



Cargo Airdrop Overview

Parachute Industry Association Meeting

Reno, NV
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Agenda

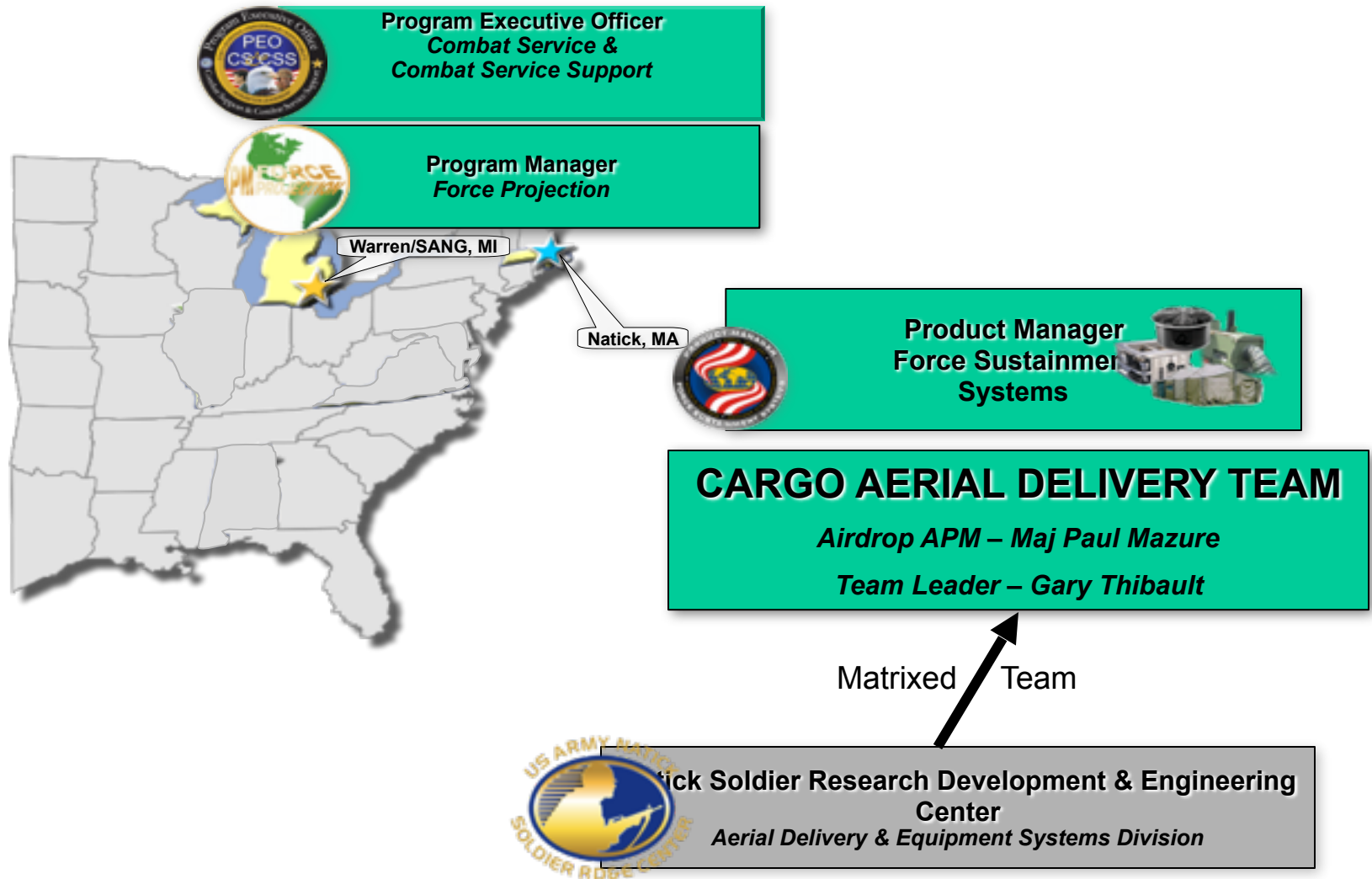
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- **Organization/Mission**
- **Program Updates**
 - Joint Precision Aerial Delivery System (JPADS) 2K/10K
 - Low Cost Airdrop System (LCADS)
 - Low Cost Low Altitude (LCLA) Airdrop System
 - Advanced Low Velocity Airdrop System (ALVADS) Blocks
 - **Advanced Cargo Parachute Release (ACPRS)**
 - **ALVADS – Light**
 - **ALVADS - Heavy**
 - **Rapid Rigging & Derigging Airdrop System (RRDAS)**

Organization

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What We Do

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Cargo Aerial Delivery Mission

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Cargo Aerial Delivery Team is the Army's life cycle manager with responsibility for development, fielding and sustainment of cargo aerial delivery systems and items to support mass airborne assaults, aerial re-supply, special operations, deep-strike concepts and humanitarian relief with improved accuracy and reliability, increased payloads, improved safety and efficiency, and increased operational flexibility.



