

PARALOFT ENVIRONMENTAL REQUIREMENTS

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Paraloft Environmental Requirements

As the summer months approach and the weather begins to heat up, those of us that have been around the military for a while are well accustomed to receiving the summer briefs where we are reminded to stay hydrated, use sunscreen, and practice grilling safety.

Keeping those in mind, I want to emphasize another aspect of summer safety we should not lose sight of, and one that also happens to be a Paraloft requirement. I've worked in several Paralofts around the world and many are in areas where the summer month temperatures maintain and exceed 95 degrees F, and humidity levels are dreadful. As we operate in these humid, sub-tropical climates and make these seasonal adjustments for ourselves, it is crucial that we don't forget the working environment requirement to ensure Aviation Life Support Systems (ALSS) remain fully functioning. Regulated temperature and humidity conditions must be maintained in parachute packing facilities, ALSS storage facilities and dry lockers. So, what makes a Paraloft different from any other work center?

Procedures for working with parachutes and other lifesaving equipment are different due to the gear's requirements. As an Aircrew Survival Equipmentman (PR)), you have one of the most important and critical jobs in naval aviation, that of ensuring that the last line of defense for pilots, naval flight officers and aircrew - their lifesaving equipment, functions as designed. In contrast to other aircraft components, many ALSS types of gear have no backup systems, and the nature of this work leaves no margin for error. If everything else fails, these items must function properly and promptly to prevent serious injury or death to our aviators and aircrew.

A critical aspect of those items' proper functioning is maintaining the temperature and humidity conditions where they are packed and stored. An uncontrolled climate contributes to water vapor condensing on the parachute fabric. This dampness provides a breeding ground for mold and fungal growth leading to fabric decay, which is a significant safety issue. The moisture condensed on the substrate deforms and damages the parachute membrane, thereby rendering the parachute unsafe.

The temperature and humidity in the Paraloft must be maintained within specified limits; ideal conditions in the packing area and dry locker are a temperature of 75 degrees F and a relative humidity of 60%. To ensure favorable conditions, recordings of these two variables must be taken three times daily. The allowable ranges for a Ready-



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For-Issue (RFI) parachute pool are 50-95 degrees F with a relative humidity range of 25-80%. The relative humidity is a ratio between the amount of water vapor in the air and the amount the air could hold at a given temperature. The relative humidity limits must be maintained to prevent condensation in actuators and other metal parts.

When storing your life support components, keep in mind other important factors for the storage location inside of the Paraloft. Try to keep the gear away from entry and exit points to prevent the outside temperatures and humidity from frequently contacting the equipment. You should also avoid storing these items near heating apparatuses, hot water pipes, and direct sunlight. Storage areas should be well-ventilated and free of dust and other contaminants such as oil, acid and cleaning fluids. Store these items in bins or other facilities designed to accommodate packed and unpacked parachutes. These facilities should consist of closed lockers or cupboards divided into separate compartments for each item. Open racks or shelves may be used as a substitute for closed lockers. Shelving should be designed to allow storage of parachutes at least 4 inches from walls and 12 inches from the floor.

In closing, different seasons bring different challenges and we need to ensure that we're taking care of fellow shipmates, Marines, and ourselves. Continue to look out for one another and do not lose sight of smaller details. Many mishaps are preventable if we just maintain focus on the basics.