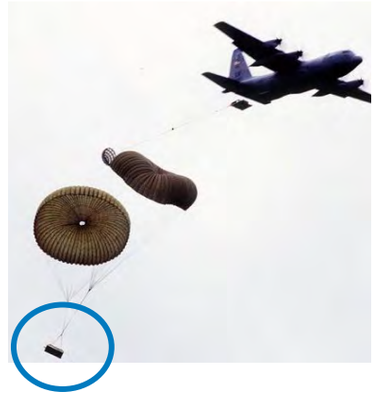
Benefits of
Replacing Current EDM & Plywood skid board
with
REAL & RUSB



Drew Holsenback
Dholsenback@qrdc.com, Cell: (703) 659-5517

Dr. Daryoush Allaei, PE
Chief Technology Officer, QRDC, Inc.
E: dallaei@qrdc.com, Cell: (612) 380-4433

Website for more in formation:

1) https://www.qrdc.com/library/real-reusable-energy-absorbing-layer/
2) https://www.qrdc.com/

January 22, 2026

Overview

1) Aerial Delivery Products and Benefits

2) Pull & Breakage Tests at Little Rock AFB

3) Sustainability

4) Current Status - Aerial Delivery Products

5) Open Discussion and Q/A

REAL and RUSB replace EDM and plywood skid

No Longer

EDM and plywood skid
Labor Intensive
Hazardous and Unsafe
Require cutting tools

Replaced with

REAL

+

Labor Light
REAL and RUSB

REAL and RUSB replace EDM and plywood skid Significantly reducing Waste

No Longer

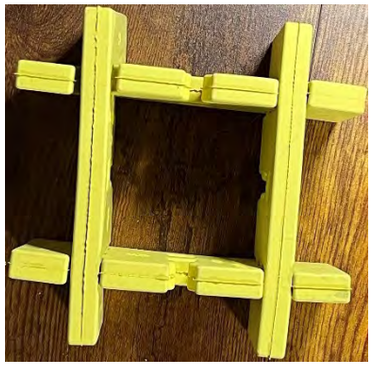
EDM & Plywood skid Generate Massive Waste

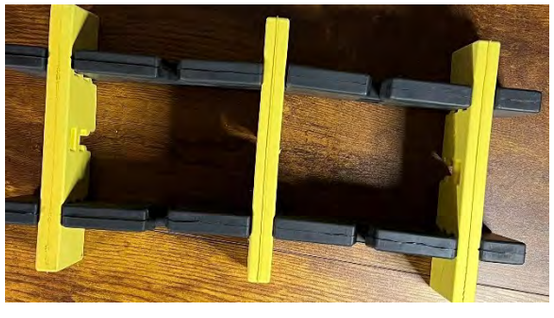
Replaced with

REAL

35 to 100 Airdrops

USA-Made
REAL & RUSB
are produced in Minnesota,
USA.





REAL Modules

Belt

Groove along the side holes on RUSB

Terminology - CDS

1. **Parachute**
2. **Top Plywood Board**
3. **Water (or Fuel) Barrels**
4. **22 Cargo Net**
5. **2G Ties**
6. **Base Plywood Board**
7. **Energy Absorbing Layer**
8. **Skid Board**

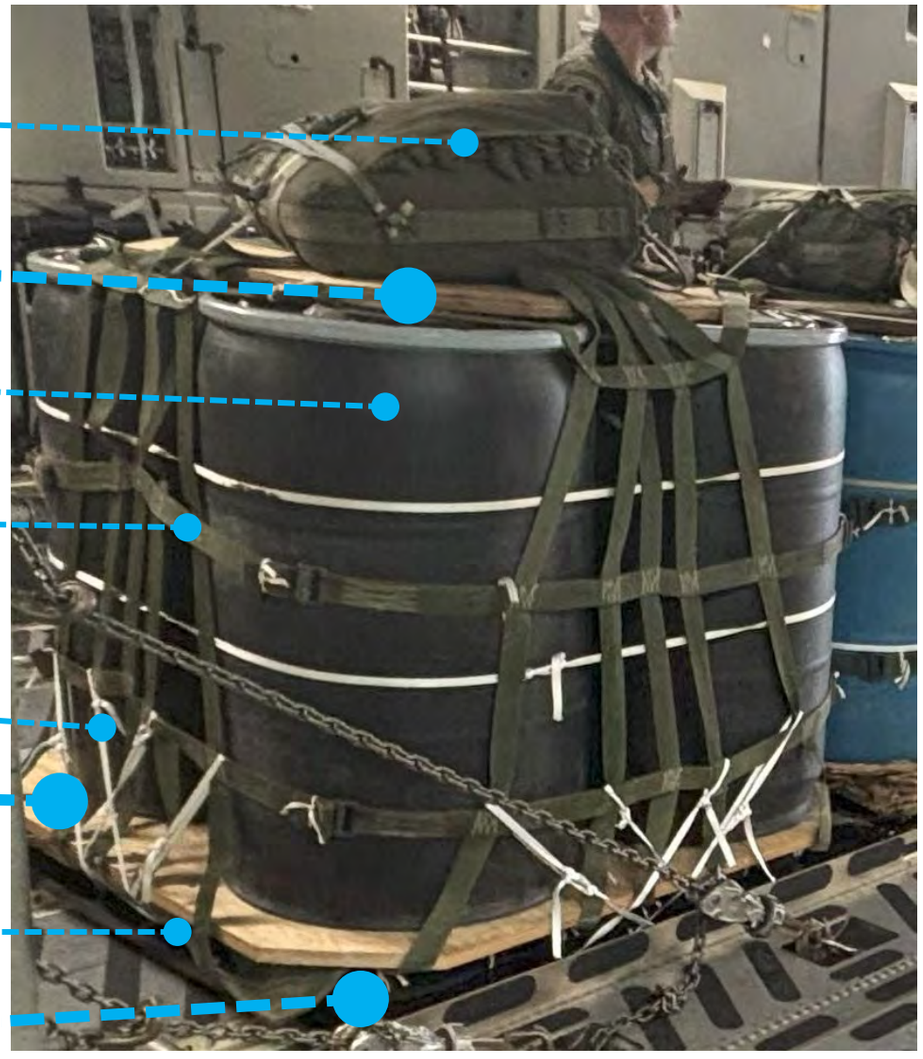


Figure 1 CDS

Top Plywood Board: 36 x 36 x 0.25”

Base Plywood Board: 42 x 42 x 0.5”

Skid Plywood Board: 48 x 48 x 1”

Terminology - LCLA

1. **Top Plywood Board**

2. **Energy Absorbing Layer**

3. **Skid Board**

Figure 3 LCLA

Top Plywood Board: 24 x 42 x 0.25”

Skid Plywood Board: 24 x 42 x 1”

Reusable Boards

Platform	Plywood Board	Replacement Part
CDS	Top (Tb)	RUSB06W-025
	Base (Bb)	RUSB07W-050
	Skid (Sb)	RUSB03B-100
LCLA	Top (Tbl)	RUSB04W-025
	Skid (Sbl)	RUSB04B-100
		RUSB04B-075

REAL (Reusable Energy Absorbing Layer) – **new, more secured design, and longer life**

Reusable EDM

EDM or Cardboard Honeycomb	Replacement Part (Standard Load Capacity)
EDM or Cardboard Honeycomb (6” height)	REAL Modules (3” height) REAL06M12 REAL23M126 REAL04M06

Layout Example

REAL has interlocked design.

Reusable Energy Absorbing Layer (REAL)

Dimensions

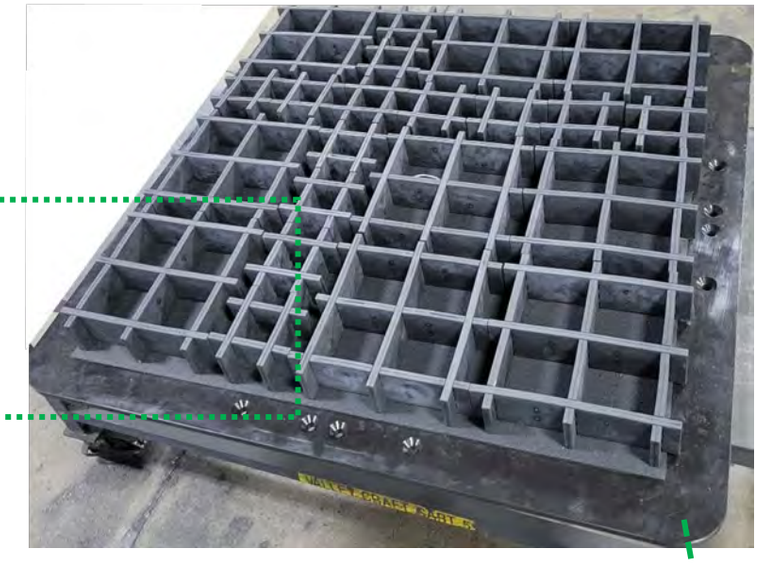
- **Overall Module Size: 12” x 12” x 3” or 6” x 6” x 3”**
- **Leaf (or Cell) Thickness: 0.5”**
  Layout on Skid: 42 by 42 by 3”

Material

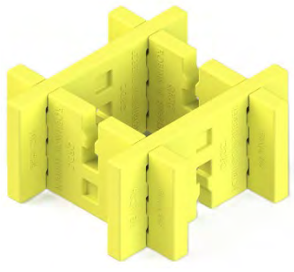
- **Proprietary Rubber**
- **Energy Absorbing**

REAL-CDS: 42 by 42 by 3”

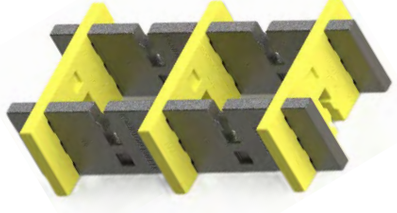
9 REAL-12M & 13 REAL-6M



12x12x3” module
REAL06M12



6x6x3” module
REA04M06



6x12x3” module
REAL23M126

Groove along the side holes on RUSB

Reusable Universal Skid Board (RUSB)

