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**Line Up and WAIT!** A reminder provided by the FAA eff. Sept 30, 2010

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As most rated aviators have heard, the term "Position and Hold" is soon to be of the past. Here is an FAA Notice that was just released and is being provided to all members of CAP to ensure all crew functions are brought up to date on this topic. Compliments of the FAA:

**"Position and Hold" Soon To Be History!**

Notice Number: NOTC2485

**"Line Up and Wait" in Preparation for Takeoff**

You do it at the movie theater, the supermarket, as well as your favorite coffee shop on the way to work: You line up and wait. And, after September 30, 2010, you may also be asked to do it at your local towered airport.

Designed to help simplify and standardize air traffic control (ATC) phraseology, as well as to comply with International Civil Aviation Organization (ICAO) standards, U.S. controllers will use the term "line up and wait" in place of "position and hold" when instructing a pilot to taxi onto a departure runway and wait for takeoff clearance. Both current and future versions of the phrase are used when takeoff clearance cannot immediately be issued, either because of traffic or other reasons.

Why "line up and wait?" The phrase has actually been in use by a majority of ICAO contracting states for many years. It has proven useful with many non-native English speakers who can sometimes confuse "position and hold" with similar-sounding phrases like "position and roll," "position at hold," or "hold position." Misinterpretation of this instruction can have serious consequences. Using "line up and wait" helps avoid ambiguity and keeps the global aviation community accountable to the same standard.

Here's an example of the phrase in use: Tower: "Cessna 1234, Runway Three Four Left, line up and wait."

Pilot: "XYZ Tower, Cessna 1234, Runway Three Four Left, line up and wait."

At press time, this change was expected to take effect September 30, 2010. The specific date and additional details will be communicated via updates to the *Aeronautical Information Manual (AIM)* and *Pilot/Controller Glossary*, both located under the Air Traffic section of [www.faa.gov](http://www.faa.gov).

Other changes have also made their way into standard ATC lexicon. Effective June 30, 2010, air traffic controllers no longer use the term "taxi to" when authorizing an aircraft to taxi to an assigned takeoff runway. Now, controllers must issue explicit clearances to pilots crossing any runway (active/inactive or closed) along the taxi route. In addition, pilots crossing multiple runways must be past the first runway they are cleared to cross before controllers can issue the next runway-crossing clearance.

As you may recall, previous "taxi to" clearances authorized pilots to cross any runway along the assigned route.

One exception to the new rule is at airports where taxi routes between runway centerlines are fewer than 1,000 feet apart. In this case, multiple runway crossings may be issued if approved by the FAA Terminal Services Director of Operations.

The elimination of the "taxi to" phrase will apply only to departing aircraft. Arriving aircraft will still hear the phrase "taxi to" when instructed to taxi to the gate or ramp. However, controllers in these situations still will be required to issue specific crossing instructions for each runway encountered on the taxi route.

Remember, if you're unsure of any ATC instruction or clearance you've heard, contact ATC immediately. It's always better to check and be certain. And, remember to "line up and wait."

#### **For More Information:**

##### **Pilot/Controller Glossary**

[http://www.faa.gov/air\\_traffic/publications/atpubs/PCG/pcg.pdf](http://www.faa.gov/air_traffic/publications/atpubs/PCG/pcg.pdf)

##### **Aeronautical Information Manual (AIM)**

[http://www.faa.gov/air\\_traffic/publications/ATPubs/AIM/AIMbasic2-11-10.pdf](http://www.faa.gov/air_traffic/publications/ATPubs/AIM/AIMbasic2-11-10.pdf)

Aeronautical Information Publication (AIP)

[http://www.faa.gov/air\\_traffic/publications/atpubs/AIP/aip.pdf](http://www.faa.gov/air_traffic/publications/atpubs/AIP/aip.pdf)

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## **Back to School? Wearing a Back-pack?** By Lt Col Dennis Pearson, NCR/HSO, RN

Lastsummer at NESAs, the Medical Unit saw many cases of muscle strain to the neck, shoulders, back, and hips from improper carrying of packs, and carrying too much weight in the packs for long periods of time; most t cases involved carrying 24-hour gear. A couple of cases involved briefly carrying 24-hour and 72-hour gear to the field.

Many attendees also complained of numbness, weakness, and tingling in the arms and hands. This was caused by carrying more weight than they should have

been, and shoulder straps were narrow and not properly padded; narrow pack straps can reduce blood and lymph circulation, and compress nerves.

The most common cause seen was noted due to packs being carried only over one shoulder. Carrying a pack this way causes the spine to lean to the opposite side, stressing the middle of the back, ribs, lower back, and pull on neck muscles causing headaches and neck pain.

