FALL/WINTER 2024

DROP ZONE

EXPEDITIONARY & SPECIAL WARFARE JUMP SAFETY NEWSLETTER

SAN DIEGO - The U.S. Navy Parachute Team, the "Leap Frogs", fly in Fleet Logistics Multi-Mission Squadron (VRM) 30's CMV-22B Osprey to conduct a parachute demonstration during the San Diego Padres' Salute to the Navy, Aug. 25, 2024. The Leap Frogs are the official parachute demonstration team of the U.S. Navy and are part of the Naval Special Warfare Command. (U.S. Navy photo by Mass Communication Specialist 1st Class Keenan Daniels)

IN THIS ISSUE

Annual Malfunction Officer Training Requirement.....1

Assessment Key Findings and Observations.....2-3

Welcome Gunnery Sgt. Doody....4

Reported Malfunctions and Incident Breakdowns.....5

Assessment One-Liners.....6

Future Assessments.....6

CONTACT US

Naval Safety Command
757-444-3520
(DSN) 564-3520

Jump Analysts Group Ring
757-444-3520, ext. 7842

Email
NAVSAFECOM_CODE40_EXW_NSW@us.navy.mil

RMI Help Desk
866-210-7474

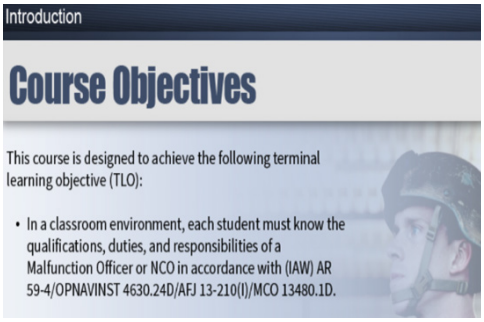
To see our previous Drop Zone newsletters, copy and paste this web address:

https://navalsafetycommand.navy.mil/Media/Mags-Pubs/Diving-Safety-Lines-Drop-Zone-Newsletters/

ANNUAL MALFUNCTION OFFICER TRAINING REQUIREMENT

Per OPNAVINST 4630.24E, a Navy malfunction officer (MO) will be a commissioned officer, warrant officer or petty officer with a minimum grade of E–5. The MO will be a rated aircrew survival equipmentman, parachute rigger (PR) holding NEC 773A, who occupies an authorized position and is current and technically proficient with airdrop, parachute recovery and both personnel and cargo parachute systems. The MO must be appointed in writing by the commanding officer and must receive refresher training annually.

One way to complete this training is by logging into the JKO link, https://jkodirect.jten.mil/atlas2/page/login/login.jsf, course number A-US1400. Individuals complete the required training found on the website and unit-specific training conducted by the unit's designated MO trainer. Individuals are retrained and recertified annually. Maintain training or certification records at the unit level.



ASSESSMENT KEY FINDINGS AND OBSERVATIONS

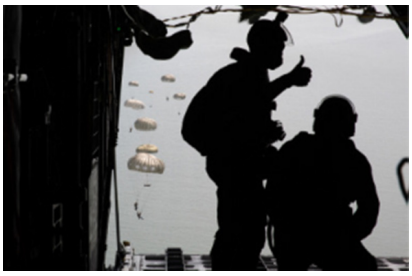
Parachute Packing Issues

Naval Safety Command assessment teams are seeing various parachute packing discrepancies from packed ready-for-issue parachutes that could lead to injury or death. Due to the high-risk nature of parachute operations, these types of discrepancies not only pose additional risk to the jumper, but to the mission, and are unacceptable.

Packed and ready-for-issue parachutes:

- Three cotton webbing ties on one parachute were incorrectly secured by not completing locking knots for the left and right riser connector links and the canopy apex deployment bag.
- Two parachutes from the same Marine Corps command had suspension line twists (one full twist and three full twists).
- One parachute was packed with a damaged gore panel.

