

Forest Service



SAFECOM Summary August 2007

The Aviation Safety Communiqué (SAFECOM) database fulfills the Aviation Mishap Information System (AMIS) requirements for aviation mishap reporting for the Department of Interior agencies and the US Forest Service. But most important, SAFECOM's are a tool used to identify, document, track and correct safety related issues and share lessons learned. Categories of reports include airspace, accident, incidents, hazards, maintenance, management and mishap prevention. The system uses the SAFECOM Form to report any condition, observation, act, maintenance problem, or circumstance with personnel or the aircraft that has the potential to cause an aviation-related mishap and events/ideas that contribute to mishap prevention. The SAFECOM system is **not** intended for initiating punitive actions. Submitting a SAFECOM is **not** a substitute for "on-the-spot" correction(s) to a safety concern. Corrective actions need to be dealt with immediately following an event and need to be included in pre and post mission briefings.

The intent of this summary is to share the trends and lessons. We hope that this document will be used in daily briefings, taking one to a few of the lessons learned from the SAFECOM's and discussing them amongst bases and crews. We've added a "What If" page with the intent that it will also be utilized in briefings and generate interactive thought processes amongst bases and crew as well.

We welcome and would appreciate any feedback and ideas to make this a useful learning tool for our aviation users. Please send feedback to Barb Hall at bhall@fs.fed.us or 208-387-5285. THANKS

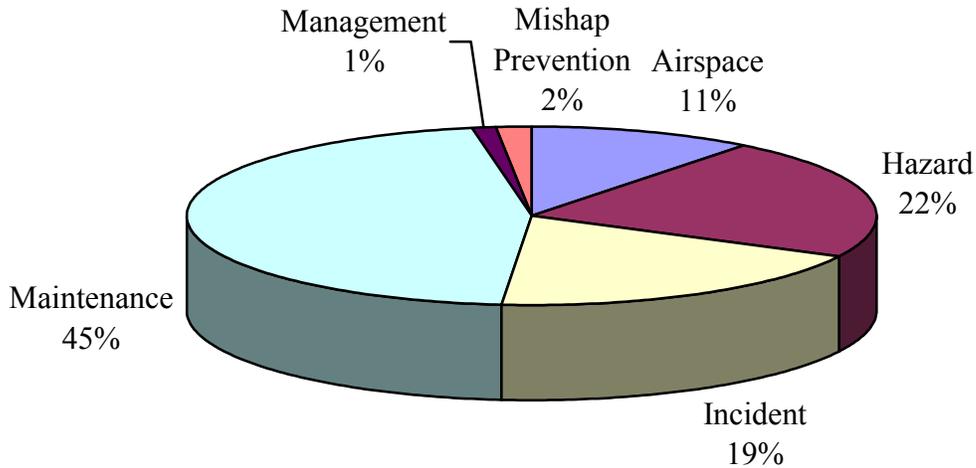


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In August there were 181 SAFECOM's reported, which is below the 10-year average of 202 for the month of August. The following charts show the category and aircraft type in which they occurred for last month and the 10-year average.

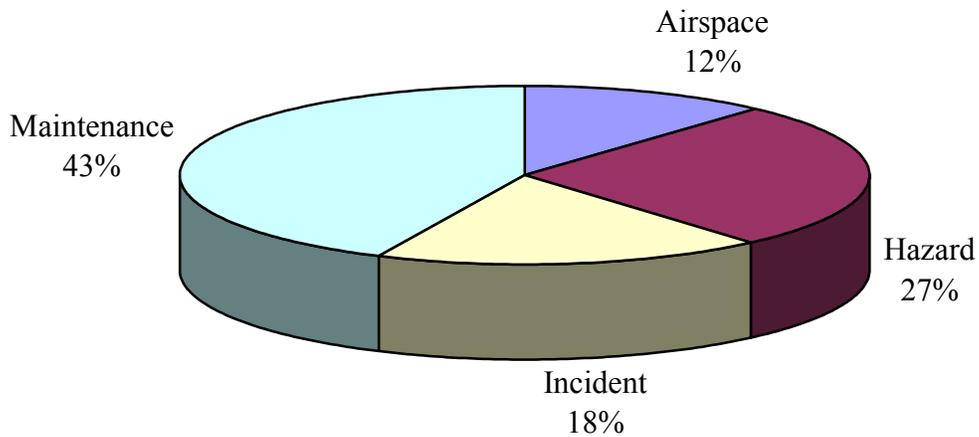
SAFECOM's by Category

August 2007



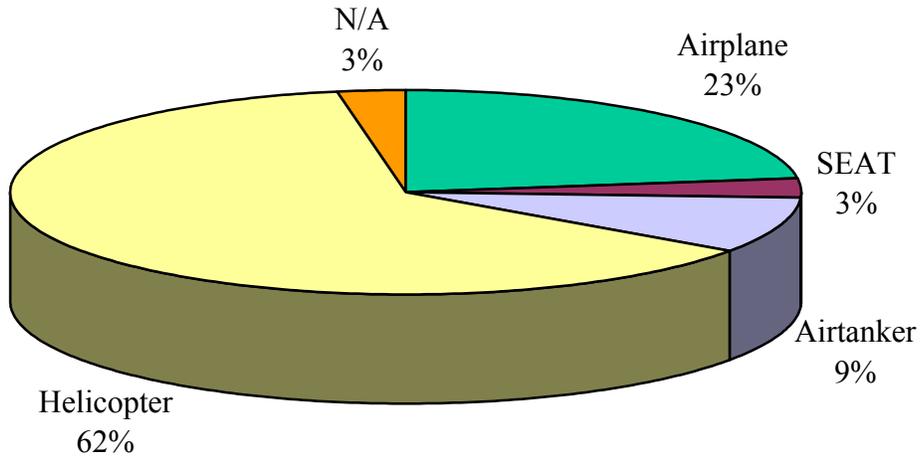
August 10-Year Average

Accident, Management and Mishap Prevention are categories that were added a few years ago and we do not have ten years of data at this time.