Pack weight is a major factor regarding comfort and injury. Other factors include: a person's size, conditioning, and design of the backpack. Weight of a backpack should not exceed the following limits:

1. For school, you should not carry more than 10-15% of your body weight.
2. For optimal comfort, and yet be able to carry required items for the field, only 25% of body weight should be carried.
3. Beginner hikers/rescuers should only carry 20% of their body weight.
4. Day packs without a frame should not exceed 20 pounds.
5. You can carry comfortably 30-35% of your body weight using a properly loaded frame pack.
6. Never carry more than 35% of your weight. Properly trained, equipped, and highly conditioned personnel can exceed these guidelines as required.

Use a pack with wide, padded shoulder straps, and a wide padded waist belt. Wear it with the shoulder straps over *both* shoulders. Adjust shoulder straps so the backpack is high on the back. The pack should not hang more than four inches below the waist line, pulling you down and backwards. The waist strap should be located at the top of the hip. You could consider buying a rolling back pack for school so you do not have to carry it as much.

Balance the load correctly. Arrange the pack so the center of gravity is high and close to your back. Pack items so they will not shift when carried. Use correct walking posture, and do not *lean* forward.

When you examine the *minimum* list of items for 24-hour gear, and 72-hour gear, consider how you can lighten those items further. Carry only those items that are needed. Hiking/climbing specialists can provide help in this area.

### **Packing an ALICE (All-Purpose Lightweight Individual Carrying Equipment) Pack**

The medium pack is preferred, since the large pack throws a person off balance easily. The large pack, with a normal capacity of 85-100 pounds, is not suitable for wear over rough terrain or steep slopes. In this case, use a mountain rucksack. The ALICE frame is designed for a person 70 inches tall; for a person shorter than 65 inches, the frame will be too big.

Begin loading gear by experimenting with item placement. Consider distance and elevation that the gear will be carried, until a well-proportioned packing structure is achieved. Place heavy and bulky items such as extra boots or mess kits on top of softer items such as clothes; surround them with items like socks. Ensure packing is tight. Use all space available. Tighten all gear straps and close all pockets to capacity. Loose straps can cause tears and poor weight distribution. This can make for a very uncomfortable experience.

Wear the ALICE pack as you would any other backpack. Tighten wide shoulder straps by leaning forward and cinching them as you rise back into standing posture. Lastly, wear a sternum/chest strap. This strap prevents the shoulders from being pulled back. This is the proper way to gain perfect tightness and comfortable weight distribution. Tighten the pack as you walk. Consider placing extra padding under the shoulder and waist straps for loads greater than 70 pounds.

Do not allow the pack to extend far from your back because it is completely filled as this puts your body off balance, and you could fall backwards. Observe any discomfort or pulling sensation on the back. Readjust the pack as needed.

### **LBE (Load Bearing Equipment AKA Fighting Land Gear or Web Gear)**

The pistol belt should ride high on your hips, and not hang low. Field pack suspenders are attached to front of the belt, and to the butt pack. Adjust straps to lift up the butt pack. The butt pack is made to carry only about 13 pounds of gear. Attach first aid/compass pouches to the suspender straps. Attach canteen covers on each side of your belt. Place cargo storage pouches in front of the canteen covers for ease of access.

### **Internal Pack Frames**

Since the pack lies against the torso, during hot weather there is increased sweating, and increased chance to develop a heat rash. To stay drier, consider using an external frame pack.

Please follow the above guidelines for a more pleasant experience while carrying your 24-hour and 72-hour gear.

## **The Way We ALWAYS Do It!**

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Being a part of the safety organization is never boring because the way 60,000 members find ways to deviate from safety. The content provides laughter, drama, concern, sorrow, anger, and a learning lesson. What is the common root cause behind all our "stuff?" The common reason behind the continuing safety mishap rates is the answer, "This is the way we have ALWAYS done it."

With improved reporting and electronic analysis, the trends are easily identifiable. We see the trends around mishaps and share those in newsletters, safety alerts, and educational conference calls, and we still do it.

Safety education and awareness are intended to create change. The safety department raises the risks to a new level and it is the responsibility of our members to take "action."

Action means "to do something"; "to put something in motion"; "to make a difference"; and to not lose sight of other task options to get to an end result.

Remember: be willing to look at your options and be accountable. Learn from each other; be educational; make a difference; and change behavior to be safe, not to just go with the flow.