REAL and RUSB replace EDM and plywood skid

1) Ground and Flight Tests

1.a) Simulated Ground Test at Natick

1.b) Airdropped at

- Tucson AFB (airdrop test)
- Little Rock AFB (airdrop test)
- Little Rock AFB (Strength tests)

Approvals

2) Approved by

2.a) ATTLA

2.b) USAF issued UAT (Unilateral Aeiral Training)

UAT for REAL was issued in January 2024
UAT for RUSB was issued in March 2024
USAF FCIF on RUSB was issued in January 2025
AFSOC FCIF on mixing Plywood & RUSB in August 2025

USAF issued UAT (Unilateral Aeiral Training) for REAL

January 2024

ADFSD RELEASE INFORMATION FILE

Applies to:		**Army**	✓	**USAF**		**Navy**		**USMC**		**Other:**
Interim:		**Control Number:**		**Release Date:**	
Exception:	✓	USAF 24-003		10-Jan-2024	
Rescind Date:		**Post Until Further Notice:**		**Publication Affected:**	
		OR	✓	TO 13C7-1-11	

Title: Authorization for Reusable Honeycomb (REAL)

//UNCLASSIFIED//

1. The Air National Guard – Air Force Reserve Command Test Center (AATC) tested the reusable honeycomb with their Research & Development Team at US Army Combat Capabilities Development Command Soldier Center, Natick, MA. The test was completed to allow a reusable pad in lieu of single use energy dissipating material on container delivery systems (CDS).

2. This exception to policy governs AF UAT loads rigged for CDS, Container Ramp Loads (CRLs), and LCLA only. Loads covered in TO 13C7-1-11 are the only loads authorized for use for UAT loads. Contact QRDC for purchasing at:

Mr. Daryoush Allaei
3223 Fairchild Ave.
Wayzata, MN 55391
Email: Dallaei@qrdc.com
Office phone: 952-556-5205
Direct line: 612-380-4433

3. All units utilizing REAL will follow the manufacture procedures for assembly and place IAW TO 13C7-1-11. Adverse results of using the REAL versus Energy Dissipating Material (EDM) are mandatory.

4. This memorandum expires when TO 13C7-1-11 is revised/published.

5. The point of contact for this action is MSgt Drew Holsenback, commercial 703-659-5517 or andrew.holsenback@us.af.mil.

Releasing Authority:	**Signature:**
ANDREW J. HOLSENBACK, MSgt, USAF USAF Aerial Delivery Manager	HOLSENBACK.ANDREW.JAMES.1265841941 Digitally signed by HOLSENBACK.ANDREW.JAMES.1265841941 Date: 2024.01.10 15:50:42 -05'00'

ADFSD Release Information File, Version 1, 20230105

USAF issued UAT (Unilateral Aeiral Training) for RUSB

March 2024

ADFSD RELEASE INFORMATION FILE

Applies to:		Army	✓	USAF		Navy		USMC		Other:	
Interim:		Exception:	✓	Control Number: USAF 24-006			Release Date: 29-Mar-2024				
Rescind Date:				OR	Post Until Further Notice:	✓	Publication Affected: TO 13C7-1-11				

Title: Reuseable Universal Skidboard (RUSB) Rigging Authorization

//UNCLASSIFIED//

1. This releases the interim/exception for TO 13C7-1-11.

2. Current wooden skidboards have a tendency to break after one drop or cannot be brought to other countries based on the WRM issues. A reusable universal skidboard (RUSB) has been tested and authorized for airdrop of USAF UAT containers. The RUSB is approximately 1 inch thick, 48"x48", and has pre-drilled holes for skidboard ties. These may be reused until they break, crack, or have noticeable degradation affecting the survivability of the airdrop. RUSB is designed to be utilized with REAL, but can be used with traditional EDM (honeycomb) if needed.

3. This interim/exception will expire when incorporated in TM 4-48.03/MCRP-4-10.3C/TO 13C7-1-11 when it is revised / published.

4. Units wishing to purchase RUSB will contact the following:
QRDC, Inc
Dr. Daryoush Allaei
Chief Executive Officer
dallaei@qrdc.com
Cell: 612-380-4433

Releasing Authority:	Signature:
ANDREW J. HOLSENBACK, MSgt USAF Aerial Delivery Manager	HOLSENBACK.ANDREW.JAMES.1265841941 Digitally signed by HOLSENBACK.ANDREW.JAMES.1265841941 Date: 2024.03.29 11:57:09 -04'00'

ADFSD Release Information File, Version 1, 20230105

USAF issued

FCIF

for

RUSB

January 2025

Sent by:
Maj Andy Forsyth, RIANG
AMC C-130J Command Evaluator
Quonset ANGB, RI

FLIGHT CREW INFORMATION FILE

APPLIES TO: ACC☐ AETC☐ AFGSC☐ AFMC☐ AFRC☒ AFSOC☐ AMC☒ NGB☒ PACAF☒ USAFE-AFAFRICA☒ Other:☐

FCIF ☒ SII ☐	ORIGINATING HHQ FCIF/SII # 25-01-01	WING/OG FCIF/SII #	UNIT FCIF/SII #

RELEASE DATE	UNIT POST DATE	RESCIND DATE	OR ☒ POST UNTIL FURTHER NOTICE
07 Jan 2025			

APPLICABLE TO: LoadPilot

AIRCRAFT or MDS	C-130J ☒	C-130H ☒	C-17A ☒

SUBJECT: Reusable Universal Skid Board Use Approval

//UNCLASSIFIED//FCIF# 25-01-01

1. This FCIF is approved for release by Mr. Scott Lubin, AMC/A3V, and applies to all AMC, PACAF, USAFE, AFRC, ANG and AMC-Gained C-17A and C-130 units. Retain this FCIF until rescinded.

2. The Reusable Universal Skid Board (RUSB) is a composite, reusable Container Delivery System (CDS) skid board with the potential to significantly reduce the cost of conventional plywood skid boards.

3. Several USAF unilateral airdrop training units have purchased RUSB quantities however, a full restraint evaluation of the RUSB is pending and has not been completed. Until a full restraint evaluation is completed, vertical restraint will be applied utilizing aircraft CGU 1/B straps to all CDS bundles rigged with the RUSB. This includes bundles restrained by the Center Vertical Restraint (CVR) or Enhanced Container Vertical Restraint (ECVR) systems. Straps used as additional restraint will be placed and secured in a manner that does not interfere with the parachute and/or bundle rigging.

4. Aircrews will report any problems encountered when using the RUSB to AMC/A3TW.

5. This is a coordinated HQ AMC message. MAJCOM POCs are: AMC/A3VX - Maj Andy Forsyth DSN 779-1143 AMC/A3V - Maj John Kuconis, DSN 312-779-1143; AMC/A3TW - MSgt Stefan Eiermann, DSN 312-779-7857 NGB/A3ME - Maj Joe Oliphant, DSN: 612-7164; HQ AFRC/A3MV - Lt Col James Hodgson, DSN: 497-0483; HQ PACAF/A3TV - Maj Maddie Atkinson, DSN 315-449-1993; HQ USAFE-AFAFRICA/ A3AV - Maj Mike Morrison, DSN 314-480-9363

// SIGNED //

SCOTT J. LUBIN, Civ, USAF

Chief, AMC Stan/Eval & Readiness

//UNCLASSIFIED//

RELEASING AUTHORITY	PHONE	SIGNATURE
RELEASING OFFICE	PHONE	SIGNATURE

AMPLIFYING INFORMATION:

AF FORM 50, 20210113 PREVIOUS EDITIONS ARE OBSOLETE Page 1 of 2
Prescribed by AFMAN11-202V2

AFSOC FCIF 25-112

August 14, 2025

UNCLASSIFIED
(When Filled In)

FLIGHT CREW INFORMATION FILE

AFSOC #	UNIT #	RELEASE DATE	UNIT POST DATE
A3V-25-112		14-Aug-25	

RESCIND DATE — UNTIL FURTHER NOTICE ☒

SUBJECT: Reusable Universal Skid Board Use on Unilateral CDS Training Loads

MDS	INDEX #	WING/GROUP	SQUADRON	SQUADRON	OTHER CMDS
MC-130J		1 SOW	1 SOS		ACC
		27 SOW	6 SOS		NGB
		193 SOG(G)	8 SOS		AFMC
		352 SOW	9 SOS		AETC
		353 SOW	14 WPS		
		492 SOW	15 SOS		
			18 SOTES		
			19 SOS		
			67 SOS		
			193 SOS(G)		

CREW POSITION

ALL ☒	P ☐	NAV ☐	EWO ☐	CSO ☐	FCO ☐	FE ☐	LM ☐	AG ☐	SO ☐	DSO ☐
TSO ☐	MCS ☐	AMSO ☐	MSO ☐	FSO ☐	SUAS ☐	SMA ☐	WSO ☐	SW ☐		

AFSOC FORM 12, 20191003 — UNCLASSIFIED *(When Filled In)* — Page 1 of 2
Prescribed by: AFI11-202v2_AFSOCSUP

AFSOC FCIF 25-112

UNCLASSIFIED

(When Filled In)

AMPLIFYING INFORMATION:

1. This AFSOC FCIF applies to units operating the MC-130J; all others take for information only.

2. The Reusable Universal Skid Board (RUSB) is a composite, reusable Container Delivery System (CDS) skid board with the potential to significantly reduce the cost of conventional plywood skid boards. Additionally, RUSB is designed to be utilized with Reusable Honeycomb (REAL/REAP), but can be used with traditional Energy Dissipating Material (EDM) honeycomb.

3. RUSB is approved for use for unilateral training airdrops; however, a full restraint evaluation of the RUSB is pending and has not been completed. Until a full restraint evaluation is completed, vertical restraint will be applied utilizing aircraft CGU 1/B straps to all CDS bundles rigged with the RUSB. This includes bundles restrained by the Center Vertical Restraint (CVR). Straps used as additional restraint will be placed and secured in a manner that does not interfere with the parachute and/or bundle rigging.