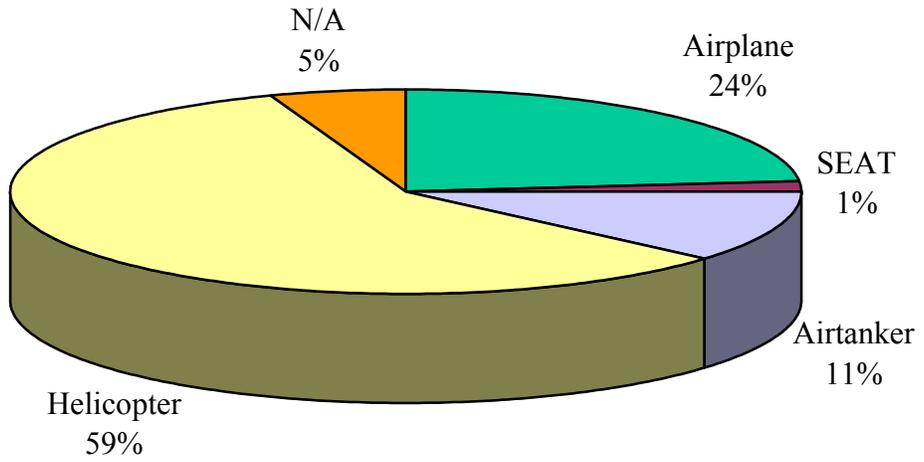


SAFECOM's by Aircraft Type

August 2007



August 10-Year Average



Airspace SAFECOM's

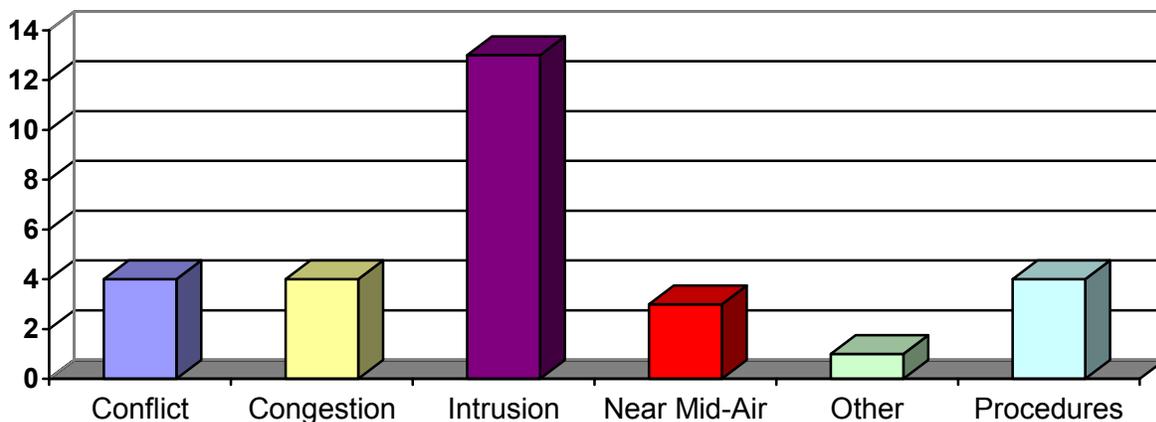
There were 26 Airspace SAFECOMS reported in August, which is near the 10-year average of 24. Half of the Airspace SAFECOM's were Intrusion, which is actually lower than the 10-year average of 59%. In past years one of our worst intruders was our own aircraft. The Airspace Coordinators working in the regions are making a difference by the outreach programs to Helibases, Airtanker Bases, Fixed Base Operators and the FAA.

A couple of airspace issues that came up this year were: Flight Service Stations not briefing pilots on NOTAMS and a couple of web sites not accurately plotting the graphical TFR's.

The FAA is working with Lockheed Martin on resolving the issue of not briefing pilots on NOTAMS. Many complaints were filed to the FAA regarding this and a complaint site was initiated for reporting the problems.

The FAA/Military DINS website is the official site to plot graphical TFR's and is located at: <https://www.notams.faa.gov/>

There were 3 Near Mid-Air, which is slightly above the 10-year average of 2.6.



Hazard SAFECOM's

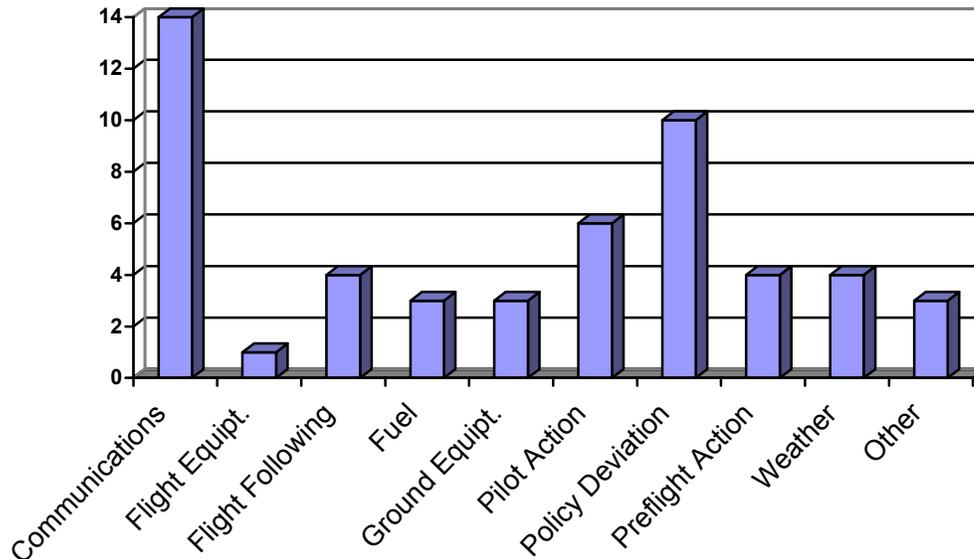
Fifty-Four of the SAFECOMS for August were categorized as Hazards. Fourteen of them were Communications; the ten-year average is 13. These ranged from frequency congestion and management, radios and repeaters to written communication.