These severe deviations from packing procedures could have resulted in catastrophic events such as a partial or total malfunction affecting deployment sequence or a main parachute partial collapse not attaining full inflation resulting in an unnecessary main parachute cut-a-way and reserve parachute deployment. The reserve canopy is there as a backup when the main parachute cannot safely bring the jumper to the ground. Unnecessary activation comes with its own set of challenges and dangers, such as the reserve becoming entangled in the main chute resulting in neither chute functioning properly. A parachutist should never have to use their reserve because of a packing mistake.



Possible Factors:

- Packing in areas without sufficient lighting (a discrepancy noted at several Marine Corps units).
- Distractions such as conversations, knocks at the door, etc.
- Rushing the job due to uncomfortable environment (hot, cold, etc.), perceived pressure, racing against the clock or others, end of the day/week, etc.
- Insufficiently trained personnel.

Recommendations:

- Reduce distractions and plan sufficient time to pack; do not rush these live-saving steps.
- Ensure quality assurance (QA) inspectors are providing direct supervision and perform every QA check.
- If adequate numbers of personnel are lacking, research obtaining additional personnel support.
- Conduct self-assessment and self-correction. These are concepts that must be embraced by all commands to "Get Real (self-assess) and Get Better (self-correct)" to protect our warfighters and preserve warfighting capability.
- If additional training, tools or time are needed, seek support from your chain of command so they can help ensure these life-saving devices are packed per applicable instructions – first time, every time.

The goal is always zero discrepancies. Help us help you by passing the word and raising awareness up and down the chain.

The following is an excerpt from NAVSEA SS400-A1-MMO-010, depicting the proper procedures for securing the 1/4-inch cotton webbing ties.

Left, U.S. Navy explosive ordnance disposal (EOD) technicians assigned to EOD Mobile Unit 6 and EODMU 12 descend during a static line jump from a C-130H3 Hercules assigned to Air Force Reserve's 700th Airlift Squadron during a static line insertion mobility drill, April 20, 2023. (U.S. Navy photo by Mass Communications Specialist 3rd Class Nicholas Skyles)

Tying a Surgeon's Knot Locking Knot

1. Take two lines and wrap one around the other twice.
2. Form an overhand knot above the wraps using the two working ends of the lines.
3. Flatten the knot by applying pressure on the two standing parts.
4. Form another overhand knot above the wraps using the two working ends of the lines.
5. Tighten the knot with even pressure on the working ends and standing parts (Figure 24).

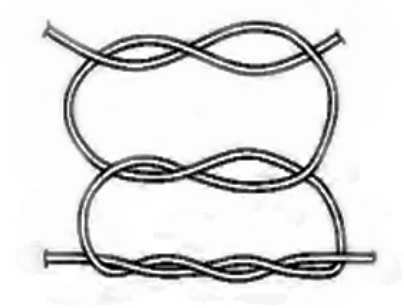


Figure 24. Surgeon's Knot Locking Knot.

Tying the Breakcord Tie

Before stowing canopy into the deployment bag, the canopy must be attached at the vent loop to the deployment bag. Proceed as follows:

1. Roll back the sides of the deployment bag (Figure 45, item 1) until the static line cotton buffer is exposed.
2. Secure the canopy loop to the static line cotton buffer using a 36-inch length of Type 1, 1/4-inch cotton webbing, doubled (Figure 45, item 2). Pass one end of the double webbing through the cotton buffer loop (Figure 45, item 3), through the vent loop of the canopy (Figure 45, item 4), and back through the cotton buffer loop.

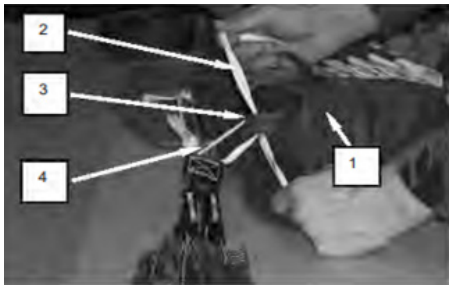


Figure 45

ASSESSMENT KEY FINDINGS AND OBSERVATIONS

3. Tie the ends of the webbing (Figure 46, item 1) over the cotton buffer loop (Figure 46, item 2) using a surgeon's knot locking knot, allowing for a 3-inch loop between the vent loop and cotton buffer loop. Trim running ends to approximately 2 inches.