JOINT PRECISION AIRDROP SYSTEM 2,400 lbs (JPADS 2K)

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- **DESCRIPTION:**

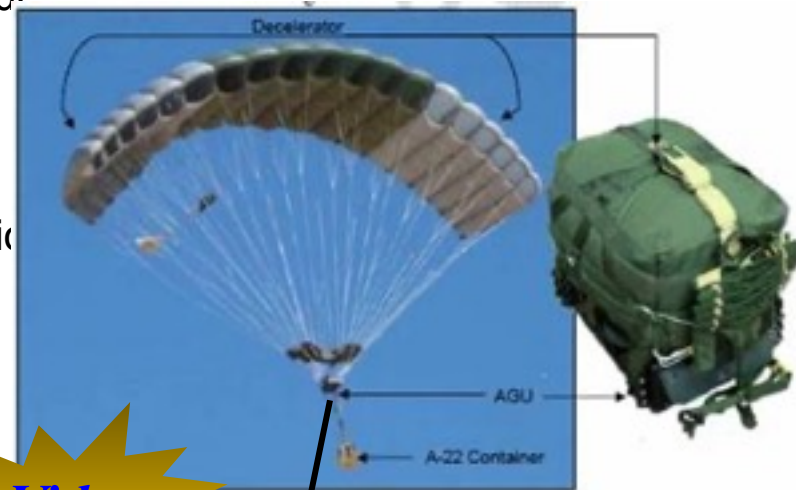
- Autonomously navigates along a predetermined glide and flight path to accurately deliver supplies and equipment
- Utilizes two primary components: a decelerator and an Autonomous Guidance Unit (AGU), which interface with the USAF JPADS mission planner

- **STATISTICS:**

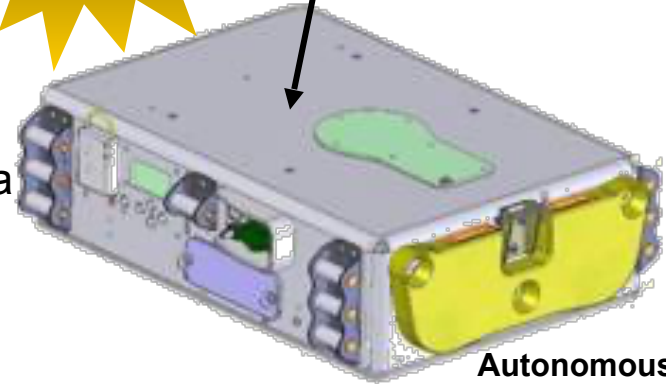
- Weight – 150 lbs.
- Max Payload – 2,400 lbs
- Release Altitude – 5,000-25,000 ft
- Surface Area – 1025 ft²
- Offset – >20Km

- **STATUS:**

- Under Contract to Airborne Systems North America
- Systems Urgently Fielded to OEF in Sep 08
- Full Rate Production Decision Expected Mar 09



Video



**Autonomous
Guidance Unit (AGU)**

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JOINT PRECISION AIRDROP SYSTEM 10,000 lbs (JPADS 10K)



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- **DESCRIPTION:**

- Autonomously navigates along a predetermined glide and flight path to accurately deliver supplies and equipment.
- Utilizes two primary components: JPADS 10K air vehicle's decelerator connected to an Autonomous Guided Unit (AGU), which interface with the USAF JPADS Mission Planner. Additionally, it will utilize either an ECDS, 463L pallet or Type V platform.

- **STATISTICS:**

- Weight – 427 lbs
- Max Payload – 10,000 lbs
- Release Altitude – 5,000-25,000 ft
- Surface Area – 3,470 ft²
- Offset – >20Km

- **STATUS**

- Under contract to Airborne Systems North America
- Currently in Development – Production Decision Expected FY 11



Video



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LOW COST AERIAL DELIVERY SYSTEM (LCADS) One Time Use/Expendable Systems

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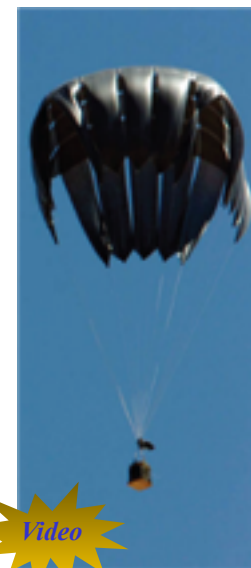
- **LOW COST CONTAINER (LCC):**

- Reduces costs by at least 55% over current CDS
- 2,200 lb. load capacity
- Delivers serviceable load in 13-knot ground winds



- **Low-V & Hi-V:**

- Pre-packed by the manufacturer
- Simple design, easy to build, able to meet surge requirements
- Broad manufacturing base
- Performance Similar to 26-Ft High Velocity and G-12 Low Velocity Parachutes