Unfortunately, this is nothing new; communications have always been the highest sub-category under Hazard. What we have here is a failure to communicate! Some of the communication issues were: landing unannounced, no communication with helicopter, no communication between SEAT and SEAT manager, aircraft carding, ATGS clearing aircraft through TFR, constant frequency changes, frequency congestion, unreadable radio transmissions issues with flight following.

There were 10 Policy Deviations, which is below the 10-year average of 13; however one is too many. Some of the policy deviations reported were: Air-Attack entering FTA below 500 feet without communicating to aircraft on the incident, long-line on external load without swivel, pilot and aircraft being used that were not carded, pilot not carded for mission, duty days exceeded, aircraft not flight following and helibases not having qualified helibase managers.

There were a few instances where great decisions were made to discontinue the mission due to smoky and inclement weather conditions. SAFECOM 07-0773 attached.

Just as a reminder, make sure to do a high altitude recon to identify hazards in the area before descending to begin your mission. SAFECOM's 07-0971 & 07-0944 attached.



Incident SAFECOM's

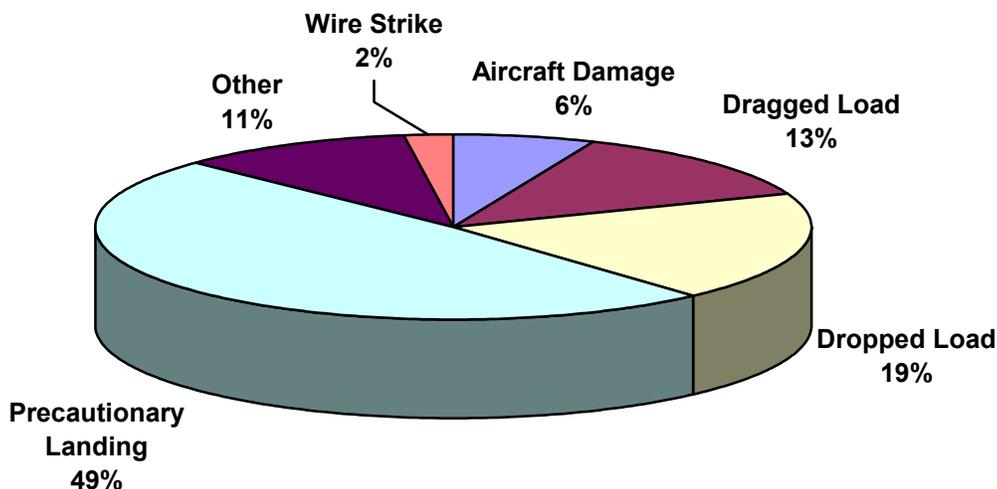
There were 47 Incident SAFECOMS reported in August. There were 9 dropped loads reported, the 10-year average is 10.7. Of the nine dropped loads; three were mechanical, three human factor and three undetermined.

Precautionary landings accounted for almost half of the SAFECOM's in this category, of the 23 reported, 21 were due to mechanical problems. While the number is high, well above the 10-year average of 16.9, it is much better to see that the pilots are making good cautious decisions.

The "Other" SAFECOM's included a long line destroyed from not having a swivel, incorrect graphical TFR maps, and a SEAT overfilled with retardant.

There was an incident where a bucket cable was broke while dipping out of a dip tank. All dip tanks need to be thoroughly inspected for anything that may cause the bucket and /or cables to snag. SAFECOM 07- 0768 attached. **See attached Safety Alert IA 07-02.**

Another incident worth noting was an external cargo load that was manifested at 550 pounds; however, the load cell on the helicopter registered the weight at a little over 900 lbs. Even though this did not result in an accident, this is a good reminder that all cargo needs to be accurately weighed. SAFECOM 07-0900 attached.



Interagency Aviation Safety Alert

No. IA 07-02

May 18, 2007

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Subject: Retardant Dip Tanks

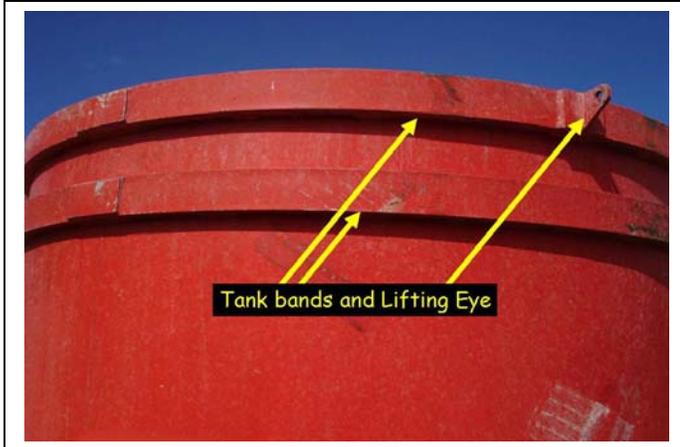
Area of Concern: Fire Suppression Operations

Distribution: Helicopter Flight Crews, Helicopter Managers, Dip Site Managers, Type 1 and 2 ICTs, and Unit Aviation Officers

Discussion: Recent investigations and a review of the SAFECOM database have found that three “systems” have contributed to incidents and accidents with retardant dip tanks; the flight crew, the tank, and the snorkel/bucket. Each system presents a unique hazard to dip tank operations.

