



**Product Manager
Soldier Clothing and Individual Equipment**

The Soldier

Our Strength and Purpose

Product Manager Clothing and Individual Equipment (PdM SCIE)

Program Update to the PIA

2 MAR 18

Takis Blanas
Team Leader
PM SCIE Personnel Airdrop Systems Team



Organization



Program Executive Office (PEO) - *Soldier*
PEO - BG Potts



Program Manager
Soldier Protection and Individual Equipment
(PM SPIE)
PM - COL Thomas



Product Manager
Soldier Clothing and Individual Equipment
(PdM SCIE)
PdM - LTC Allen

PERSONNEL AIRDROP TEAM
Airdrop APM - CPT McNally

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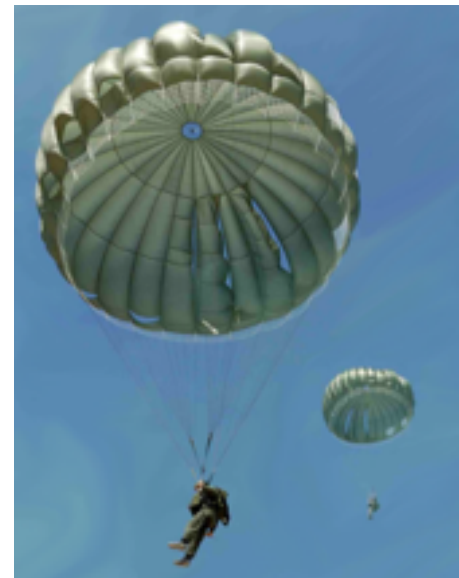
Personnel Airdrop Systems Team
(matrixed to PdM SCIE)
NSRDEC - Aerial Delivery Directorate
Team Leader -Takis Blanas



Advanced Tactical Parachute System (ATPS): T-11 & MC-6



- **T-11: Static Line, Non-Maneuverable Troop Parachute**
 - 16.5 year Age Life per TB 43-0002-43 (4.5yr Shelf Life +12yr Service Life)
- First Unit Equipped: 2009
- Re-buy to replace systems going out of service life: 2018
- **MC-6: Static Line, Maneuverable Troop Parachute**
 - 16.5 year Age Life per TB 43-0002-43 (4.5yr Shelf Life +12yr Service Life)
- First Unit Equipped: 2006
- Re-buy to replace systems going out of service life: 2019
- T-11R and T-11 harness common components for both systems





T-11 Corner Vent Retainer Band Stow (CVRBS)



- The T-11 CVRBS effort was initiated in response to the XVIII Airborne Corps' T-11 Modernization Memorandum, dated May 2015.
- A 6-in webbing sawn on to radial seam adjacent to the corner vent
- The CVRBS controls corner vent panels during deployment, eliminating irregular canopy inflation
- Incorporate ECP into future T-11 production contracts



Corner Vent Retainer Band Attaching Loop



Bottom Left Corner Arm Assembly Stowed



T-11R Single Pin (T-11R-SP)



- New pack tray design developed as long-term solution to T-11R Inadvertent Activation
- System showed no ballooning or release of handle up to test setup limit of 290 ± 5 kts
- The T-11R-SP design:
 - Maintains current packing procedures up to closing flaps
 - Accommodates AAD
 - Incorporates 1-pin closure
- Ripcord handle assembly allows for visual check of pin and lanyard for JMPI





IMPROVED TACTICAL FLOATATION SUPPORT SYSTEM (ITFSS)



- Legacy systems, B-7, LPU-10 and Tactical Flotation Support System, do not meet all of the Army's requirements for intended and or unintended parachutist water entry
- The ITFSS will support airborne operations over water or during airdrops when water obstacles are near or on the intended drop zone
- Key requirements for the Airborne community are:
 - Ability to properly rig the device to a fully combat equipped jumper for both Static Line Mass Tactical and Military High Altitude Parachutists
 - Ability to easily identify and manually activate the inflation triggers
 - Once inflated the parachutist needs to release parachute gear and retain floatation device
 - Ability to maintain the parachutist's buoyancy and head out of water for a fully equipped combat jumper at 400lbs (T11) and 450lbs (RA1) for one hour (T) and 550lbs for two hours (O)
 - Size must be equal to or smaller than the current TFSS