4. User reports indicate the RUSB exits faster than a plywood skid board. To prevent malfunctions caused by bundle interaction among mixed RUSB and plywood skid boards, all bundles rigged with RUSB in a mass configuration will be loaded to exit the aircraft before any bundles rigged with plywood boards exit. If a bundle rigged with RUSB is the first to exit the aircraft--and until RUSB exit times have been fully evaluated and published--aircrews will subtract one second from the calculated CDS exit time to correct for faster exit. This corrected exit time will be overwritten into the aircraft's CARP computer or manually computed CARP.

5. Aircrews will report any problems encountered when using the RUSB to AFSOC/A3FW/A3V.

6. The FCIF will remain in effect until the TO 13C7-1-11 is revised/published and additional guidance is incorporated.

7. Post this FCIF within 2 days of receipt to Volume 1, Part B of the FCIF. AFSOC/A3V is the POC, DSN 579-4880.

Pull Test at Little Rock AFB

1” & 0.75” Plywood

versus

1” & 0.75” RUSB

Pull Test at Little Rock AFB – 1” Plywood versus RUSB

Pull Test
1” Plywood
breaks about
2,400 lbs

Pull Test
1” RUSB
holds more than
3,100 lbs
without breaking

Pull Test at Little Rock AFB– RUSB after test

Pull Test – RUSB holds about 3,100 lbs without breaking

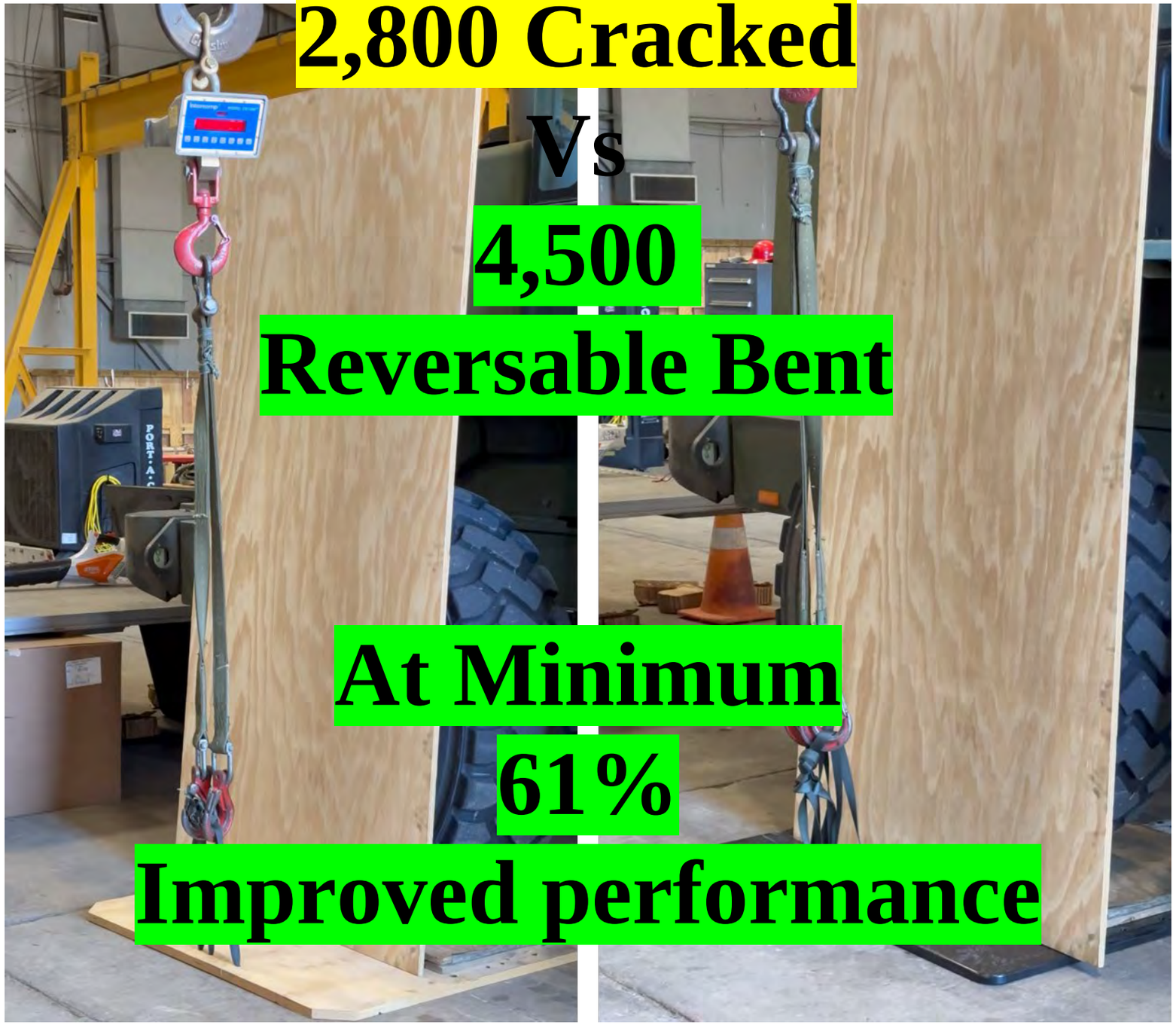
Front and Back of RUSB after pull test

Break Test at Little Rock AFB– Plywood versus RUSB

Break Test
1” AA Plywood

Cracked at
2,800 lbs

Broke at
3,200 lbs



2,800 Cracked

Vs

4,500

Reversable Bent

At Minimum

61%

Improved performance

Bend Test
1” RUSB

Cracked: N/A

Broke: N/A

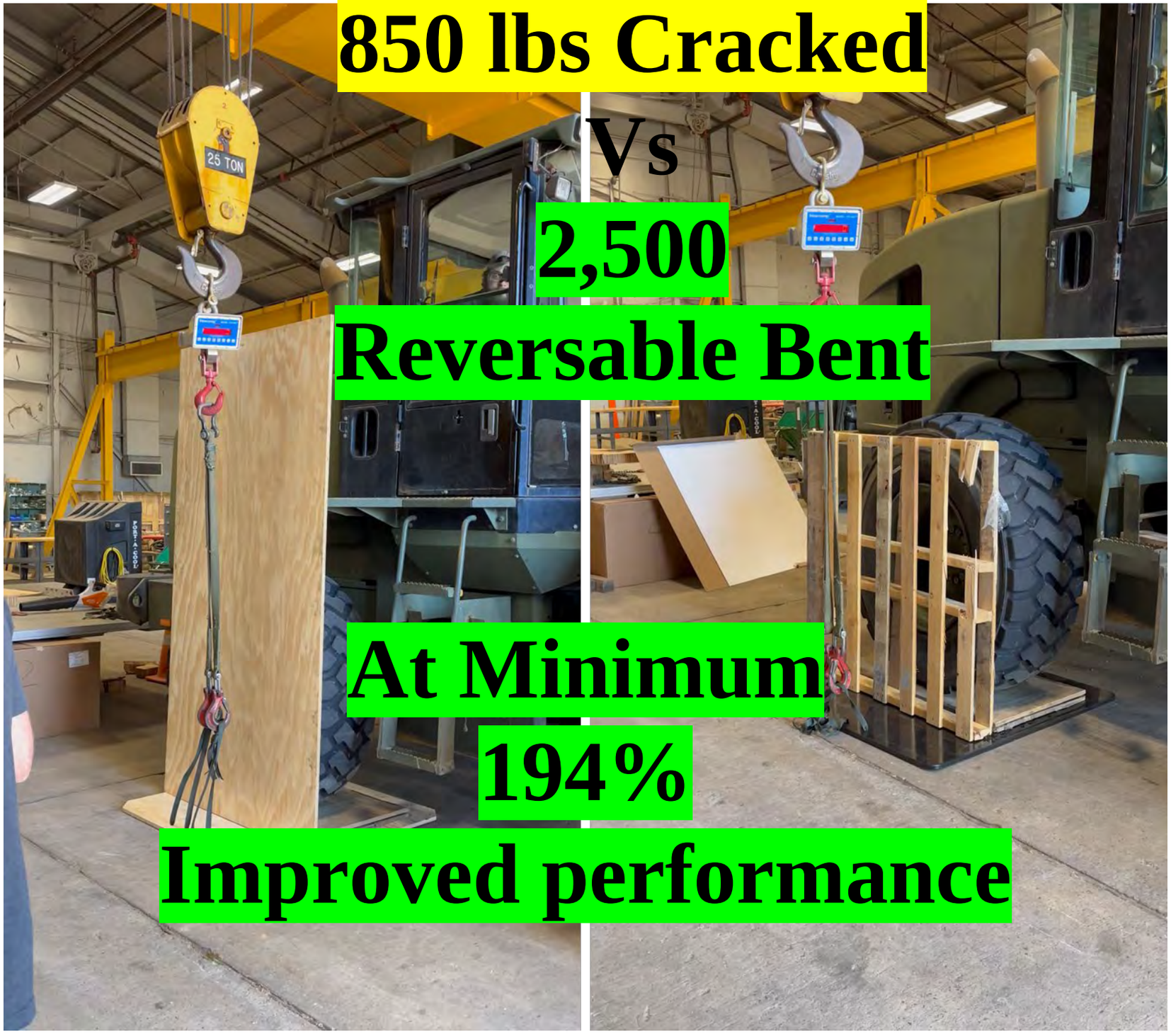
Bent:
4,500 lbs

Break Test at Little Rock AFB– Plywood versus RUSB

Break Test 3/4” AA Plywood

Cracked at 850 lbs

Broke at 1,200 lbs



850 lbs Cracked

Vs

2,500 Reversable Bent

At Minimum 194% Improved performance

Bend Test 3/4” RUSB

Cracked: N/A

Broke: N/A

Bent: 2,500 lbs

Break Test at Little Rock AFB– Plywood versus RUSB

After Break Test

Broken
1” & ¾”
AA Plywood Skids

30 minutes After Test

1” RUSB was flat to its original shape

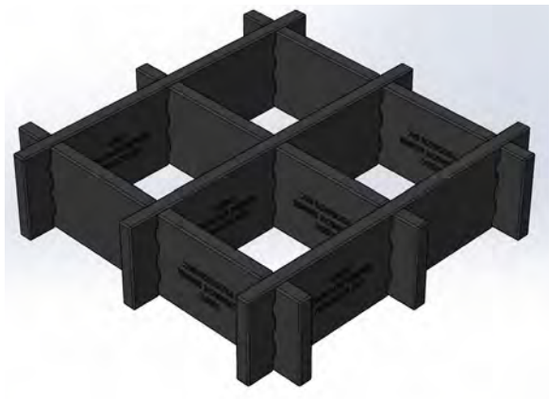
Summary of Pull and Bent Tests

Improvements:

29% - 194%

REAL & RUSB

Summary of Benefits & Features



REAL – Saves labor & money and improves readiness

a) Reusable

- 35 to 100 airdrops without indication of degradation

Based on historical data on elastomeric isolators deployed in 2022 and has been used in airdrop platforms by multiple AF bases.

b) Modular

– easy to assemble; no need to cut, glue or tape together

c) Adaptable

- designed to accommodate all dimensions (rounded to a 6”)

d) Environmentally resistant

– no degradation in water or moisture conditions

REAL – Saves labor & money and improves readiness

e) Floatability

- Separates & Floats from drop item in water without surface debris to clog intake pipes, propellers, etc.

f) 99% Reduction

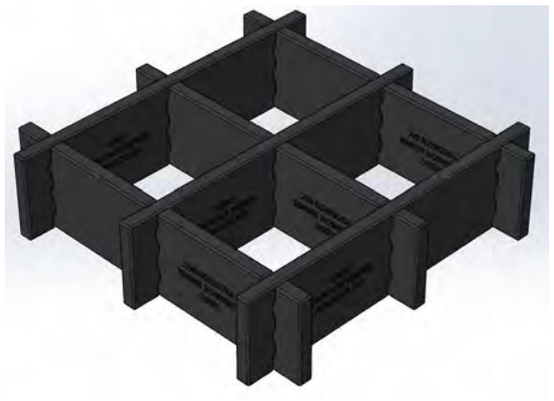
- ship and storage volume (based on test usage)

g) Deployable Internationally

- no WRM requirement for importing to other countries with restriction on importing wood (i.e., Australia)

h) No Spillage & No Separation

- REAL leaves are interlocked.



REAL – Saves labor & money and improves readiness

g) Sustainability by Conservation of Water

- 127% conservation of water

After 2000 drops, more than 152,000 lbs of water is conserved.

h) Safety

– No need to use cutting tools (Saw, knife, etc.)

i) Improved Readiness

- Labor and Cost savings can be put into readiness

j) Floatable Models

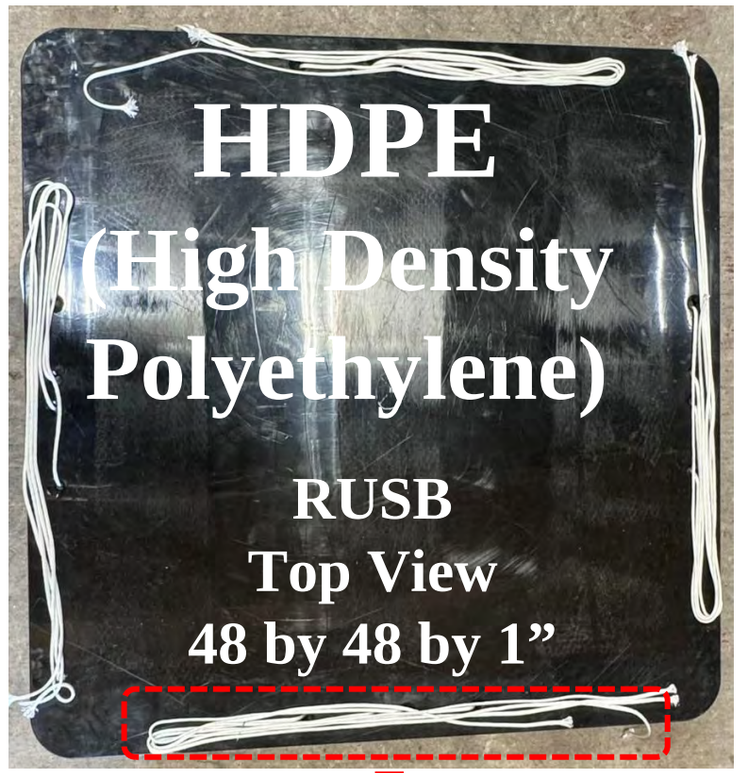
– Floatable models of RUSB and REAL are available

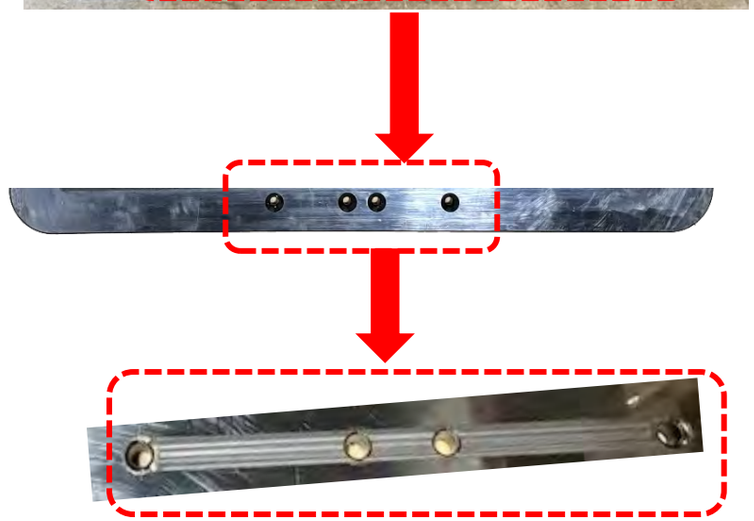
k) USA Made

- All products are produced in Minnesota, USA.

Features of RUSB (Reusable Universal Skid Board)

1) **RUSB replaces plywood skid.**
2) **RUSB has pre-drilled holes.**
3) **RUSB has groove between the holes.**
4) **RUSB is cut to airdrop specs (48” ± 1/4”).**
5) **RUSB has smooth sides.**
6) **RUSB will survive 35 to 100 (or more) airdrops without degradation.**
7) **RUSB reduces full labor, storage, and shipping costs.**
8) **RUSB improve aircrew readiness.**
9) **RUSB comes with optional handles.**
10) **Floatable**
11) **RUSB accommodates multiple layouts:**
    36 by 36” , 36 by 42” , 42 by 42”





Groove along the side holes on RUSB

RUSB optional handles

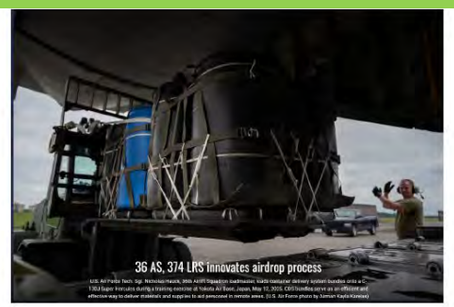
Cost Saving for Aerial Delivery

Savings: $238 per CDS airdrop

Payback is less than 50 airdrops (often less than 1 year)

Our estimated Savings was validated by Yokota AFB in Japan in May 2025.

USAF Times Article on REAL & RUSB



NEWS UNITED STATES AIR FORCE

36 AS, 374 LRS innovates airdrop process

Published May 15, 2025

By Airman Kayla Karelas

374th Airlift Wing Public Affairs

YOKOTA AIR BASE, Japan -- The 36th Airlift Squadron and 374th Logistics Readiness Squadron implemented a new, reusable system that increases efficiency and cuts overall cost for building container delivery system bundles at Yokota Air Base, Japan, April 10.

The 36 AS routinely conducts airdrop training with CDS bundles crafted by the 374 LRS to maintain readiness and the ability to swiftly deliver supplies across the Indo-Pacific region.

"CDS bundles are one of the most versatile tools in our air supply kit," said Master Sgt. Keith Dengel, 36 AS instructor loadmaster. "CDS drops can deliver a lot of material and equipment in a short period of time to keep the troops on the ground as effective as possible."

Previously, the 374 LRS crafted bundles using plywood and cardboard honeycomb as disposable platforms for airdrops. The new system replaces the disposable platforms with a reusable energy-absorbing layer and reusable, universal skid board - saving approximately $116,000 per year.

"With the previous process, we have to recut the cardboard and rebuild from the ground up," said Tech. Sgt. Abel Moreno, 374 LRS combat mobility flight section chief. "The new system helps alleviate a lot of manpower and resource waste."

Additionally, bundles prepared with the new system were built in an average time of 20 minutes, saving Airmen over an hour of time per bundle the previous process.

Yokota is currently one of six aircrew training bases in the Air Force to use this system.

"We are ready for anything because we practice these skills on a daily basis," said Dengel. "Nothing happens without the time, effort and support of Team Yokota."

By reducing costs, conserving resources and streamlining manpower, the new platform allows the unit to allocate support to other mission-critical operations. As the Department of Defense logistics hub for the Indo-Pacific region, this collaboration between the 36 AS and 374 LRS highlights a commitment to excellence to the installation mission: sustaining and maneuvering forces at the speed of need.

Yokota AFB Conducted their own savings calculations in May 2025

USAF Times Article on REAL & RUSB

✓ 374 Logistics Readiness Squadron, Yokota AFB, Japan

May 15 2025

The 36 AS routinely conducts airdrop training with CDS bundles crafted by the 374 LRS to maintain readiness and the ability to swiftly deliver supplies across the Indo-Pacific region.