In May 2007 a Bell 206L-4 had the bucket snag on the lip of a tank, requiring the dip site manager to pry it off with a shovel. The bucket snagged on a clamp that was holding PVC around the top of the tank.

In October 2006 a Type-1 helitanker was severely damaged while attempting to hover-dip from a 5000-gallon portable retardant tank (PRT) when the snorkel inadvertently became lodged on the lip (ring) that surrounds the tank’s frame.



Portable Retardant Tanks. The frame of portable retardant tanks (PRT) may have lift rings, tank bands (aka collars), or other structural components that can “catch” snorkels and water buckets. All PRTs should be inspected, and any structural hazards mitigated, prior to use.

Snorkels. There are several FAA approved designs for “pond snorkels” that are currently in service. The USFS and DOI are working with the helicopter operators to make them aware of potential design hazards with their snorkels.

Flight Crews. Flight crews must understand, and be vigilant of, the potential hazards when snorkeling or dipping from PRTs. Modifying PRTs reduces, but does not eliminate, the risk of snagging something. Whenever possible, *before operations begin*, flight and ground crews should review what to do if a snorkel or bucket becomes snagged. This may involve landing the helicopter, **releasing the bucket, or calling for ground assistance.**



RECOMMENDATIONS:

- 1) Inform all helicopter flight crews and Incident Command Teams of the snagging hazard presented by certain dip tank frames.
- 2) Inspect all portable retardant tanks prior to use for protrusions and snagging hazards.
- 3) Ensure that there are NO rings or protrusions around the perimeter of the tank that a snorkel or bucket can “catch”. Remove the hazard or shield it from the snorkel/bucket assembly.
- 4) Review Helicopter Dip Tank Capabilities and Users Guide, available on line at: http://fsweb.mtdc.wo.fs.fed.us/php/library_card.php?p_num=0657%201306P
- 5) **If hazardous tank assemblies are found**, require the vendor or the appropriate authority (if government owned) to provide appropriate modifications before use.
- 6) If the parts can't be removed or the hazard can't be otherwise mitigated by shielding/wrapping, **remove the tank from service**.
- 7) If contracted, **ensure that the contracting officer is informed** of tanks that are removed from service.



/s/ Robert Galloway

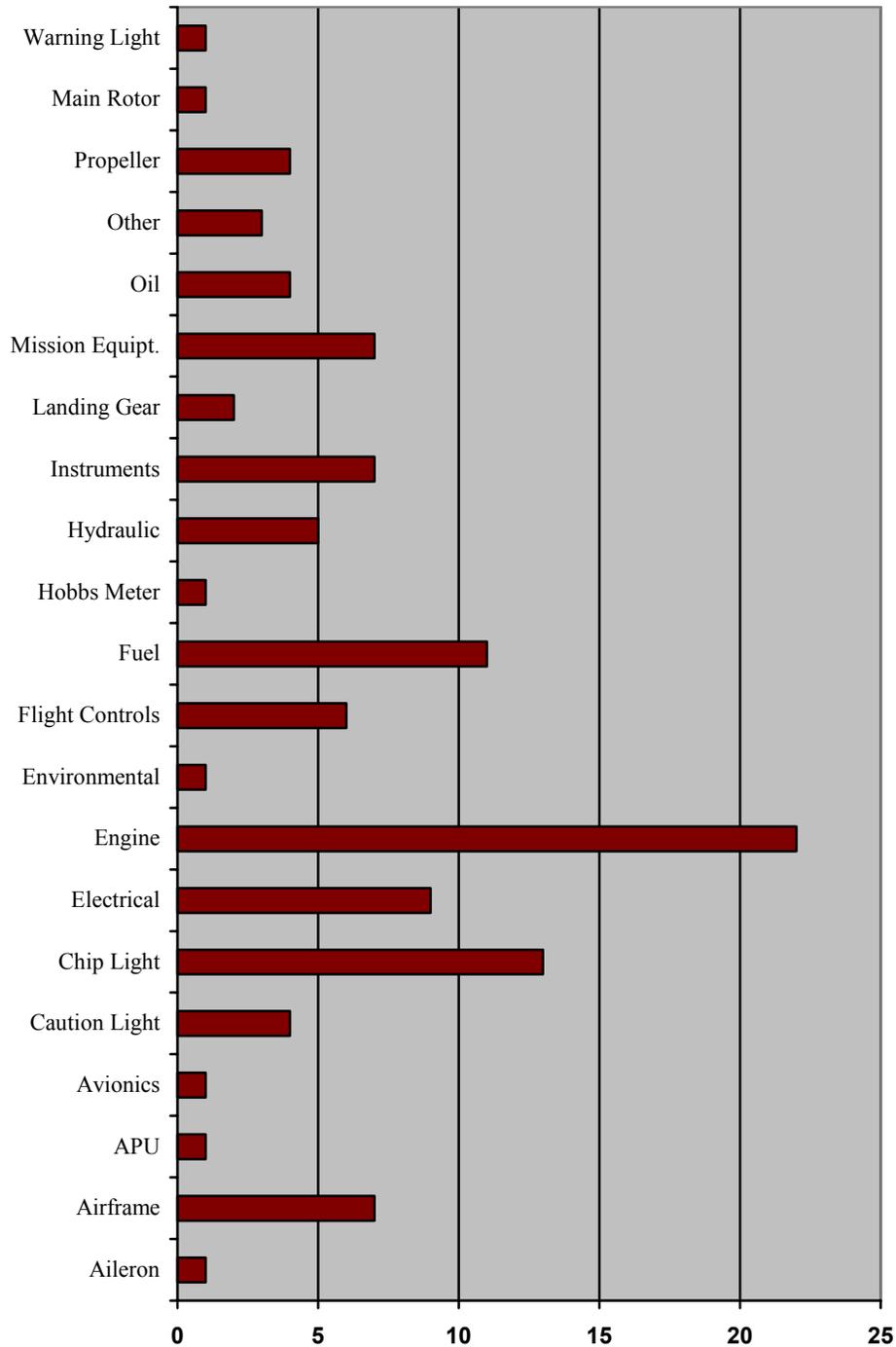
Robert Galloway
Aviation Safety Manager

/s/ Ron Hanks

Ron Hanks
National Aviation Safety
and Training Manager

Maintenance SAFECOM's

And the other 45% of the SAFECOMS were maintenance issues; the most reported were engine followed by chip lights, which is the norm. A mechanic is commended for detecting a 3-inch crack in the helicopter transmission mount during hot fueling while conducting cargo missions.