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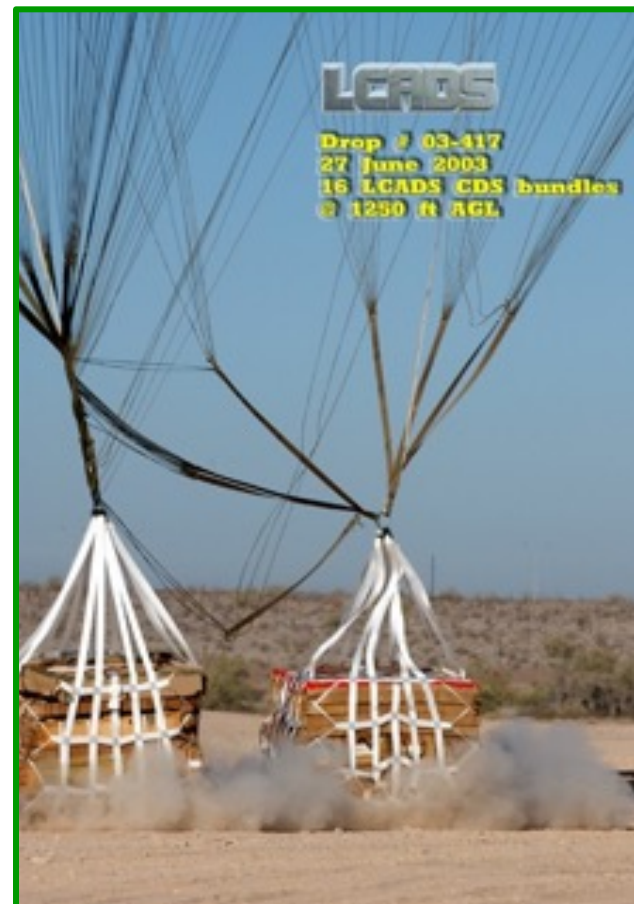


Low Cost Aerial Delivery System (LCADS) Low Cost Container (LCC)

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- Based on design of A-22 cargo container
- Uses polypropylene webbing
- Over 300 tests performed @ 500 - 2,200 lbs between 15K- 25K feet altitude



New RFP Expected
Mar 09



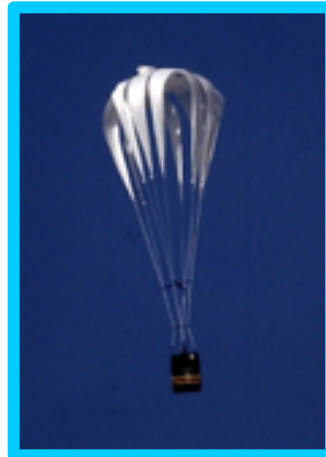
Low Cost Aerial Delivery System (LCADS) High Velocity Parachute



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- 3-ft wide woven polypropylene strips
- 12 "legs" stitched in triple cross design made of polypropylene used in agriculture and other common applications.
- Nylon rope suspension lines



•2,200-lbs capacity, 15-25K feet alt.

•Descent velocity 70-90 feet/second

**IDIQ Contract
Award Pending**



Low Cost Aerial Delivery System (LCADS) Low Velocity Parachute

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- Scaled-up version of the HV triple-cross parachute
- Woven polypro 2.7 oz
- 5 legs each side
- Crown 30-ft x 30-ft
- Pre-packed for single time use



- Uses chute-first deployment method to reduce altitude loss.
- 160-lbs
- Descent velocity less than 28 ft/sec



*RFP Currently On Street
Closes 12 Feb 09*



LOW COST LOW ALTITUDE (LCLA) One Time Use/Expendable Systems

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- **LOW COST LOW ALTITUDE (LCLA) PARACHUTE:**

- Designed to provide very low-altitude aerial re-supply capability to deployed units using small fixed wing and rotary wing aircraft.
- Consists of the following four systems: T-10 Cargo, T-10R, Single Cross, and Triple Cross Parachutes.
- 80-450 lb rigged weight at 150-300 ft AGL



*Cross Parachute Currently
in Production on
5 Yr IDIQ Contract*

*Potential Future Contracts
in CY09/10 for T-10/T-10R
Packing/Packaging*

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ADVANCED LOW VELOCITY AIRDROP SYSTEM (ALVADS)

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- **ADVANCED CARGO PARACHUTE RELEASE SYSTEM (ACPRS)**

- Designed to release cargo parachutes on ground impact
- Replaces existing M-1 and M-2 cargo parachute releases
- Improves load survivability
- Airdrop loads at 500 ft AGL

- **ALVADS:**

- Light & Heavy—capable of operations at an altitude of 500 ft AGL, increased aircraft survivability, improved accuracy
- Light—Gross rigged weight of 2,520 - 22,000 lbs.
- Heavy—Gross rigged weight of 22,001 - 42,000 lbs.

*Development
Contract
Planned 3Q09*

*Future
Programs
FY10+*



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• RAPID RIGGING DE-RIGGING AIRDROP SYSTEM (RRDAS):

- Creates a roll-on and roll-off capability for rolling stock
- Reduces exposure time on the drop zone
- Reduces reliance on energy-dissipating material (Honeycomb), thus reducing rigging and de-rigging time

*Future
Program
FY11*

