



PROGRAM EXECUTIVE OFFICE SOLDIER

THE BEST
FOR THE BEST

Personnel Airdrop Systems

Advanced Planning Brief for Industry

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MAJ Jason Morneault
APM, Personnel Airdrop Systems
jason.morneault@us.army.mil
703-704-9369



Agenda

- Purpose
- Industry/Government Partnering
- Acquisition Process
- Advanced Tactical Parachute System (T-11/MC-6)
- MFF Navigation Aid
- MFF Advanced Ram Air Parachute System
- EAAD
- Parachutist Oxygen Mask
- Modified COTS
- QA for Personnel Airdrop Items



Purpose

To provide manufacturers of personnel airdrop items with an overview of PM CIE Personnel Airdrop Team's current and upcoming product development efforts



Industry/Government Partnering

- **Information Sharing**

- Basis of productive partnering

- **Government**

- Makes industry aware of product development process
- Updates industry on PM CIE airdrop program status
- Leverages industry's expertise and capabilities

- **Industry**

- Provides information on latest products or technologies
- Makes Government aware of their concerns



Acquisition Process

- Requirements are developed by proponent
- PM-CIE receives requirements and initiates programs
- Acquisition strategy is developed based upon:
 - Requirements
 - Technology maturity
 - Life Cycle Costs and Joint Interoperability
- Requirements are addressed through:
 - Modified Commercial-Off-The-Shelf (COTS) products
 - Developmental programs
 - Technology Insertion/Product Upgrades



Advanced Tactical Parachute System (ATPS) T-11

- 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
- Total T-11 system weight is 52 lbs





Testing, Logistical Support, & Production Status

- Operational Testing completed
 - Feb – Oct 08 at Ft. Bragg, NC
 - 3,646 total jumps completed and exceeded required reliability of .9993 at 90% confidence – 3,289 jumps
- Safety Confirmation obtained 2 Mar 09
- Type Classification STANDARD - 6 Apr
- Full Material Release obtained - 29 Apr 09
- Full Rate Production decision: May 09
- Acquisition Objective: ~ 52K systems



T-11 Fielding

- Released T-11 Fielding Coordination Documents to Gaining Commands to provide details on:
 - Roles & Responsibilities
 - Equipment transfer
 - Training
 - Displacement of legacy equipment

- T-11 Class VII Item
 - Classified as Major End Item
 - Centralized Management and Procurement

- First Unit Equipped Date: 23 Mar 09

- Fielding and Training through FY17

T-11 QPL Process



- Quality Products List (QPL)
 - Sources Sought Synopsis published Dec 06
 - TDP Update to interested offerors sent on 4 Apr 08
 - Interested manufacturers must request TDP and sign NDAs
 - Manufacturers can submit sample on their own initiative
 - Approved MC-6 contractors need only submit T-11 Main Assembly
 - Acceptance based upon contractors' ability to meet TDP and written proposal
 - First come, first served for evaluation
 - QPL to support forecasted contract award in Jul 09
 - QPL evaluation must be completed by RFP close date



Advanced Tactical Parachute System (ATPS) MC-6

- 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
 - Improved static line control
 - Improved fit/comfort





MC-6

- Currently in full rate production (four systems contracts and two spare parts contracts)
- Fielding resumed in Dec 08
 - 1st & 3rd SFG Fielded
- Feedback from the field is positive on performance of chute
- Increased number of PQDR
 - First mass fielding in 50 yrs
 - High visibility product
 - New parachute design
- Goal is to minimize deficiencies found in the field
- Partnership with primes increases quality
 - QA Audits
 - Critical to Quality measurements
 - Reviewing specs





Parachutist Oxygen Mask (POM)

The POM will:

- ✓ Replace current MBU-12P mask
- ✓ Provide the MFF parachutist with a safer, more dependable method of receiving supplemental oxygen up to 35,000-ft
- ✓ Use a low profile mask with replaceable regulator and side-mounted hose with quick disconnect fittings
- ✓ Be compatible with ASFS and PHAOS legacy bailout bottles & consoles