## **An Alaska Commander Brings it Home for Us all!**

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The following note is an e-mail that was sent out to the members of the Birchwood Composite Squadron in Birchwood, Alaska, just outside of Anchorage. Captain Wes Erb elegantly writes,

*"Hello all,*

*As the daily drizzle continues, this summer will be remembered as the worst on record for lousy weather conditions. Tragically, it will certainly be recalled as one of the worst for aviation as well. With the addition of the news of yet another loss, legendary flyer John Graybill and wife Dolly from our Chugiak community, the enormity of the heartache these accidents have brought to the families of these military, commercial, and private pilots alike seems to unfold daily. While the investigations of these accidents will take months, it would not be unexpected to find that weather played a causal factor in a large majority of them.*

*Far better safety analysts than I have tried for years to make flying safer, employing every tool that can be thought of... mandatory safety briefs, risk management calculations, strict weather requirements, third-party dispatching (FROs), etc... all been employed to staunch the harsh accident rate in Alaska with varying success. It's a hard metric to pin down because when you fly safe, absolutely nothing happens except you arrive alive. But yet we still seem to have these constant reminders that weather in Alaska in particular is a cruel harvester of people, and ironically it seems to strike the seasoned, grizzled veterans far more so than the fledgling neophytes. The tired NTSB cliché of "Continued VFR Flight into inadvertent IMC conditions" rings hollow after hearing it so often in accident reports. This sad twist adds more suffering simply because it is largely preventable.*

*I wish I knew the right thing to say or the correct action to take to guarantee we will not ever have to deal with the loss of one of our own. Maybe Ernie Gann is right, that fate is the hunter and aviation has inherent risks regardless of the preparation put into it. What I do know is that in the end, the whole process mostly boils down to the pilot in command making the right call whether to continue, stop, or change a route of flight. Of the three, stopping or turning around is the most difficult. There is an old joke that you can teach a monkey to fly with enough gasoline and bananas; it is more accurate than you might expect. The true grit of real aviator is the steely ability to not fly or return to base and fight another*

*day far more so than press on into the teeth of the dragon.*

*I write this primarily to remind our Mission Pilots and Mission Observers alike of the awesome responsibility they shoulder each time they go out on a CAP mission. Regardless of the mission objective, the first and foremost responsibility of our crews is to each other, and to uphold the vow each pilot makes to his crew to return them safely no matter what. But, this doesn't only apply when you put on your CAP flight suit, even when you fly alone, your seats are filled with the hopes and dreams of your friends and family. A loss of one is as devastating to those left behind as if they were there, too. Years back, I started to imagine my daughter flying with me when I was alone and asking myself if I would do anything different if she were smiling back at me from the copilot seat. Do whatever it takes to remind yourself that life is precious and should be jealously guarded against the sometimes fickle hand of Fate.*

*"Fly Safe" isn't just a tagline, it needs to become a mantra for whenever you are lucky enough to fly. We can't change the world, but we can try to help ourselves in our own little community. Make a solemn promise to yourselves and your family to honor your personal minimums 100% of the time, always have a Plan B, and continue to preach the word to your fellow aviators. Let's redouble our efforts to ensure we never have to deal with this pain in our own little family. Thanks for your time and patience."*

## **Mishaps**

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The following are based upon true stories. Resemblance of these events that may have occurred in a CAP unit near you are coincidental.

### VEHICLE

- Van battery was dead and was being jump started when it unexpectedly started to rain. In order to avoid a shock hazard, the van was quickly pushed underneath an overhang. In the hurried effort, the driver's side door was left open and impacted the overhang's support column damaging the hinges on the door.

Lesson Learned: Haste makes waste. The driver's side door should have been closed. Compounding the error was the mistaken idea that a 12-volt system could provide a dangerous shock.

- While operating a CAP vehicle, tire tread separated from the tire. The resulting damage was to the rim and under-carriage of the vehicle. The vehicle spare was used and the vehicle continued to its final destination.

Lesson learned: A thorough vehicle inspection should have been done before departure. Mechanical failures still occur despite inspections, but something may have been seen and inspections prior to any movement can detect possible problems. The cost of tire replacements for all four tires was \$800.00. The cost of vehicle damage was \$2,500. The cost equaled the amount of money for 30 GPS handheld units for cadet programs.

#### AIRCRAFT

- Total aircraft hull loss remains under investigation. Attached is the updated national statistics slide for your review that includes total damage cost for Fiscal Year 2010, to date.

#### BODILY INJURY

- Cadet was participating in an evening cadet activity when she injured her ankle walking through a wooded area. Cadet stated she stepped on a tree root and rolled her ankle off the side. Medical review determined injury to be a sprain.

Lesson Learned: Leadership should not allow activities in unknown areas where risk potential is higher. Activities performed by CAP members should be limited to activities outlined in CAP regulations, manuals, and pamphlets. If a night activity is to occur, a safety walk should be done of the area during daylight hours to view risks and help determine if activity areas are appropriate.