Management SAFECOM's

There were three Management SAFECOM's reported. 1) A CWN helicopter from Alaska showed up on a fire in Montana with an aircraft card that had Interagency Fire scratched out and Local Fire written on it. 2) Flight crew arrived at 2144 after completing mission and no hotel rooms were reserved nor available, they had to fly to another city arriving at 2345. 3) Air-Attack continued to order aircraft on fire after some pilots declined and a near miss occurred due to visibility.

Mishap Prevention SAFECOM's

There were four classified as Mishap Prevention. Thanks to the pilots and ground personnel for the excellent Judgment calls to ensure safety. 1) Pilot aborted mission due to the angle of the sun, visibility from drifting smoke and fuel on board in the event he had to go to an alternate airport. 2) Ground personnel notified pilot the aircraft was making an unusual noise, pilot then noted MGB oil was high, but no warning light had illuminated. 3) Pilot detected a broken bracket supporting the turbo charger for the left engine during the pre-flight inspection. 4) Pilots aborted mission as aircraft was harder than normal to control and AFCS felt sloppy.

Accident SAFECOM's

Fortunately, there were no Accidents in August.



We did have an Incident With Potential (IWP) with a Sikorsky S-70 that had a wire strike with a bucket in Montana.

WHAT IF?

These scenarios are provided to get crews engaged in thinking about different situations they could find themselves in and what the policy and procedures are. You can make up your own scenarios as well and get group interaction for discussion, ideas and to look up policy and procedures in manuals, handbooks and guides. Manuals, Handbooks and Guides web page: http://www.fs.fed.us/fire/aviation/av_library/index.html
We will provide the “What If” references for these in next month’s edition.

What if the helicopter that you are managing was requested to do bucket drops on Division Z and you notice that the pilot is not wearing their personal floatation device. What would you do? Where would you find the requirements?

What if you were dispatched to a fire and you hear that a helicopter and an airtanker were dispatched to the fire as well. Does aerial supervision need to be ordered and if so what type of supervision? Where would you find the policy and requirements?

Lessons Learned from SAFECOM's reported.

Please discuss in daily briefings, even if you review one or two a day.

SAFECOM 07-0796 Narrative: During Fire Detection mission storms developed and aircraft diverted to Bozeman airport. Pilot attempted to contact Bozeman tower but was unreadable. Pilot lost altitude and circled SE of the airport and after several attempts with different victor radios with no success and finally was able to make contact using a hand held mike. ATC reported he was not on radar but to go ahead and land on the runway. At this time the pilot was disoriented and I helped him get his orientation to the location of the airport. When taxiing to FBO the pilot was instructed to remain on the left side of the taxiway at which time he turned and went down the right side heading into opposing traffic. The other aircraft adjusted to the other side and avoided a collision. **Corrective Action:** Told Pilot my situation with his flying especially with his handling of the Bozeman airspace. Decided with acting FAO to release the aircraft and use local CWN resources.

SAFECOM 07-0753 NARRATIVE: Helicopter xxx was on a water dropping mission when the pilot said he misjudged the ground and dragged his bucket through the brush. At that time a Safety Officer on the fire witnessed this action and reported it up the chain of command. I have no further knowledge since I did not witness this event, however in order for this system to work effectively the witness should be the one to share his or her experience so that the narrative can be accurate. **Corrective Action:** Submitters Comments: I debriefed with the pilot and discovered there was no damage to the ship, the bucket, or anyone involved. We discussed the safety concerns involved with such an event and corrective measures were discussed and implemented. I feel the pilot's situational awareness was calibrated and finished up with this SAFECOM. RASM Comments: The follow-up action with the pilot is appropriate, and while I agree it would be better to have the "eye witness" reports of these incidents, I am glad that you took the initiative and followed-up with the pilot rather than waiting to see if someone came forward with information. Prevention of the next incident or reducing hazards is the primary function of the SAFECOM system.

SAFECOM 07-0949 Narrative: On Tuesday while working the Snow Fire on the San Bernardino National Forest T-xx came in to the San Bernardino Airtanker Base to get a load of retardant. On his roll T-xx asked me to go outside and look at his gear while he flew over the base and see if the right landing gear was still down. When he flew over we discovered the right landing gear was still down. I told T-xx that his gear was still down. I asked if he would like me to inform Aircraft Rescue, and he advised me that he was going to head to Chico and have his mechanics look at the situation. I advised South Ops, FICC and R-5 RASM of the situation. On the way to Chico T-xx jettisoned his load at the San Bernardino Jettison Area. At 1850 I called CIC and got word that T-xx landed without incident at CIC at 1842. I contacted R-5 RASM and made sure that he had gotten the news. **Corrective Action:** R-5 RASM: Good decision making by the flight crew and great communication and notification by the ATB crew and others. Aircraft landing gear was thoroughly inspected and gear cycled multiple times while on jacks and problem could not be duplicated. Gear assembly lubricated and approved to return to availability

by R-5 AMI. Although nothing was found, it was a good decision to get rid of the retardant and get to a location where repairs could take place if it had been necessary.