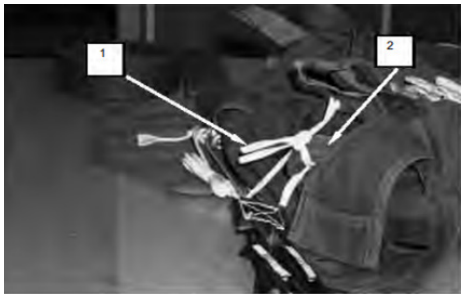


Figure 46

MC-6

The below pictures are clear and concise photos from what is depicted in the NAVSEA for the MC-6. It is important to note that this step must be done after every repack and inspected to be sure it is tied correctly.

Figure 1 – Locking knot on riser connector

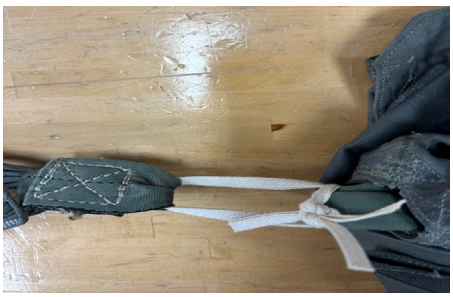


Figure 32- MC-6 Main Canopy

TYING CONNECTOR LINKS AND SUSPENSION LINE PROTECTIVE FLAP

NOTE: Make certain that riser groups are still in proper layout and control lines are routed to the inside of the connector links.

If desired, packer has the option of standing the deployment bag up during the routing and tying of connector links.

1. Using one turn, single, 14-inch length of Type 1, 1/4-inch cotton webbing (Figure 58, item 1), pass an end through the right bottom connector link tie loop (Figure 58. item 2), through the right pair of connector links (Figure 58, item 3), and up through the top right connector link tie loop (Figure 58, item 4).

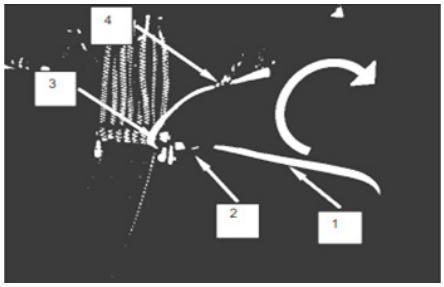


Figure 58

2. Repeat step 1 for the other side.
3. Cover suspension lines with the suspension line protector cover and route the connector link tie through the protector cover flap.
4. Secure ends with a surgeon's knot locking knot (Figure 59, item 1). Trim running ends to approximately 2 inches (Figure 59, item 2).
5. Repeat steps 4 and 5 for opposite connector link.