- Cadet performing monthly Cadet Physical Fitness Test (CPFT) was removed from the activity after demonstrated physical difficulty. Cadet was transported to the hospital and it was determined that the cadet had suffered from heat exhaustion. Contributing factors included the cadet's own schedule of eating and lack of hydration that had not occurred before arriving for the unit meeting.

Lesson Learned: Safety has an ownership principle that only you can positively control. It is everyone's responsibility to eat a balanced diet and to ensure proper fluid intakes. Other contributing factors that could have mitigated this exposure were proper use of heat/humidity charts and recognition of appropriate work:rest ratios. Proper supervision of cadets to ensure hydration occurs before strenuous activities and also should be included as a part of CPFT checklists when administered.

## Hear Our Thoughts, Hear Our Experiences By Members of the Civil Air Patrol Nationwide

Here are some of the words of wisdom often overlooked in our daily lives. Complacency can slide into our world in simple ways that we miss in the hustle and bustle of daily life. Thank you for your submissions. If you have a practice or safety awareness topic to share, the instructions are in the January 2010 "Sentinel" for your reference. Keep in mind these are ideas, not CAP policy.

|                        |        |             |   |
|------------------------|--------|-------------|---|
| Barbara M McGillem     | IN-123 | August 2010 | Be sure when taking medication to read all the information on the bottle so as not to make a mistake in how the material is taken. For example, some medication must be taken at a given time before eating, and some medication must be taken with food or milk.   |
| Robert L McGillem      | IN-123 | August 2010 | Always read the instructions that are on the fire extinguisher before operating an unfamiliar vehicle. To use the extinguisher, remember the acronym P A S S. P-ull the pin. A-im at the base of the fire. S-queeze the lever slowly. S-weep from side to side.   |
| David R Simonson       | NM-077 | August 2010 | Just because something is not in the regulation, does not mean its not important to do. Place the pitot covers on the pitot tube, chock the tires, fuel the airplane, ground the chassis when fueling or hangared, clean the windscreen, fill out the logbook, and return the keys. Just taking the little steps to keep the aircraft clean and ready for use. The simple things make the plane last longer and increases enjoyment of aviation. Do not make someone create a regulation to compel you to do what is right when it comes to taking care of the tools that we use. All the little things add up. |
| Michael Malone         | FL-243 | August 2010 | In summer heat, always bring water to an event and on PT nights!  |
| Joseph R Schreckengost | PA-125 | August 2010 | In hot months, it is important to mind the heat. Remember to take plenty of water on missions and hikes, take sufficient breaks, and avoid heat-related injuries.   |
| Richard N Kear Sr      | WA-039 | August 2010 | Proper and appropriate "closed toe" footwear is important for all personnel when participating in CAP activities. This also includes PT and after hours free time activities.   |

## A picture is worth a 1000 words!

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On the phone, “Hi honey, I’ll be home as soon as I ‘park’ the plane.”

## Congratulations!

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This year, WA Wing reports they removed 6 tasks from the 21 obstacle U.S. Army Confidence course on Ft. Lewis, WA during their cadet encampment. Cadets were given choices that allowed for recognition of personal limitations; they used spotters, and after 9 days in total reported no mishaps and no safety deviations. There were 71 basic cadets and 25 cadet staff members that successfully assaulted the course and ended up with nothing but teamwork and confidence. Nicely done!

## Until Next Month

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Discover, report, stop, share, listen, and learn. The things we have read about in this issue already have happened, so you are not allowed to experience these for yourself. Remember to “Knock It Off” and slow down. For streaming dialogues on some subjects, remember CAP Safety is on Facebook and Twitter. Have a good month.





# Safety of our Members

As of: 19 Aug 2010

## National Statistics

|  | <u>FY08</u> | <u>FY09</u> | <u>FY10</u> |
|--|-------------|-------------|-------------|
| ■ A/C Accidents <sup>1</sup>             | 2.84        | 3.57        | 2.34 ↓      |
| ■ A/C Incidents                          | 79.55       | 82.13       | 51.43 ↓     |
| ■ A/C Repair Costs <sup>3</sup>          | \$685k      | \$785k      | \$261k      |
| ■ Vehicle Accident Rate <sup>2</sup>     | 0           | .18         | 0 ★         |
| ■ Vehicle Incidents                      | 3.96        | 3.79        | 4.03 ↗      |
| ■ Bodily Inj. Accident Rate <sup>2</sup> | 3.59        | 1.8         | .60 ↓       |
| ■ Bodily Injury Incidents                | 6.79        | 9.2         | 14.5 ↗      |
| ■ Fatalities                             | 2           | 1           | 0 ★         |



<sup>1</sup> National Aircraft Accident and Incident rates per/100,000 flying hours    <sup>2</sup> Rates calculated per/10,000 members

<sup>3</sup> Includes \$80K initial estimate for aircraft repair that may result in total hull loss .