SAFECOM 07-0813 Narrative: N-XXX was slinging 3 - 72 gallon blivits using a 150 foot long line to the Buck fire. The load was set on the ground at the drop site approx 50x50. When the load was released the pilot said the hook reacted as though there was still tension on it. The hook swung away from the load at which time the pilot began to ascend faster than normal. The hook struck a tree but did not hang up or tangle. The I.C. indicated that it looked like the pilot was not comfortable with several angles of approach and seemed to hover for an extended amount of time. After the tree contact and while lifting up, the I.C. called NXXX and released him from the fire. The I.C. then contacted dispatch with a recommendation that N-XXX not be used for long line missions.

Corrective Action: NXXX was set down upon return to Coeur" d Alene. Operations were suspended until contact could be made with pilot inspectors and the company. Their recommendation was additional vertical reference training and a follow-up longline check ride. RASM Comments: USFS required the contractor to perform 5 hours of recurrent proficiency training. Upon completion of that training, the Regional Helicopter Inspector Pilot (HIP) discussed decision-making processes related to mountain flying and vertical reference missions. Contract pilot was given a flight evaluation for mountain flying and vertical reference (150 ft longline) and was found to be satisfactory.

SAFECOM 07-0774 Narrative: A planned mission to deliver cargo from helibase to fire, return to helibase, hot fuel, and deliver a second load of cargo to fire was interrupted during the hot fueling stage when the mechanic detected a three inch crack in the helicopter transmission mount. The helicopter was shut down, and determined to be out of service. **Corrective Action:** After the mechanic on site completed his inspection, he contacted another company mechanic, and requested that he come to the helibase and also inspected the aircraft. After both mechanics had inspected the helicopter, it was determined that the helicopter was flight worthy for a ferry flight to Pendleton, Oregon, so that it could be repaired in an environment without heavy helicopter traffic, and the associated rotor wash and dust. The Contractor estimated that the repair would require about four days of work. The helicopter manager contacted the Regional Aircraft Maintenance Inspector and advised him of the situation. The maintenance inspector requested that he be notified when the helicopter was ready to return to service. UAO Comments: Manager was following up with R-6 Maintenance Inspector with Maintenance Log. RAMI comments: (8/6/07) I was contacted 8/3/07 @ 13:00 that xxxx would be unavailable for four (4) days to repair a crack in the transmission mount. When the repair is complete I will be contacted. RAMI Comments: Work was completed, received paper work from mechanic stating all work was complied with, he returned the aircraft back to service, and I returned the ac back to availability at 8am on 8/9/07.

SAFECOM 07-0786 Narrative: Helitanker was dipping out of lake and pilot felt a slight jerk to the right. Pilot hit the emergency release button on the cyclic to open tank doors and release water. Pilot noticed the #1 engine torque was 90 and the #2 engine torque was at 30. Pilot applied the #2 emergency throttle to match the torques and then flew out of the dip site. He immediately notified air attack and helibase that they had an engine problem but felt they could safely fly back to helibase. As the helitanker was about to land at the helibase, pilot noticed the torques split again and the #2 emergency

throttle was not fully engaged. Pilot was able to land helitanker safely at helibase. Upon inspection of the #2 engine, mechanic noticed the fuel control was not functioning correctly and caused the #2 emergency throttle to come loose. Unavailability was assessed for the rest of the day. **Corrective Action:** Mechanic installed a new fuel control and fuel pump. A maintenance test flight was performed and power check results were in good operating range. Maintenance inspector gave permission to return to contract availability. RASM Remarks: Good airmanship by the pilot! No further action.

SAFECOM 07-0768 Narrative: This was an incident with potential. 08-01-2007 Bucket work on the lightning fire was performed by XXX. Retardant was used. Pilot returned from fire and shutdown for mandatory break. When asked how things were going with missions, pilot informed me that something inside of rinse tank "snagged" a bucket support cable and broke it. We informed Helibase immediately of the problem and the mechanics proceeded to fix the broken cable. Cable was fixed quickly and no loss of availability was incurred. Day was close to ending, no more missions for the day. We were informed at evening de-briefing that nothing was out of the ordinary with the inside of the tank. 08-02-2007 Over morning coffee and before helibase briefing my trainee and myself drove to the retardant site to see and inspect the tank ourselves. We inspected the tank and shot some pictures and this is what we THINK. When ship nears the end of its fuel cycle, they wash the buckets in a rinse tank. This is what happened as far as I can tell.....The bucket was lowered into the rinse tank, the control head was lowered past the top of the tank and hung down the side of tank. As bucket filled, bucket sank, pilot began to lift. The cables of bucket snagged on the corner of a "sight window" on side of tank. Helicopter kept lifting and cable was snapped. Pilot flew back to Middlefork helibase. None of the personnel at the retardant site saw this happen. **Corrective Action:** At this time a physical solution has not been implemented to fix this, but bucket operations out of this retardant site have been shut down. Only snorkel refill helicopters will be allowed to use this dip site. A long term solution will be forthcoming, but unknown to author at time of this writing.

SAFECOM 07-0870 Narrative: Carabineer was attached to anchor point and presented to rappels for final visual safety check before take off. Final checks of aircraft, rappel bracket and rappellers was performed and completed. We proceeded to rappel spot, pilot performed power and performance checks and gave the verbal signal for the rappel mission to proceed. I continued on with rappel mission and proceeded to open the door, as I repositioned to the door I was stopped by rappellers and notified, by hand signals that the carabineer attached to the anchor point had come open. I turned to check, and saw that the carabineer attached to my harness had become unlocked and the gate was in the semi opened. I closed and locked the carabineer, performed a visual check with rappellers and continued on with rappel mission. Rappellers were deployed and the aircraft returned to Helibase for the second stick of rappellers. A close inspection of the carabineer was performed and the second rappel mission proceeded with no further incidents.