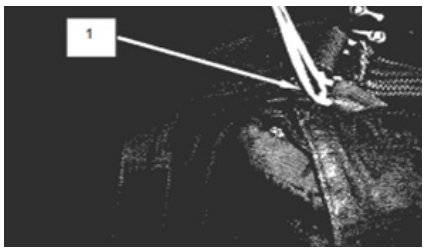


Figure 59, item 1

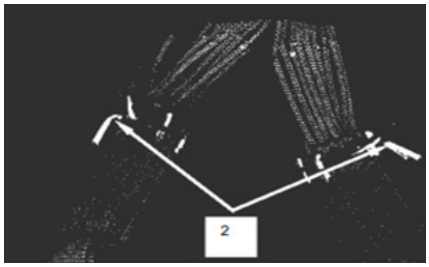


Figure 59, item 2

DROP ZONE

Commander, Naval Safety Command
RADM Dan "Dino" Martin

Command Master Chief
CMDCM (AW/SW) Dean Sonnenberg

EDITORIAL STAFF

Public Affairs Officer
Jeffrey Jones

Media & Communications Division Head
Priscilla Kirsh

Editors
Rebecca Coleman
Leslie Tomaino

JUMP SAFETY DIVISION

Expeditionary & Special Warfare Director
Don Ciesielski

Expeditionary & Special Warfare Deputy Director
Bradley Loftis

Jump Safety Division Head
PRCM Jeff Schmidt

The Team
PRCS Tom Moen
Gunnery Sgt. Doody

Stay Connected

WELCOME GUNNERY SGT. PATRICK DOODY

Welcome Aboard!

We are excited to announce the addition of Gunnery Sgt. Patrick E. Doody to the Expeditionary and Special Warfare Safety Directorate at NAVSAFECOM. He has taken over for Master Gunnery Sgt. Gabriel Machado as the Marine Corps Airborne Operations Program parachute safety data analyst.

Doody entered the Marine Corps in June 2006. Following recruit training, he reported to the Basic Parachutist Course at Fort Benning, Georgia, followed by Parachute Rigger School at Fort Lee, Virginia. Upon completion in March 2007, he was assigned to Echo Company, 4th Recon Bn. in June 2008; he reported to 2D Recon Bn onboard Camp Lejeune, North Carolina. While with 2D Recon Bn he completed the Joint Precision Airdrop System Course, Parachutist High Altitude Oxygen System Course, FAA Senior Rigger Course and the Advanced Maintenance Parachute Course. In January 2010, Doody left active service and reported to Echo Company, 4th Reconnaissance Battalion. He successfully completed SERE School, Open Water Safety Craft Coxswain Course and the Combat Marksmanship Instructor Course. In February 2013, he assessed into the Active Reserve program and received orders to 4th ANGLICO in West Palm Beach, Florida. While with 4th ANGLICO he completed the Static-Line Jumpmaster Course, SNCO Career Distance Education Program, Nonresident Joint Senior Enlisted PME and Multi-Mission Parachute Course.

Gunnery Sgt. Patrick Doody

In February 2015, Doody received orders to Marine Corps Systems Command (MARCORSYSCOM) in Quantico, Virginia. While with MARCORSYSCOM, he held the billets of paraloft chief, parachute safety officer, test jumper, technical manual lead writer, command jumpmaster, command Military FreeFall (MFF) coach, FAA S&TA, Personnel and Aerial Delivery Parachute System advisor and first article testing coordinator for the Parachute System-2. During this period, he completed the Paraloft Chiefs Course, MFF Jumpmaster Course, Resident Sergeants Course, Staff Noncommissioned Officer Career Course, MFF Coaches Course, Tandem Offset Resupply Delivery System Equipment Parachutist (TORDS E&P) Course and the United States Parachute Association (USPA) Accelerated Free Fall Instructor Course. In June 2019, the gunnery sergeant was assigned to 4th Recon Bn and assumed the duties as the battalion's paraloft chief. While with 4th Recon Bn he completed Senior Enlisted Joint PME I and II, Military Augmented Parachute System Course, FAA Master Rigger and USPA Tandem-I Course. In August 2021, he transferred to Company B, 4th Recon Bn, to assume responsibilities of the paraloft chief and the parachute safety officer. While with Company B, Doody completed Advanced School and Naval Officer, Enlisted Primary PME and transferred to active duty. In August 2024, he joined Naval Safety Command.

REPORTED MALFUNCTIONS & INCIDENTS BREAKDOWN

The following chart provides a breakdown of reported malfunctions and incidents from fiscal year (FY) 2022 to the end of FY 2024. The numbers don't lie. Since FY 2022, we have conducted 231,622 jumps with 76 reported malfunctions or incidents. That's a .03 percent jump to incident rate for the last three years. However, as some malfunctions and incidents from FY23-24 are still under investigation and have not been completed in the Risk Management Information safety reporting system, that number will go up.