"CDS bundles are one of the most versatile tools in our air supply kit," said Master Sgt. Keith Dengel, 36 AS instructor loadmaster. "CDS drops can deliver a lot of material and equipment in a short period of time to keep the troops on the ground as

✓ Weekly CDS Airdrops: 10, 49 weeks/year

- Average Savings per Airdrop: $237
- Our projected Savings per Airdrop: $238

time per bundle the previous process.

Yokota is currently one of six aircrew training bases in the Air Force to use this system.

"We are ready for anything because we practice these skills on a daily basis," said Dengel. "Nothing happens without the time, effort and support of Team Yokota."

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Cost Saving for Actual Ops and Missions

In less than 2 years, the cost to Ops and Missions will be near zero.

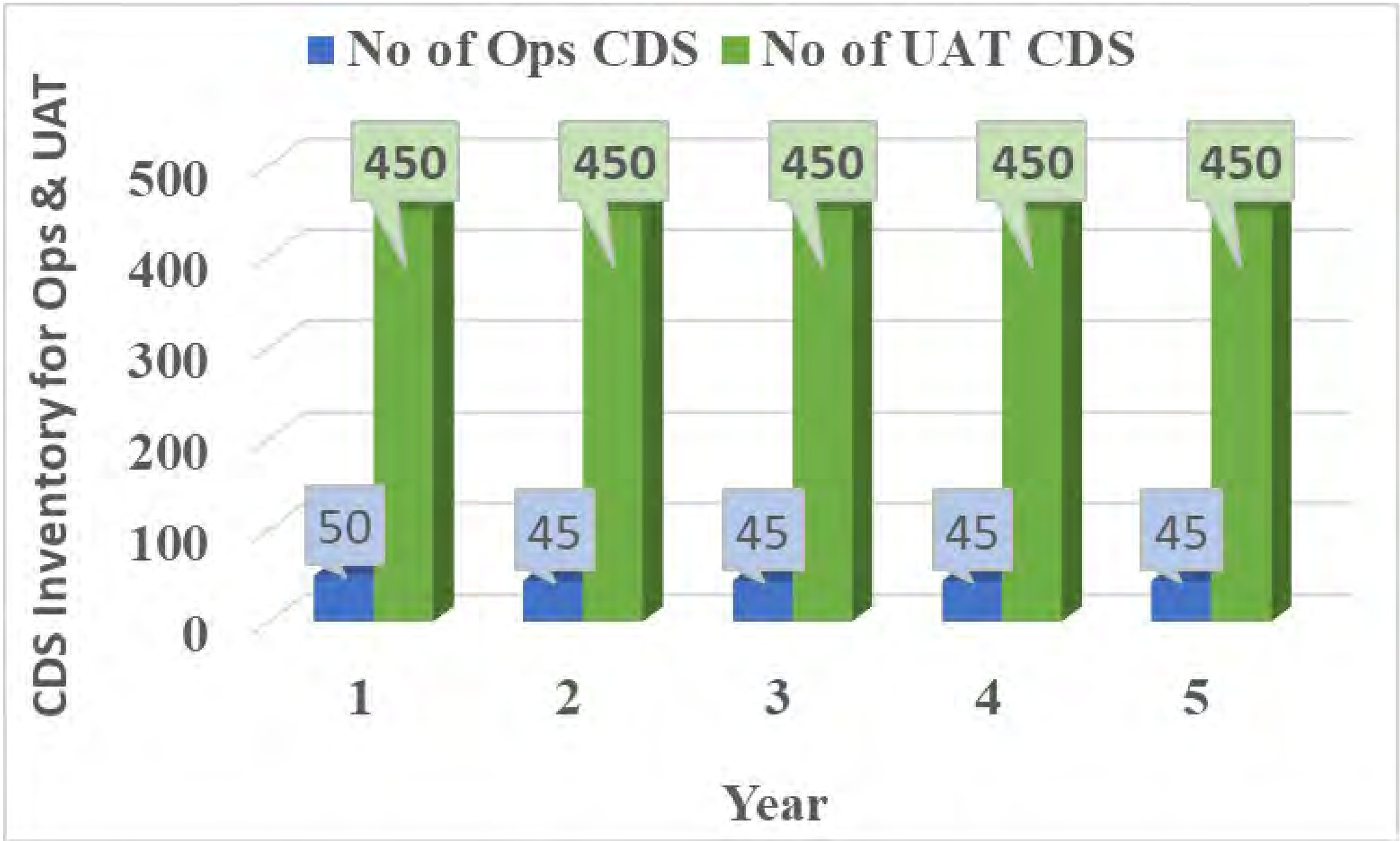
Cost Saving for Actual Ops and Missions

Key Assumptions

Assumptions	
Total Annual CDS Airdrops	12000
CDS Order in Year 1	500
No of annual drops per CDS	24
Layout	4242
Waterproof CDS Package ID	CDS4242S100BSbBbTbBe
Price per Waterproof CDS Package	$13,461.14
Useful Life for Reusable CDS, Drops	100
% For Ops & Mission	10%
Number of Units for Ops	50
Number of Units for Training	450
No of UAT / Year / CDS	24
No of UAT / Month / CDS	2
Total Purchase Price-Reusable	$6,730,571.67
Cost for Ops	$673,057.17
Cost for UAT	$6,057,514.51
Cost of One-time use	$366
Cost of one-time use per drop	$366
Cost of Reusable per drop	$135
Savings per drop	$231