Current Tactical Flotation Support System



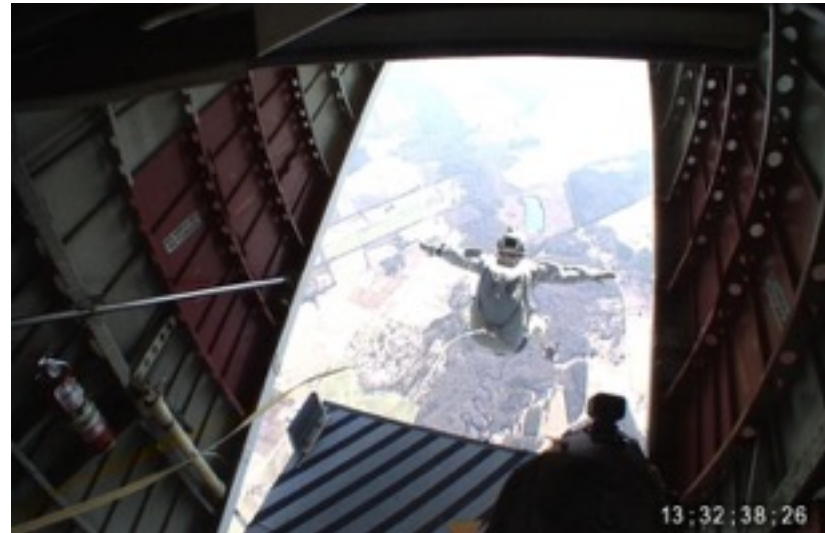
B7s



RA-1 Advanced Ram Air Parachute System



- The RA-1 is a high performance ram air parachute system used to infiltrate small teams into denied areas using High Altitude Low Opening (HALO) and stand-off techniques
- The enhanced canopy performance allows for increased stand-off, thus decreasing aircraft vulnerability
- The RA-1 enables the parachutist to safely carry an increased combat load (up to 450 lbs. rigged weight) and operate at higher altitudes – 25,000 Mean Sea Level (MSL)
 - Future efforts include certification to 30,000 MSL and a high glide main
- Has two methods of deployment: Military Free Fall (MFF) or Double Bag Static Line (DBSL)
 - Bottom of the Container (BOC) deployment capability in the process of implementation
- Currently in production and fielding/New Equipment Training (NET)





RA-1 Reserve Ripcord Handle (RRH)



- The RA-1 RRH replacement effort was initiated in response to a USASOC request to replace current metal ripcord handle
 - The shape and location of the current RA-1 RRH could present a snag hazard; jumpers inadvertently can attach their combat equipment to the handle
- A new RRH assembly was developed and successfully tested
 - Vertical Wind Tunnel Testing/User Assessment completed
 - Material Strength equal or higher than legacy stainless steel handle in all environmental conditions
- Design widely accepted by the Free Fall Community
- Implementation throughout the fleet
- Initiate Fielding: 3FY18





RA-1 Bottom of Container (BOC)



- In response to request by USASOC to remove all metal ripcord grips on the RA-1
- Inclusion of a BOC in military parachute systems will assist to mitigate issues with pilot chute hesitation
 - Hand-deployed pilot chutes are in wide use in civilian skydiving and DoD non-standard parachute systems
- Completed User Evaluation Jan 17 conducting over 170 jumps with no issues
- Safety Confirmation received 1Q18
- Fielding and NET Start: 3Q18
- Implementation will include "train the trainer" Rigger NET and "train the force" jumper transition course





Enhanced Electronic Automatic Activation Device (EEAAD)



- Provide identical reserve activation performance/reliability with current EAAD
- Provide users and maintainers a parachute “Black Box” technology
 - Additional data collection capability: G-load, orientation, altitude, change in speed, terminal velocity, deployment altitudes
- Life cycle greater than 12 years with reduced maintenance requirements
- Configuration management of hardware/software
- Internal analysis of flight data in malfunction/incident investigations in addition to AAD manufacturer’s analysis
- Unit-level access to flight data for providing training feedback
- Flight data access for RA-1 fleet allows for analysis of performance over service life
- Program Start anticipated 2Q18



Parachutist Oxygen Delivery System (PODS)



- New RA-1 Parachute has increased Parachutist's requirements for oxygen (O₂) during extended High Altitude and stand-off missions
- Oxygen consumption studies confirmed existing O₂ bailout bottles used by Military Freefall (MFF) Parachutists cannot provide the parachutist with sufficient oxygen to support these operations
- An enhanced capacity oxygen delivery system is required that will support extended duration missions
- PODS will consist of five (5) components
 - Individual Oxygen Source (IOS)
 - Transfer Pump
 - Pre-Breather
 - Parachutist Oxygen Mask (POM)
 - System Test Device
- Program start anticipated FY19





Military Altimeters (MA-1)



- Currently fielded altimeters are non-standard, have operational issues or are no longer being supported by manufacturers
- Need exists for single ruggedized MFF altimeter with improved accuracy, data logging and ease of use
- Bench testing and User evaluations show that both analog and digital commercial alternatives have potential to meet User requirements
- Requirements documents under development
- Program start anticipated FY19





QUESTIONS?



POC



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