Developmental Testing started May 08; completed Sep 08

Operational Testing started Oct 08; completed Feb 09

FRP decision - Jul 09

FUE in 1QFY10; total of **1559** masks will be fielded over FY10-FY13



Each unit will receive test stand to test performance of regulator, exhalation valve, anti suffocation valve and communication equipment





MFF Advanced Ram Air Parachute System (ARAPS)

- System Requirements
 - Provide increased jumper exit weight up to 450Lbs
 - Static Line and MFF capable
 - Reduced opening shock at exit altitude
 - EAAD compatible using 1500ft model
 - Commercial Off The Shelf system
 - Fully adjustable Harness fits the 5th to 95th percentile





MFF ARAPS Timeline

- Capabilities Production Document (CPD) in approval cycle
- Request for Proposal (RFP) release projected - 4QFY09
 - SSEB evaluates proposals and competitive range is determined
 - Purchase systems from companies within competitive range for design validation
 - SSEB down selects to one company using results from design validation
- Full DT and OT effort 3QFY10-4QFY11
- MS C 2QFY12
- First Unit Equipped 1QFY13



PARANAVSYS Program

- Capability Gap
 - Identified by USASOC in Joint Aerial Insertion Capability (JAIC) ICD, 22 Feb 2006, validated by SOCCOM
 - Critical need to conduct low-signature, standoff aerial insertion operations (Military Freefall)
 - Current Navigation Technology for Military Freefall does not take advantage of GPS guided navigation (compass only)
- Acquisition Objectives
 - 1500 Navigation Systems (1 per Jumper)
 - 45 Mission Planners (1 per Team)
- Program Objective
 - To provide GPS guided navigation and mission planning technology for Military Freefall standoff operations.



PARANAVSYS Program

- System Description/Requirements
 - Reliable and easy to use Mission Planning
 - Military SAASM GPS (Fielding Requirement)
 - Lightweight, Clear Display (Screen or Goggle-Mounted) with no interference to User
- Current Program Status
 - Requires CPD Approval
 - Required Test Activities
 - Design Validation down select – 1QFY11
 - Developmental Testing- 3QFY11-4QFY11
 - Operational Testing- 1QFY12-3QFY12
 - FUE 3QFY13



Helmet-PARANAV on Jumper



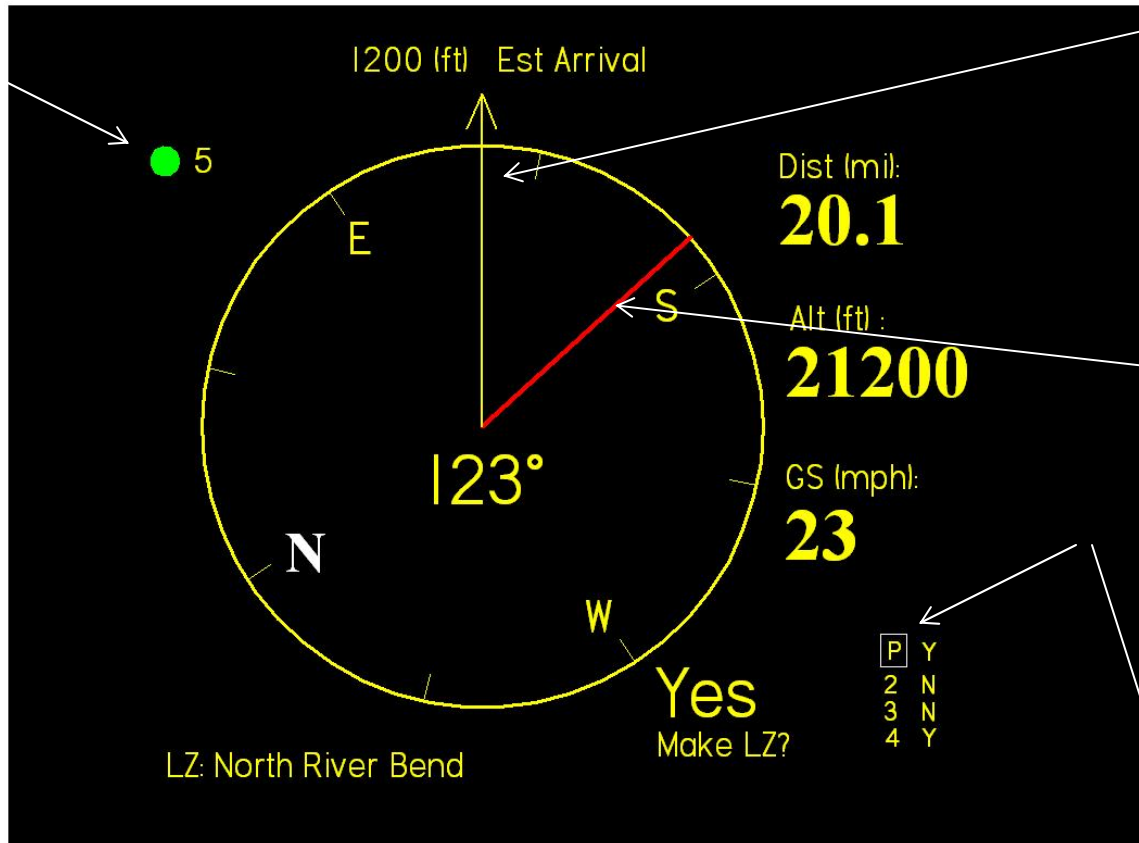
Slight Adjustment left and right accomplished by adjusting tension on left and right straps.



