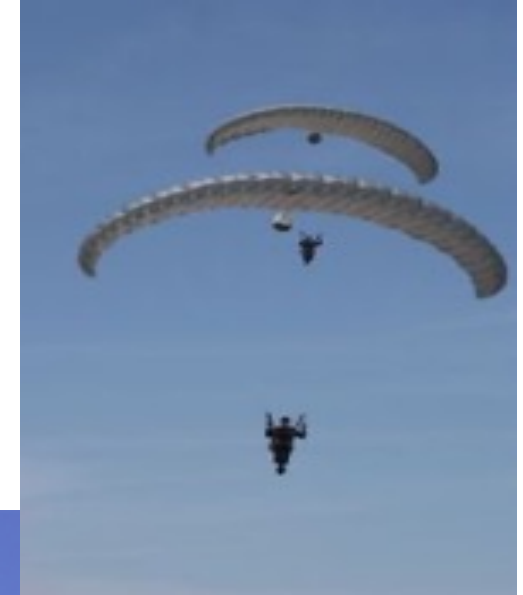


# MFF ARAPS



## ■ 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 5<sup>th</sup> to 95<sup>th</sup> percentile
- Capable of fitting a Hi-Glide canopy with a pack volume of 1500 in<sup>2</sup>
- 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

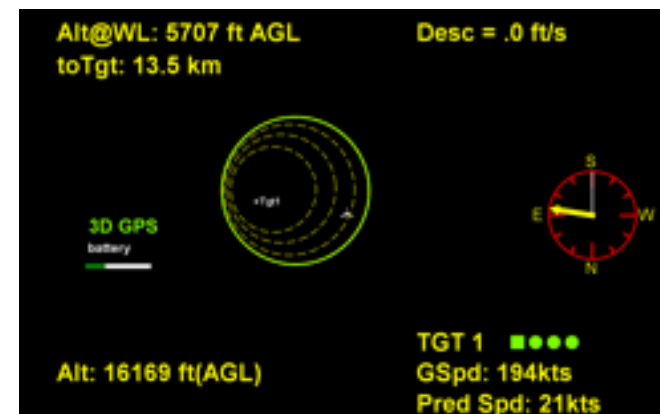




# PARANAVSYS Timeline



- 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





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