Corrective Action: Submitters Comments: Notification was made to a check spotter and helicopter specialist. Upon review of the incident by a regional check spotter and HOS, it is felt that this maybe a combination of equipment issues (Dart 4 point shoulder harnesses, Miller spotter harness, STC for the Bell Medium Rappel anchor, and the SMC Light Steel Carabineer). Upon conciliation with the National Rappel Committee Chairperson, it is recommended that after the spotter unbuckles seatbelts and prior to the

spotter opening the door, that the spotter inspects the carbineer that attaches the spotter tether strap to the spotter tether attachment to ensure that the carbineer is locked. The carbineer that came unlocked during flight has been sent to MTDC for testing. This was a good catch by the rappellers on board the aircraft to prevent a small incident from becoming a larger one. R-5 RASM Comments: Good follow-up by the Rappel Spotter and HOS. Continued follow-up with MTDC will determine what the final fix will be on this. In the meantime, the procedure described above will keep the operation safe.

SAFECOM 07-0881 Narrative: NXXX was supporting the Cascade Complex, Yellow Fire with water delivery support. After making the 5th drop of the day, pilot was making a right turn out and in the middle of his turn, pilot described aircraft tail rotor made a kick to the left. Pilots were experiencing very turbulent winds and pilot thought it might have been the wind. After leveling off, pilot felt A/C kick to the left 5 or 6 times in a 1 minute or so time frame. Pilot made a precautionary landing in Stolle Meadows. At 15:30 hrs Air Attack notified Scott Valley Helibase and mechanics were escorted by the manager through fire area to A/C. Mechanics troubleshot problem and could not find anything. Pilot performed some hovering maneuvers and a short maintenance flight and problem did not re-occur. Pilot alone flew A/C back to helibase. **Corrective Action:** Changed second stage hydraulic pump. Changed second stage hydraulic filter, removed and installed new pressure transmitter. Checked tail rotor head area and tail gear box. No defects noted. A/C returned to Contract Availability status at 08:30 on 08/12/2007. RASM Remarks: Great call pilots! No Further action.

SAFECOM 07-1043 Narrative: Castle Rock Fire Helco NXXX was traveling eastbound on the northwest side of the ridgeline running west-southwest downhill from the lookout chairlift on Mt. Baldy when NYYY was traveling along the opposite aspect of the ridge from his drop back to the baldy dip site in Broadway Saddle. I had a vantage point from which I could see Helco cresting the ridge into NYYY's flight path. I don't believe either ship saw one another until NXXX came over the ridge in front of NYYY and immediately made an abrupt move up and to the left to avoid a conflict. I witnessed this from the ground with no VHF radio so I cannot say if the two pilots were in radio contact with one another. I resisted the urge to contact NXXXX as he came over the ridge as I knew that this was the Helco ship and I assumed the helco would be aware of NYYY's location. This is not to mention that the helicopters were working on a variety of the many Tactical frequencies on the fire, the one air to ground assigned to the fire was jammed with traffic, and I was quite wary of contacting the helco on air guard to inform him of a helicopter's location. It was not what I'd call a near mid air collision, however, it was too close for my own comfort level on the ground, and certainly appeared to me that the NXXX was surprised to see NYYY in front of him and pulled up and out hard. I can't really emphasize enough that it may have just looked bad (i.e. close) to me on the ground, I wouldn't be surprised at all to learn that the pilots were in contact and Helco was just taking a quick look over the ridge. **Corrective Action:** unknown from my P.O.V. I believe the fire assigned an additional air to ground frequency to allow for better communication amongst resources.

SAFECOM 07-0971 Narrative: After landing on a sandbar next to the Salmon River to off load two Division Supervisors the Manager and Operations Chief reloaded to return to McCall. While climbing out of river bottom the Operations Chief saw two cables

crossing the river from the road to Salmon Creek Lodge. By the time the Ops Chief had time to notify the pilot the aircraft had already flown over them. Estimated the clearance at approximately ten feet. A high level recon was done above the landing zone but the cables were a 1/4 to 1/2 mile up river and our approach to the landing zone was down river. These cables did possess visibility markers, but were faded and not effective in warning the flight crew. This particular hazard was not identified on unit aviation hazard flight maps. To clarify, the landing area was on the Salmon NF while performing operations for the Krassel WFU on the Payette NF. **Corrective Action:** Reported to Helibase Manager. Will be noted on all hazard maps and covered at briefings. We will suggest to pilots landing near the rivers to include a high level recon broad enough to cover at least 1/2 mile departure if different from approach. Will advise the adjacent unit of the incident and ask for additional hazard maps to cover the furthestmost part of the Krassel WFU incident...RASM Remarks: Good suggestion! My experience with the Texas fires, one may want to also do the recon from different angles/directions, the sun angle can really play games with your eyes and terrain. Great heads-up for everyone.

SAFECOM 07-0957 Narrative: Mission was to long line (200") bridge decking (690 lbs) from helispot 11 miles to remote foot bridge site. Helicopter Manager personally hooked choker cable to remote hook prior to helicopter start-up without a swivel. Choker did not twist on to remote hook but the long lines were both twisted to the point of being destroyed. Load was dropped at planned site without incident and aircraft returned safely. **Corrective Action:** Operations were immediately terminated upon return of aircraft to helispot. Aircraft was inspected by pilot for airworthiness, released from project and returned to its home base. RASM Comments: Follow up discussion with HCWN and R6 HOS took place on 8/24 at Redmond. For unknown reasons, the HCWN became distracted and failed to attach a swivel between the load and the remote hook. The pilot was unaware of the situation during the flight. Upon delivery of the load to the designated drop point, the pilot released the load at which time the long line (2-100' sections) began to unwind. The pilot returned to the project helibase without further incident. Both long line sections were damaged and removed from service. The HCWN, accepting responsibility and accountability, has requested presenting a discussion on Situational Awareness using this SAFECOM Incident during the FY 08 R6 Helicopter Managers Workshop. The take home message here is that every Aircraft Manager has the responsibility to ensure that all procedures and policies are in place including assessing and mitigating associated risks PRIOR to mission engagement. 8/27/07