Navigation Screen Display

Blinking Indicator
(once per second)
& No. of Satellites
Red- No GPS Fix
Green- GPS Fix

Ground Track
(not compass
heading, takes
into account any
“crabbing”)



Line indicates
Ground track on
compass rosette
(always points up)

Red Lubber Line
indicates direction
of selected LZ

Selected LZ name
Note: Navigation information is for this LZ

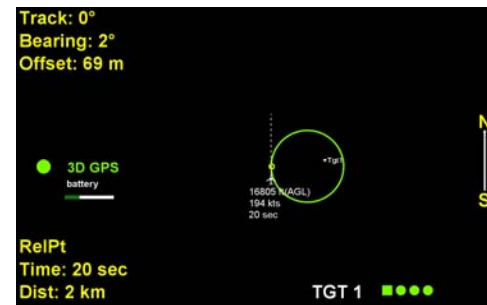
Box indicates selected LZ
Yes/No on making the LZ



PARACHUTIST NAVIGATION SYSTEM (PARANAVSYS)

System Description

- Chest Mounted Ruggedized PC
 - HAHO Navigation Software
- Military SAASM GPS
- Stand-Alone Mission Planner,
 - Compatibility with JPADS MP is an objective
- Operational in Full Range MFF HAHO Environment
 - Altitudes up to 25K (T)
 - Low Temperature to -40 F (T)
- Will include onboard GPS Retransmission Kit





QA for Personnel Airdrop Items

- Dealing with life supporting systems
- QA is an integral part of the process
- Frequent visits to facilities during production
 - Perform Audits
 - Conduct Product and Process Reviews
 - Require Supporting Documentation
 - Follow up with QAR
- Assist in Problem Solving
 - Keep lines of communication open
- Bottom line: safe, quality products for the airborne Soldier



POC List

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

COL John McGuiness – PM SEQ
Comm (703) 704-3322, DSN 654-3322
john.mcguiness@us.army.mil

Mr. Al Dassonville – Deputy PM SEQ
Comm (703) 704-3321, DSN 654-3324
al.dassonville@us.army.mil

Product Manager - Clothing & Individual Equipment
10170 Beach Road (Bldg 325T)
Fort Belvoir, VA 22060-5850

LTC Mike Sloane – Deputy PM CIE
Comm (703) 704-1465, DSN 654-1465
michael.sloane@us.army.mil

Mr. Fred Coppola – Deputy PM CIE
Comm (703) 704-3828, DSN 654-3828
fred.coppola@us.army.mil

Product Manager - Clothing & Individual Equipment
Personnel Airdrop
15 Kansas St (Bldg 3, R-235)
Natick, MA 01760

MAJ Jason Morneault – APM Personnel Airdrop
Comm (703) 704-9369, DSN 654-9369
jason.morneault@us.army.mil

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