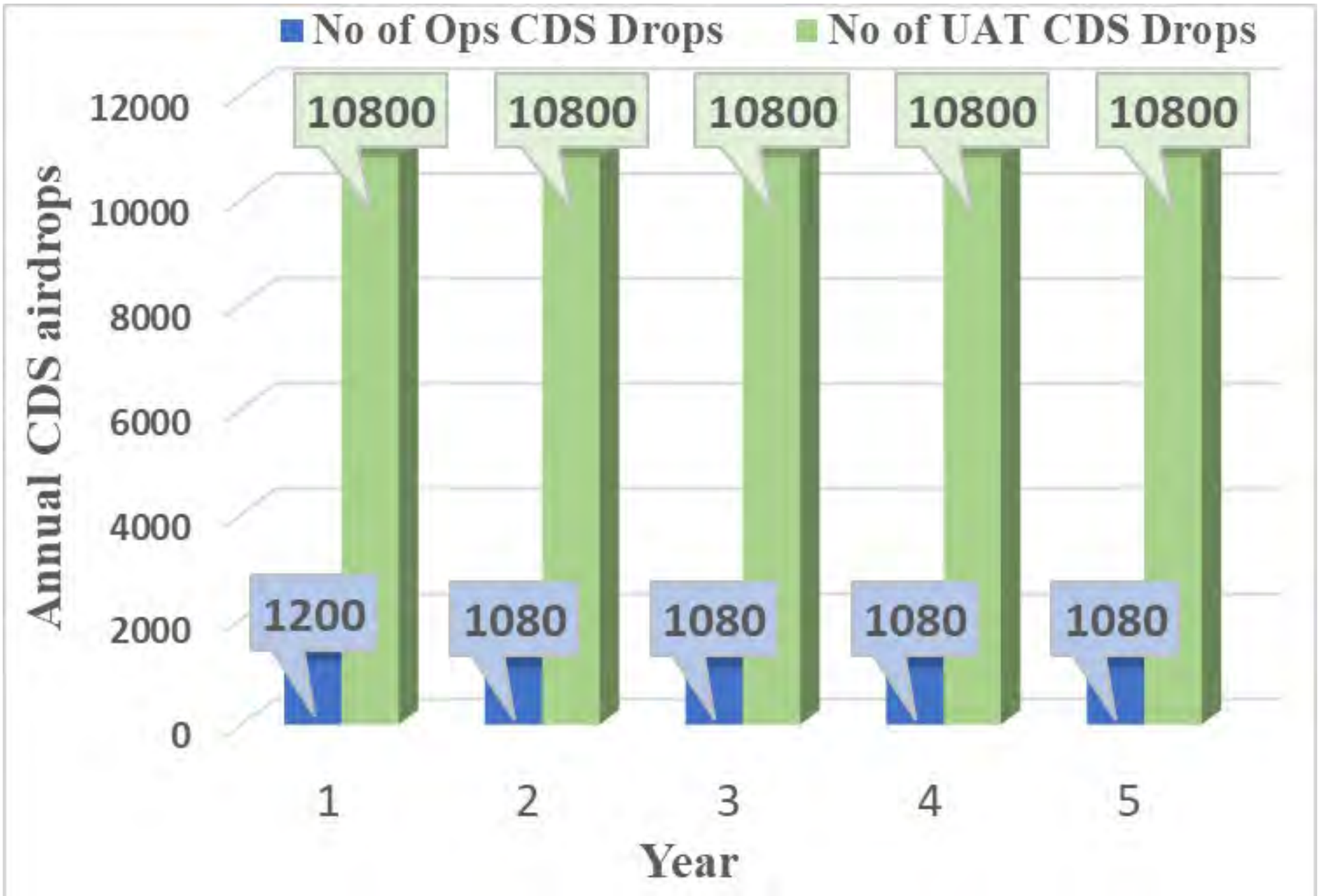
Cost Saving for Actual Ops and Missions

Annual CDS Inventory



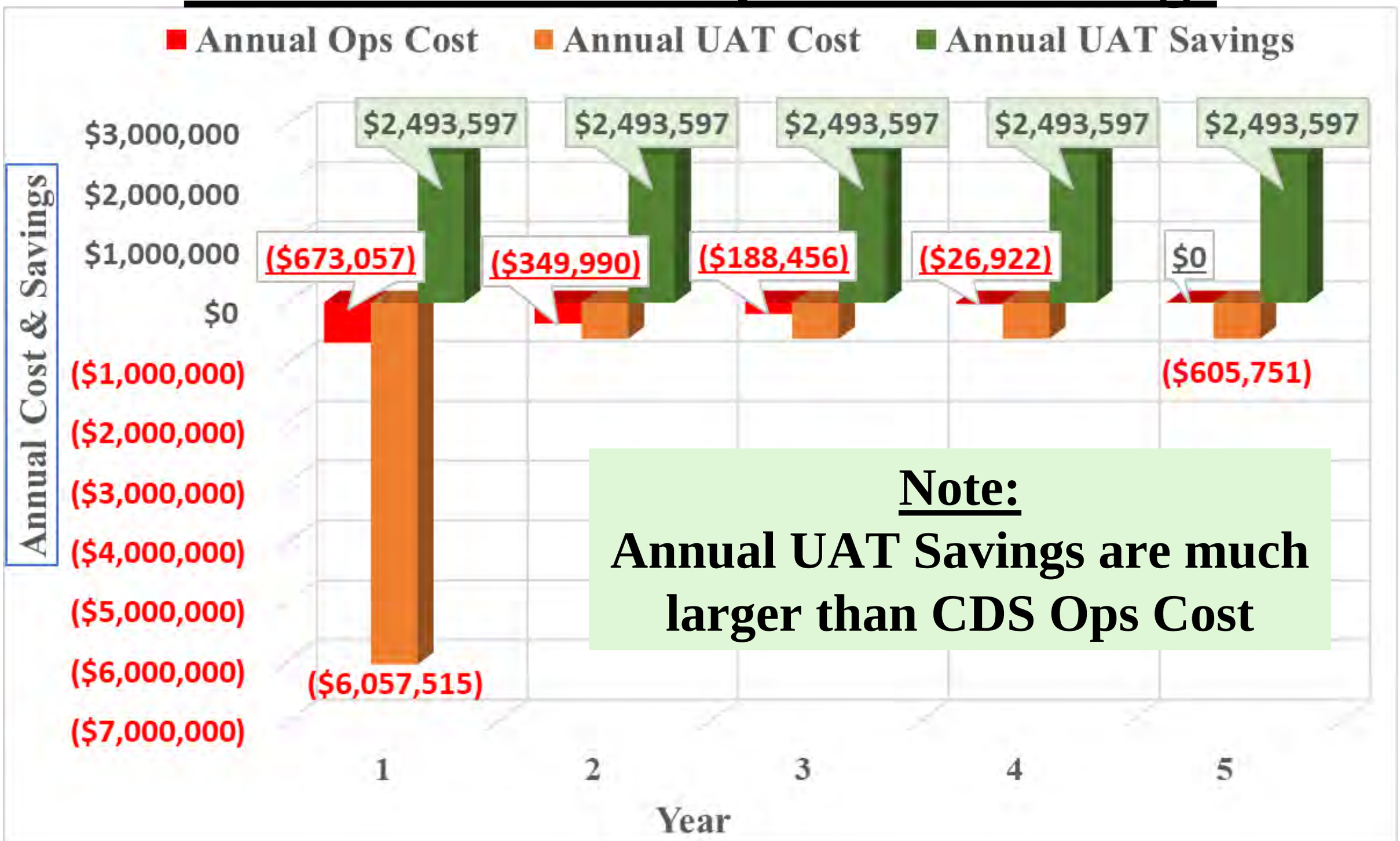
Cost Saving for Actual Ops and Missions

Annual CDS Airdrops



Cost Saving for Actual Ops and Missions

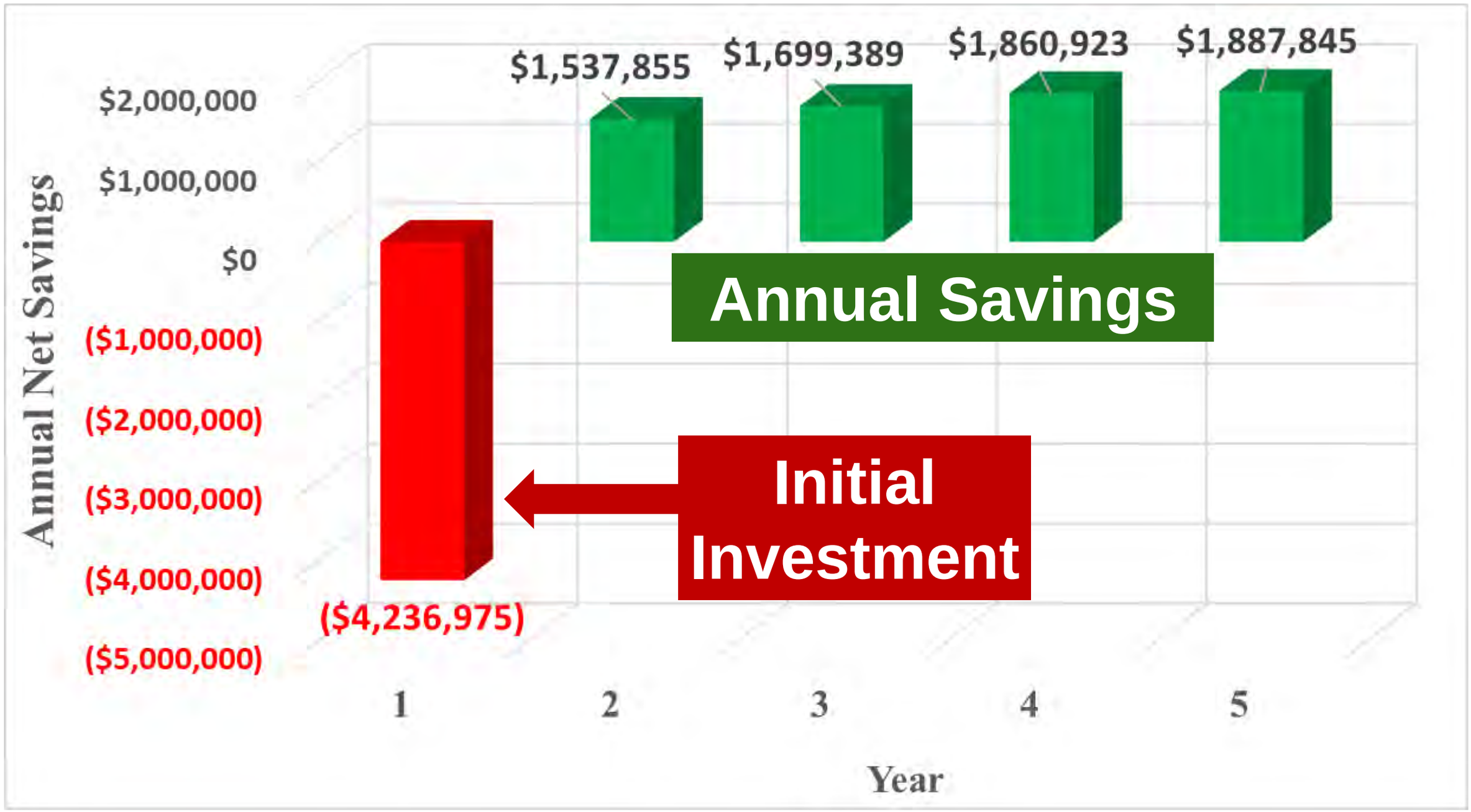
Annual CDS airdrop Cost & Savings



Note:

Annual UAT Savings are much larger than CDS Ops Cost

Cost Saving for Actual Ops and Missions
Annual Net Savings



One-Time Use versus Reusable in Ops

1) Financially:	**Reusable is superior**
2) Payload Protection:	**Reusable of 40% better**
3) After Drop:	**Reusable can be used as shelter** **Reusable can be used for sleeping pad**
3) Usability:	**Entire package (payload plus platform) is useful**

Bottom Line

REAL & RUSB (Reusable Aerial Delivery Products) can be used for a magnitude of personal needs by people during any humanitarian aid.

Enhanced Sustainability through Water Conservation and Minimizing Material Waste

REAL has 99% less volume for storage than traditional EDM
REAL has 95% less weight than EDM

REAL has 99% less waste.

Improved Sustainability

EDM (Cardboard honeycomb) equivalent to one REAL

Left (Cardboard Honeycomb)
1) **200 EDM (Cardboard Honeycomb)**
2) **Total dry weight ~ 89 lbs**
3) **Total dry volume ~ 85,380 in^3**

