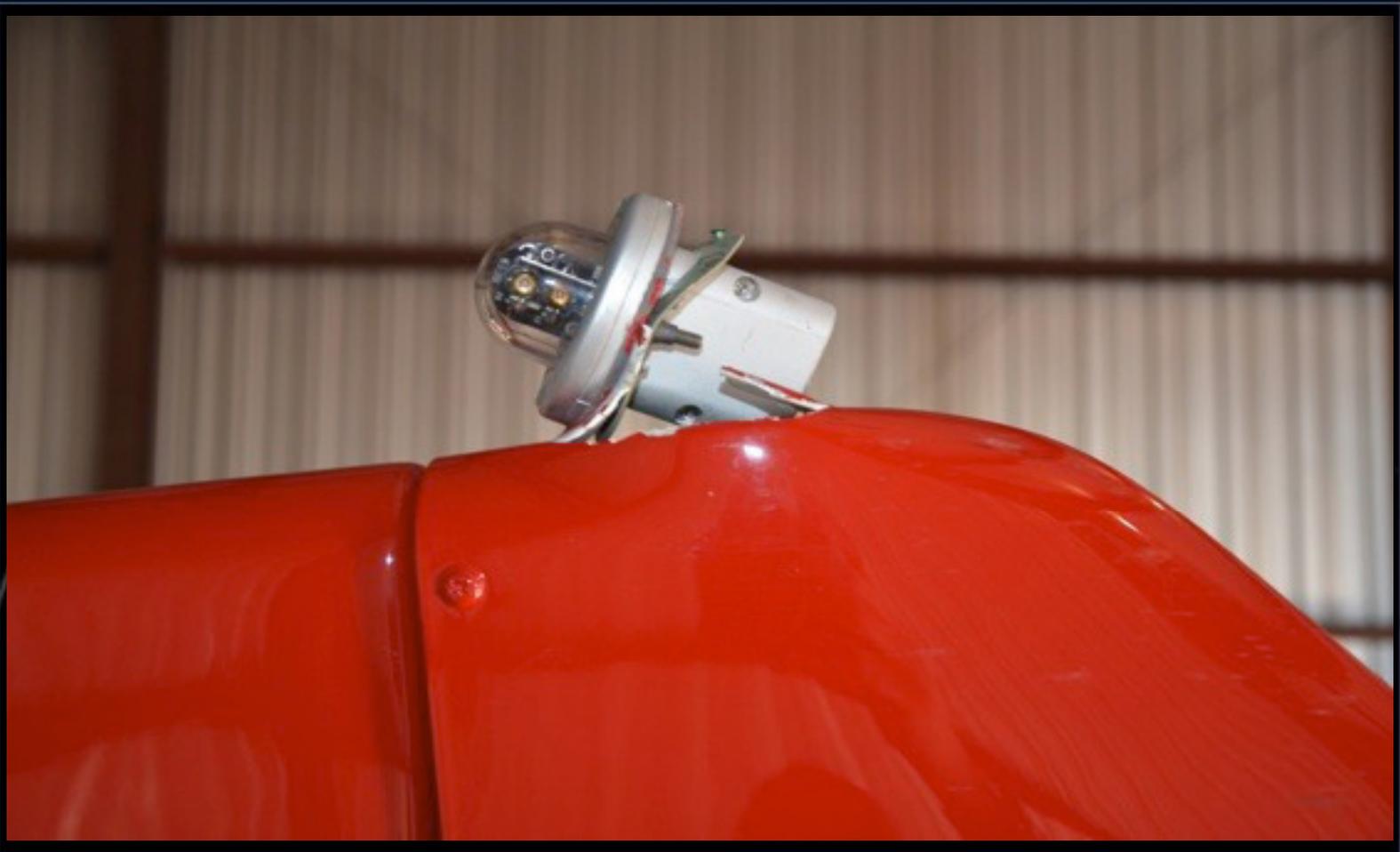




May 2012 National Executive Board Safety Emphasis

Hangar Rash

Col Robert Diduch, National Safety Officer
Frank Jirik, NHQ Safety Manager

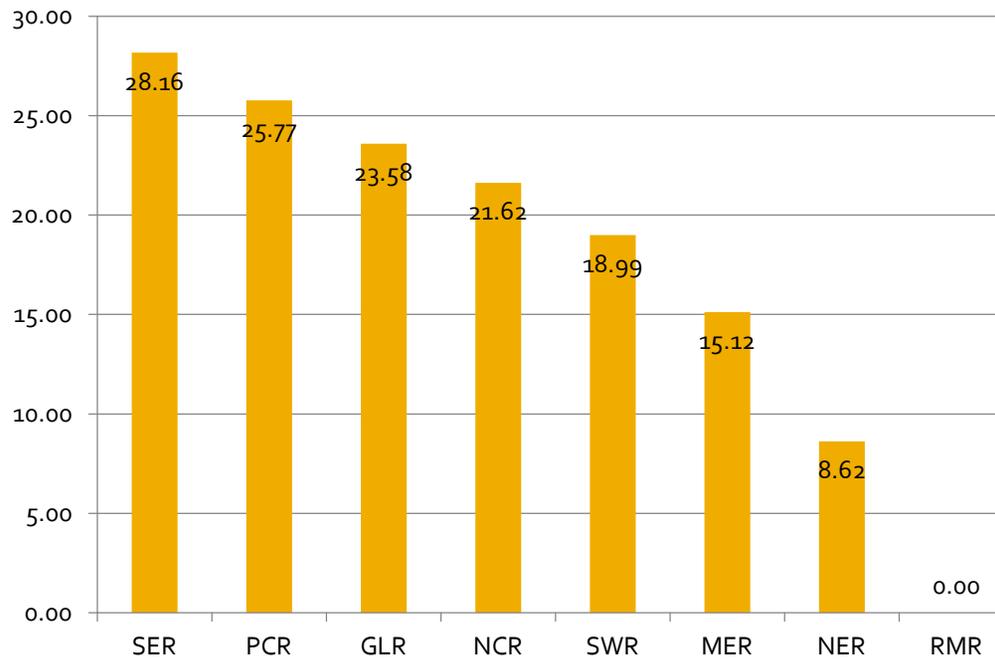


Hangar Rash