FY 2022

PLF injury	13
Main parachute failed to open (bag lock)	5
Canopy entanglement	2
Pilot chute deployment	2
Riser step through	2
Cypress activation	1
Closed end cells	1
Premature brake release	1
Unstable body position during deployment	1
Line twists	1
Burble	1
Released combat equipment too low	1
TOTAL	**31**

FY 2023

PLF injury	9
Main parachute failed to open (bag lock)	4
Line over	2
Steamer/snivel	2
Tree landing	2
Riser step through	1
Pilot chute wrapped suspension lines	1
Broken steering line	1
Power line landing	1
Pilot chute activiated in aircraft	1
Reserve parachute activated in aircraft	1
Jumper induced emergency deployment	1
Building impacted (fatality)	1
Dual deployment of main and reserve parachutes	1
Cypress activation	1
TOTAL	**29**

FY 2024

PLF injury	2
Building impacted	1
Main parachute failed to open (bag lock)	3
Canopy entanglement	1
Power line landing	1
Pilot chute line entanglement	1
Jumper exited aircraft prematurely	1
Improper canopy controllability check	1
Burble	2
Off drop zone landing	1
Horseshoe malfunction due to rifle entanglement with lines	1
Line twist and uncontrollable downward spin	1
TOTAL	16

ASSESSMENT ONE-LINERS

1. Wash tubs were degraded to the point where sharp edges could damage equipment.

2. T11R-SP date of manufacture was not annotated correctly on a parachute history card.

3. Non-tactical main parachute control line measurement not annotated correctly on the history card.

4. MC-6 left and right riser connector links and canopy apex deployment bag incorrectly tied.

5. Helicopter Rope Suspension Technique (HRST) tower facility had one rope station without a proper guardrail barrier to prevent a fall hazard.

6. Drying tower had no NAVFAC inspection or certification on file for load points, hoists or crane installed.

7. No designated air operations officer that acts as the command's senior advisor within air operations.

8. Contractor rigger support justification not submitted to OPNAV N951 on a semiannual basis.

9. No ISIC Navy Airborne Operations Program inspection was on file.

10. Missing jump currency for those receiving SKIP and jump pay.

11. Twelve HRST/C equipment carabiners were found in the RFI locker that are not on the ANU.

12. Three years of HRST/Cast records not kept on file.

FUTURE ASSESSMENTS

The NAOP assessment schedule was released via naval message (R 151643Z OCT 24) on Oct. 15, 2024. The message listed the following commands due for inspection:

FEBRUARY 2025
- EOD MU 2 (Virginia Beach, Va.)

MARCH 2025
- EOD MU 11 (San Diego)
- NSWG 1 TRADET 1(San Diego)
- EOD MU 1 (San Diego)
- EOD MU 3 (San Diego)

APRIL 2025
- NSWG 2 LSE 2 (Stuttgart, Germany)

MAY 2025
- EOD MU 5 (Guam, Gu.)
- NSW DET GUAM (Guam, Gu.)

JUNE 2025
- NSWG 2 TRADET 2 (Virginia Beach, Va.)
- NSWG 2 SEAL TEAM 4 (Virginia Beach, Va.)
- NSWG 2 SEAL TEAM 10 (Virginia Beach, Va.)

AUGUST 2025
- NSWG 4 SPECBOAT TEAM 12 (San Diego)
- NSWG 4 SPECBOAT TEAM 22 (Stennis, Ms.)

Do you have feedback or ideas? Let us know!

NAVAL SAFETY COMMAND
EXPEDITIONARY & SPECIAL WARFARE DIRECTORATE
375 A STREET
NORFOLK, VA 23511

Phone : 757-444-3520, ext. 7842
DSN : 564-3520
Fax: DSN 564-3520
Email: NAVSAFECOM_CODE44_EXW_JUMP@navy.mil

www.navalsafetycommand.navy.mil