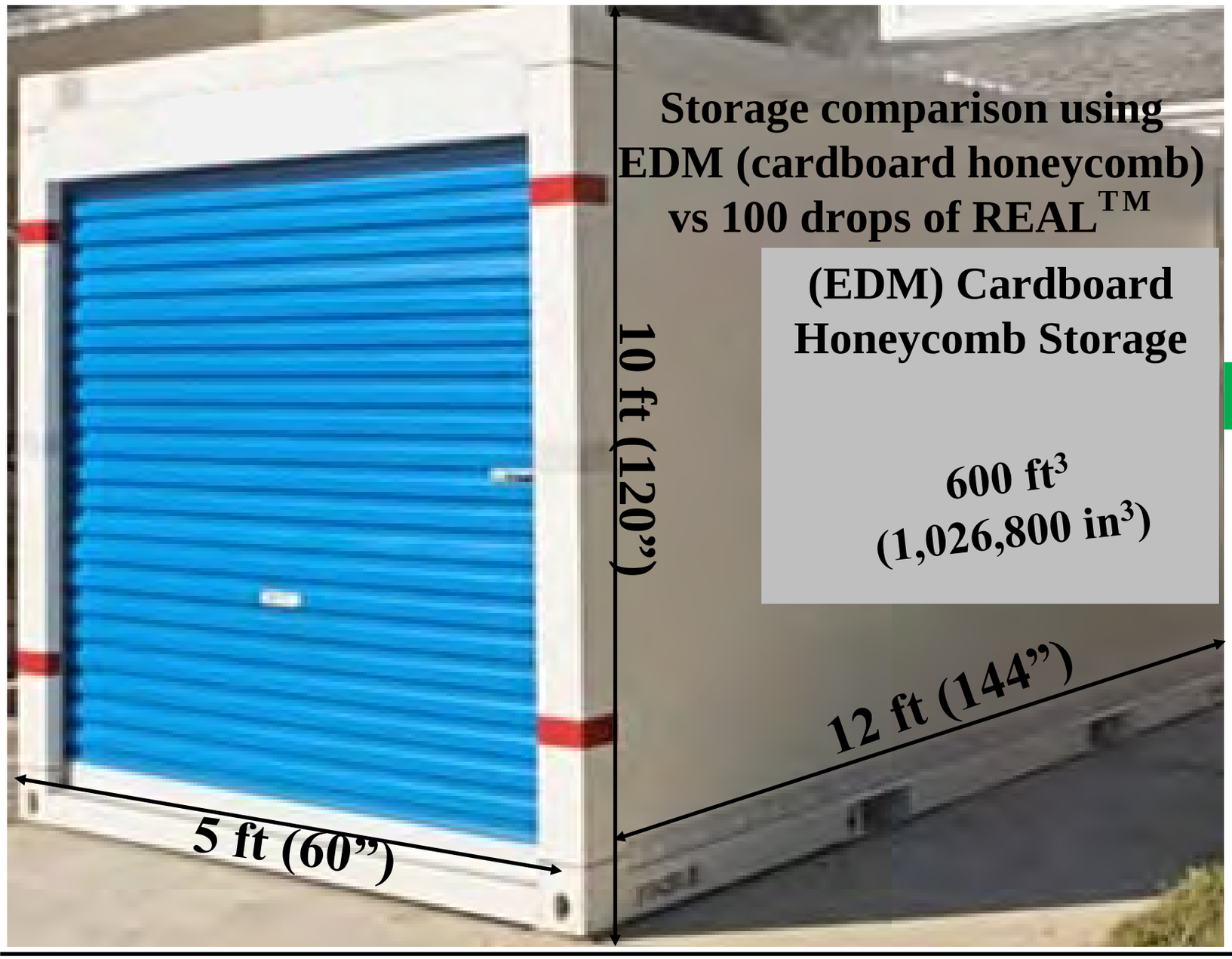
REAL is reusable for 100 drops

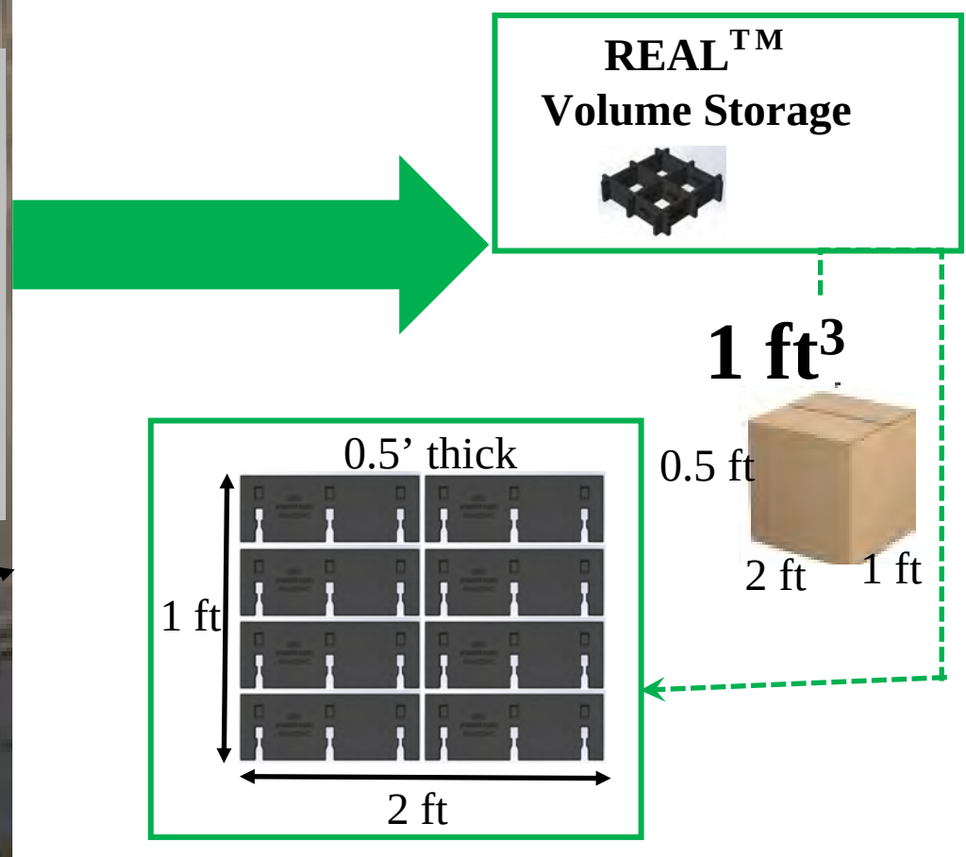
1 REAL06M12
Total weight ~= 4.4 lbs
Total volume ~= 101 in^3

Comparison – 100 drops/ft^2 of EDM (cardboard honeycomb) vs 100 drops/ft^2 of REAL

Reduced Volume Storage by 600 times

REAL™ has 99% less volume for storage than traditional EDM
REAL™ has 95% less weight than EDM





Unassembled **REAL™** and layout for packaging/shipping/Storage

Storage Options after used in a Airdrop platform

12” REAL
Stacked 12” Cells

6” REAL
Stacked 6” Cells

Assembled & folded 12” Module

Step 1

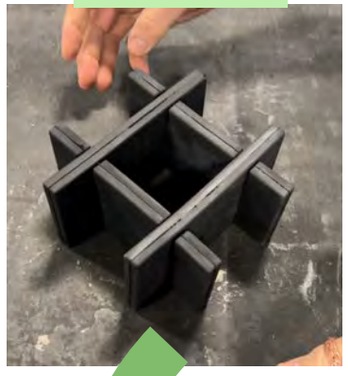
Step 2

Step 3

Step 4

Assembled & folded 6” Module

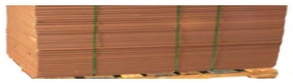
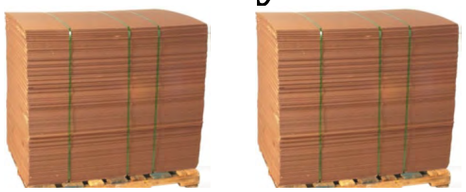
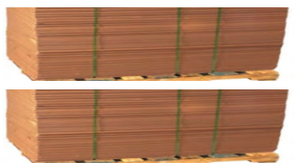
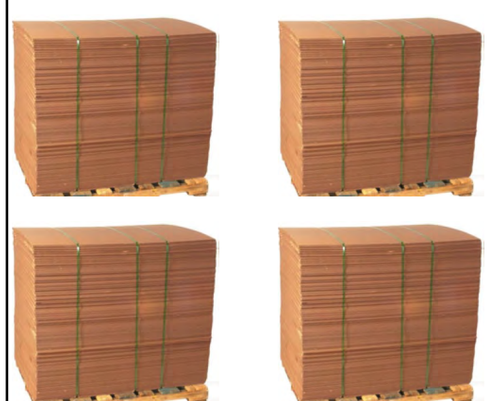
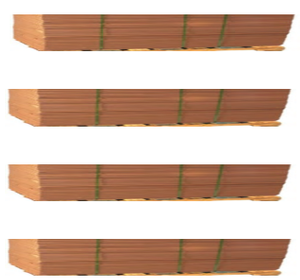
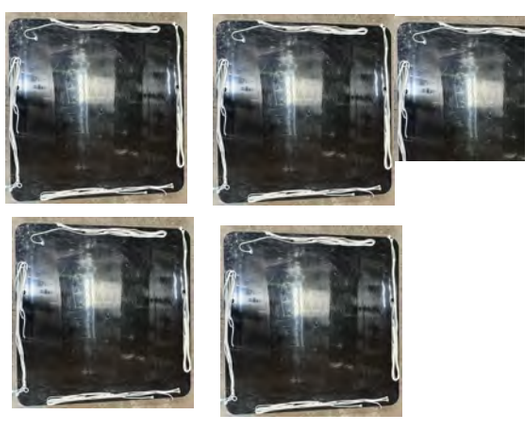
Step 1



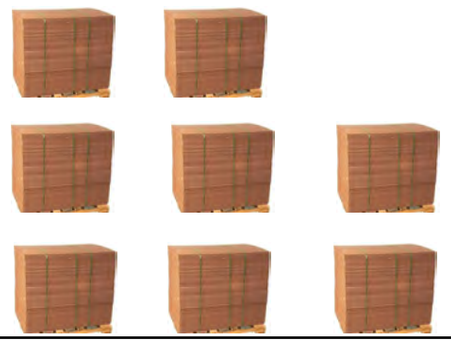
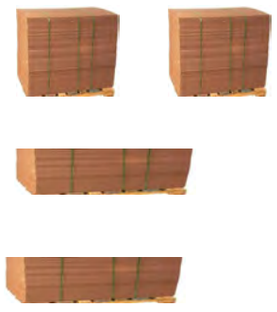
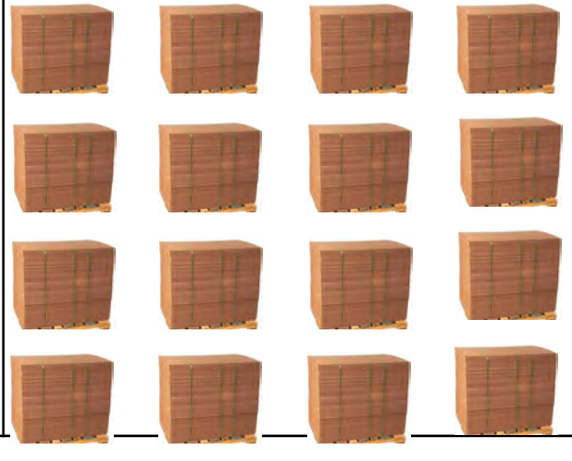
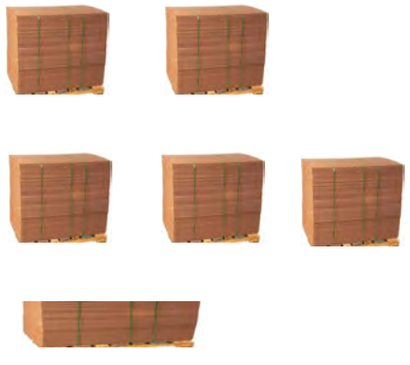
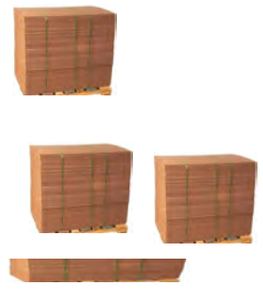
Step 2