An aircraft disease that is incurable by ointment or pills, involves human inattentiveness, CAP aircraft at high risk

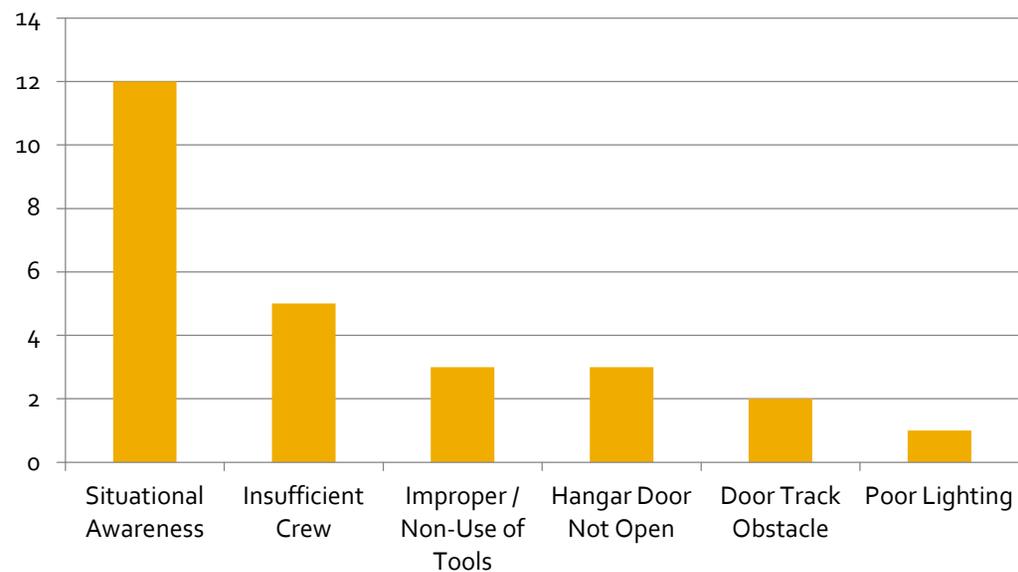
Hangar Rash – Analysis (Who?)

Hangar rash rates per 100,000 flying hours – FY11



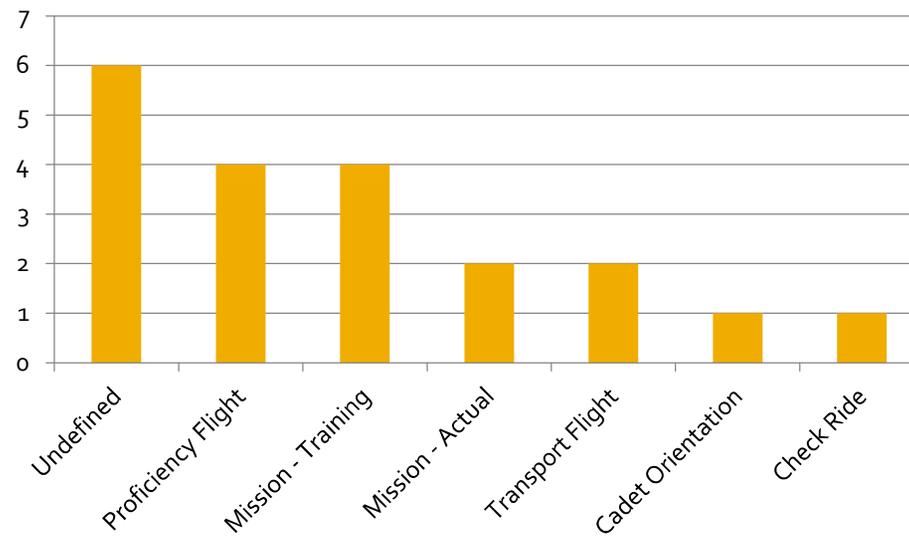
Hangar Rash – Analysis (What? Why?)

Causal Links to Mishap Occurrences



Hangar Rash – Analysis (When?)

Mission Profile at Occurrence



Hangar Rash – Again Really?

Hangar Rash

A review of the CAP mishap reports that have come in on our new on-line reporting system show that CAP is having way too many mishaps involving “hangar rash.” For the uninitiated, hangar rash results when an aircraft unintentionally comes in contact with the wall, door, ceiling or other immovable part of a hangar, and is the most senseless way for our airplanes to be damaged. If we take the time to move an airplane in or out of a hangar correctly, we should not be hitting anything in the process. Here are some suggestions to prevent damaging a plane moving in or out of a hangar:

Make sure the pathway in and out of the hangar is clear of obstacles.

Don't clutter the hangar with “stuff.”

Use spotters to watch wings and tail section during movement.

Avoid sudden movements that may

turn or twist airplane into obstacles.

If moving over door rails, place wood planks between or in front of the rails for smoother flow.

Make sure there is enough light in and outside of the hangar. Use car headlights if necessary.

Place blocks of wood behind the wheels as back stops; if possible bolt into the hangar floor as a never exceed point.

Have a yellow strips painted on the ground for nose wheel and main wheel reference into or out of the hangar.

Do you have any other suggestions? Send them to me for discussion in a future issue of the *Sentinel*. Hangar rash is unacceptable and one of the most preventable ways of breaking an airplane. A damaged plane is unable to perform its CAP mission.

Maj Larry Mattiello, CAP

Recommendations

- Establish mandatory aircraft parking guidelines
 - Should include:
 - Door markings
 - Floor markings
 - Aircraft type - hangar capability markings
 - Aircraft circle of safety criteria
 - Storage of article standards
 - Outdoor parking standards
 - Should all parking locations meet national standard for aircraft parking?
 - Should alternative parking guidelines be reviewed and approved by Region Safety with an approved letter of alternate procedure on file with NHQ Safety when the National Standard cannot be met? These could be maintained online.
- Implement “Sterile Hangar Program”
- Establish minimum crew ground handling guidelines
 - Consider restricting aircraft movement of aircraft to >1 person
 - Involve aircraft maintenance officer, consider cadet crew chief program

Recommendations

- Protect Civil Air Patrol aircraft
 - Require safety tubes and placards be added to all aircraft in hangars
 - Consider padding door jams and structural support columns in hangars
 - Low cost, high visibility, protects the surface of aircraft and reduces exposure to member injuries
- Consider alternate training protocol option for aircrew proficiency and mission training
 - Flight operations officer can create missions and coordinate crews for proficiency and encourage crew involvement
 - Training missions would be scheduled by Flight Operations, not by crew personal schedules
 - Creates sense of “real” mission
 - Every flight would have specific objectives
 - Flights without a well-defined training plan have the highest risk exposure

Recommendations

- Consider FBO parking where available. Transference of responsibility to an FBO by utilizing parking and hangar services allows CAP crews to focus on missions and training profiles while trained and experienced professionals move CAP aircraft into a ready-state.
- Implement a ground crew training program similar to Part 135 or Part 121 Operations. Program would include, but is not limited to:
 - Aircraft ground handling video
 - Marshalling
 - Towbar connection
 - Hands on aircraft movement
 - Protective cover installation and removal
 - Tie downs
 - Parking selection
 - Hangar door operations
 - Aircraft security

Conference Call Intervention

- The National Commander wants to implement hangar rash conference calls. It is recommended these calls occur within 48-72 hours of mishap notification filing.
- Mandatory Participation:
 - CAP CC / DO / SE
 - Region CC / SE
 - Wing CC / SE
 - NHQ DO / SE
 - Member(s) in mishap
- The call is to be a positive opportunity for the National CC to address the importance of doing things correctly and handling CAP assets with the best care and respect. All parties will be able to make recommendations to identify the contributing factors (links in the mishap chain), make corrective action recommendations, starting with the members involved.
- Membership will most often solve their own problems and can provide corrective action based on their new experience to be able to prevent reoccurrence. Bottom up action with top down support will change behaviors in CAP.
- Conference call bridge numbers will be predetermined for all to dial-in on at a time specified by CAPs senior leaders. CAP or NHQ SE will take roll & brief the mishap. CAP CC will moderate the review process and chair the meeting. CAP or NHQ SE will document results in mishap management database.
- Safety is a commanders program. This emphasis will send a message of importance to all CAP members. While this may be designed and expected for hangar rash mishaps, it may be feasible to expand this into a review of other mishaps to support a consistent message across the nation for all of CAP's senior leaders. Consistency will breed success.

**If we can't get a C182 to fit, how's
THIS going fit into a hangar?**



Hangar Rash

- Questions?