Step 3

Plywood use versus RUSB (Reduced Waste by (95-99%))

No of Airdrops	Plywood use at different AF Bases Plywood Skid Replaced after X drops			RUSB (1 per 100 drops)
	1 (Little Rock)	3	5	
120 (48 by 48”)	120 Plywood 	40 Plywood 	24 Plywood 	1.2 RUSB 
240	240 Plywood 	80 Plywood 	48 Plywood 	2.4 RUSB 
480	480 Plywood 	160 Plywood 	96 Plywood 	4.8 RUSB 

Plywood use versus RUSB (Improved (95-99%) Sustainability)

No of Airdrops	Plywood use at different AF Bases Plywood Skid Replaced after X drops 1 (Little Rock)	3	5	RUSB (1 per 100 drops)
960	940 Plywood 	320 Plywood 	192 Plywood 	9.6 RUSB 
1920	1920 Plywood 	640 Plywood 	384 Plywood 	19.2 RUSB 

Current Status

Current Status Air Force Bases have been using Reusable REAL & RUSB since Q4 2024

Current Status

Reusable in Use by:

1) Little Rock, Arkansas, USA

(a) more than 62 Airdrop as of end of April 2025

(b) are very happy with REAL & RUSB

(c) LR has 8 full RUSB & REAL packages

(d) plan to changeover the entire line in 2025-26

(e) quote was requested for 30 CDS bundles

2) Hurlburt Field, Florida, USA

(a) 151 airdrops as of end of Sept 2025

(b) are very happy with performance

(c) plan to changeover the entire line

(d) plan to remove their sustainability program for cardboard honeycomb and plywood

(e) quote was requested for 10 CDS bundles

Current Status (continued -2)

Reusable in Use by:

3) AFB Ramstein-Mie, Germany

50 airdrops (6 each of the CDS) as of end of Nov 2025

RUSB & REAL survived a free fall (parachute did not open)

A quote for spare REAL parts was requested

4) 109th Airlift Squadron, Minneapolis, MN, USA

81 airdrops (6 each of the CDS) as of end of Dec 2025

8 CDS bundles are in use

Goal is to replace all CDS with reusables.

5) 109th AW Base, Scotia, NY, USA

49 CDSs with RUSB have been successful airdropped

Each RUSB has been dropped 12 times (as of July 2025)

Current Status (continued -3)

Order Received and Delivered:

6) 374 Logistics Readiness Squadron, Yokota AFB, Japan

Yokota AFB has 4 CDS package

CDSs were successfully airdropped 131 times as of Dec 2025.

7) 773 Joint Base Elmendorf-Richardson, AK, USA

10 CDSs were successfully airdropped 500 times as of Dec 2025

After recovery, all they needed was tightening and placing a new parachute on each CDS before they were loaded for next airdrop.

Current Status (continued - 4)

8) 97th Logistics Readiness Squadron, Altus AFB, OK, USA

8 Altus AFB purchased 8 CDS packages.

34 CDS airdropped as of Nov 2025.

One incomplete parachute opening – no damage.

9) 193 Special Operations Squadron, Palatine, PA, USA

193 SOS has 12 CDS packages.

43 CDS airdropped as of Nov 2025.

One of the parachute did not completely open, no damage was reported.

Current Status (continued - 4)

10) 27th SOLRS / LGRDAS, Cannon AFB, NM

Purchased the following in Sept 2025.

2 RUSB Skid Boards, 1 Base Board, 1 Top Board.

2 CDS airdrop as of Oct 2025.

11) 347 OSS/OSK ADSB, Moody AFB, GA

Purchased 15 CDS packages in Sept 2025.

14 airdrops as of Dec 2025.

Current Status (continued -6)

Total Number of Airdrops by Current End-users at Air Force Bases

Current Status

Reusable Equipment Purchased (Q4-2024n to Q4-202

Base	Base Description	CDS	Skid Board RUSB	REAL Modules	Type of Modules			Belt
					06M12	04M06	23M126	
1	Little Rock, AR	8	8	128	72	8	48	8
2	Hurlburt Field, FL	10	10	160	90	10	60	10
3	AFB Ramstein-Mie, Germany	10	10	160	90	10	60	10
4	109th Airlift Squadron, MN	6	6	96	54	6	36	6
5	109th AW Base, Scotia, NY	4	4	0	0	0	0	0
6	374 Logistics Readiness Squadron, Yokota, Japan	3	3	48	27	3	18	3
7	773 Joint Base Elmendorf-Richardson, AK	10	10	160	90	10	60	10
8	97th Logistics Readiness Sq, Altus AFB, OK	8	8	128	72	8	48	8
9	193rd Special Ops Squadron, Middletown, PA	12	12	192	108	12	72	12
10	27th SOLRS / LGRDAS, Cannon AFB, NM	1	1	16	9	1	6	1
11	347 OSS/OSK ADSB, Moody AFB, GA	15	15	240	135	15	90	15
Total		**87**	**87**	**1328**	**747**	**83**	**498**	**83**

Summary - Why Using REAL & RUSB?

- **Financially: Save cost of ownership**
- **RUSB and REAL have been successfully airdropped by Air Force Bases more than 1117 times.**
- **No of CDS drops exceeded 35 at two AFBs.**
  - **374 Logistics Readiness Squadron, Yokota AFB (44)**
  - **773 Joint Base Elmendorf-Richardson, AK (50)**
- **We had 5 incomplete parachute opening - No damage to RUSB or payload on CDS platform.**
- **Sustainability: REAL & RUSB are sustainable.**
- **Readiness: Improving Arm Forces readiness.**
- **Weatherproof: Resistance to moisture/rain/temperature.**

Airdrops with Parachute Not properly opened REAL/RUSB CDS Airdrops

* Airdrop at AFB Ramstein-Mie, Germany – October 2024

Mass of 4 CDS airdrops was captured.
REAL/RUSB CDS were not damage.
No Damage to Barrels.

* Airdrop at AFB Ramstein-Mie, Germany – June 2025

2 CDS bundles get caught up with each other & totally snagged for the first half of the drop.
Resulted in parachute damage.
RUSB bundle was fine (no damage).

No Damage to RUSB or Barrel when Parachute did not open

Airdrop at AFB Ramstein-Mie, Germany October 2024
No damage to RUSB or barrels even when parachute did not open

Airdrops with Parachute Not properly opened
REAL/RUSB CDS Airdrops

*** 773 Joint Base Elmendorf-Richardson, Alaska AFB (May 2025)**

First Mass of 4 was dropped with all parachute properly opened.
Second Mass of 4 had 2 incomplete parachute openings.
RUSB bundle was fine (no damage), see following images.

*** 97th Logistics Readiness Squadron, Altus AFB, OK, USA**

First Mass of 4 was dropped with all parachute properly opened.
Second Mass of 4 had 2 incomplete parachute openings.
RUSB bundle was fine (no damage), see following images.

*** 193 Special Operations Squadron, Palatine, PA, USA**

First Mass of 4 was dropped with all parachute properly opened.
Second Mass of 3 had 1 incomplete parachute openings.
RUSB bundle was fine (no damage), see following images.

No Damage to RUSB or Barrel when Parachute did not open

2nd Mass of 4 with incomplete parachute openings, AK

No Damage to RUSB or Barrel when Parachute did not open

Conditions on ground, Altus AFB, OK, July 17, 2025:

Parachute not open properly, it was torn.

No Damage to RUSB or Barrel when Parachute did not open

193 Special Operations Squadron, Palatine, PA, USA

Second airdrop: mass of 3 CDSs

CDS are in very good conditions after impacting the ground in PA DZ.

Current Status (continued - 5)

Quotes have been sent:

1) 920th LRS, Aerial Delivery, Patrick SFB, FL, USA
2) 68th Rescue Squadron-AFB, AZ, USA
3) 106th ATF LRS/LGR, Westhampton Beach, NY, USA
4) 165th Airlift Wing, Savannah ANGB, GA, USA
5) 166th LRS/ATF DEX, New Castle, DE, USA
6) Joint Base Charleston, SC, USA
7) 41st Aerial Port Sq, Keesler AFB, MS, USA
8) 76 APS/Aerial Delivery, 910th AFRB, Youngstown, OH, USA
9) 647th Logistics Readiness Sq., Joint Base Pearl Har, HI, USA
10) Edwards Air Force Base, CA, USA
11) Kadena AFB, Okinawa, Japan
12) Yokota AFB, Tokyo, Japan
13) Training Center for Paratroopers, SOR, Belgium AFB (NATO)

NATO

Current Status (continued - 5)

Interested Parties at Army:

1) Chief Joshua D Gaither - WO1 USARMY 11 ABN DIV 2 BCT, Army Base in Alaska

2) Joshua Hollar, USASOC Parachute Rigger, Fort Bragg, NC

3) Jonathan C Dawson, SOCOM, Special Ops, Army

4) 2LT Judson Harmon, Army Base in Ramstain, Germany
Joshua Martinez, Army Base in Ramstain, Germany
Elijah Melendez-Eyster, Army Base in Ramstain, Germany
CW5 Anthony J Haiduk, Army Base (21 TSC) in Ramstain, Germany

Summary of Customers and Interested Bases

- **Air Force End Users / Customers in USA & Overseas**
- **12 Air Force End Users have requested quotes**
- **4 Army bases have expressed strong interest**
- **By the end of 2026, it is projected REAL and RUSB will be used in 10 additional AF bases**

Q/A

Questions

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Website for more in formation:

1) https://www.qrdc.com/library/real-reusable-energy-absorbing-layer/
2) https://www.qrdc.com/