SAFECOM 07-0944 Narrative: At 1150 on 8/19/07 helicopter was requested for bucket work on Div Z of the Rombo Fire. At approximately 1215, the dip site manager reported that the helicopter had hit a power line and started a fire. The pilots noticed the fire and started bucket work. The helibase manager contacted the helicopter and asked them if they hit the power line. They were not aware that they had struck the power line. Ship continued with bucket work on Div Z until conditions were too poor to continue to fly. At 1250, helicopter landed at helibase and examined bucket and longline, could not find any signs of contact to a power line. At 1530 the ship's crew and I drove to where the incident occurred and looked at the power line and departure path ship was flying. At 1545, back at the Rombo helibase we examined the bucket again and found a 10" mark on the lower third of the bucket where the strike occurred. **Corrective Action:** At 1430 the Rombo Helibase conducted an after action review of the day's events. The power line

hazards were reviewed again by all personnel. RASM comments: This event was investigated by the Regional Office as a Regional Incident with Potential. The helibase did a thorough hazard briefing prior to the mission, and the pilots knew power lines were in the area. They did an appropriate recon and felt they identified where all the lines were. The lines were hard to see, and the pilots clipped the line with the bucket. Even with focus and seemingly good situational awareness, things can happen. Fortunately, everyone walked away safely. The take home message is to look twice while working in areas with power lines, wires can be hard to see.

SAFECOM 07-0900 Narrative: During an external load operation. A back haul request was made by Line Personnel, the Hot Shot Crew with qualified HECM's called in the manifested weight of the backhaul at 550 lbs. When helicopter picked the load his load cell registered the load a little over 900 lbs. His allowable at that point was 1200 lbs and he proceeded back to helibase with the load attached. No further problems encountered. The load was safely delivered back to Helibase. Even though the Long line and remote hook weighed approx. 100lbs. Helibase person figure the load at 650 lbs all together before sending helicopter on the mission. The load was underestimated or miss weighed by approx. 250 lbs. **Corrective Action:** The helibase manager was notified along with the ASGS. Another scale was sent out to the sling site and a reminder to all folks engaged in aviation activities that if you perhaps find yourself without a scale on the hillside. Use your IRPG for estimated weights of common firefighting equipment and if that is not available always overestimate the weight of each item. RASM comments: Here is another good reminder that cargo needs to be accurately weighed. This instance turned out fine, but things could have gone quite differently.

SAFECOM 07-0834 Narrative: Upon inspection of a pilot card during pre-use check it was discovered that the pilot was not carded for mountainous flying. This issue was brought to the attention of the helibase manager and carried up the chain to the incident management team. This pilot was from a region where he was unable to have a mountainous flight check at the time of his carding. **Corrective Action:** Communications between the Regional Aviation Group, CO's, and Air Operations Chief concluded that pilot needed a check ride for mountainous flying. The contract aircraft, pilot, and crew members were released from the incident, and a check ride was scheduled to resolve the issue. Pilots need to be aware that they must be carded for mountainous flying before arriving on incidents in the west. Units ordering pilots and aircraft need to specify the requirement of mountainous flying certification on resource orders when bringing resources to a mountainous flying environment. RASM Comment: This aircraft was carded by AMD without the mountain check ride and the pilot knew this. This was a good catch by a new manager. The check ride was completed 8/8/07 and the aircraft will be available on 8/9/07. RAMI comments: none.... UAO comments: Evaluation being held on 8/8 by R-6 Inspector pilot. UAO follow up 8/9/07: R-6 Inspector Evaluation Completed on 8/8 (PM), aircraft available at La Grande for assignment this morning.

SAFECOM 07-0912 Narrative: This was a point to point mission to MSO. The aircraft was requested by Payette Dispatch and arrived at approximately 1630 hrs. FS Pilot suggested to me to ensure the contractor pilot was carded. I did and found the pilot's card in order. I decided to ask for the aircraft card which he promptly pulled out and presented it to me with pride. The expiration date was 06/30/2007. In order to make the mission

(that was already late) I went through the proper steps and carded the aircraft on the spot. The aircraft had the required Part 135 Ops Specs on board with D-85 listing the aircraft. A quick call to R-4 AMI confirmed the contract number and I issued a point to point card. On my return I learned that this aircraft had been used in other point to point missions in the month of July. There was no safety of flight issues, just a matter of paperwork however; this is not the first time something of this nature has occurred with XYZ Aviation. Last summer I discovered a XYZ Aviation Cessna 206 about to take two USFS personnel on a fire recon mission with an expired aircraft card. That mission was of course cancelled. **Corrective Action:** RASM Remarks: As submitter remarked, not the first time with this contractor. I will contact FAO and have a review done of all pilots and aircraft of this contractor to see if all is in order (current). Also there is a failure of the "system". A/C should not have been able to be ordered with an expired a/c data card...On 8-18 I spoke with R-4 Maintenance inspector and also the FAO. FAO is working with Forest Dispatch on carding and ordering procedures...FAO remarks; FAO is working with Forest Dispatch on carding and ordering procedures. FAO will put together an aviation resource list that is used for the forest aircraft contact and card contractor card/qualification information. Check pilot and aircraft cards prior to any flight. No further comments.

SAFECOM 07-0916 Narrative: Helicopter lifted off from Willow Creek Helibase enroute to the Ahorn fire for bucket work. While taking off the marshaller noticed a fluid coming from the belly of the helicopter. The pilot was immediately notified. Coincidentally the helicopter had just been washed prior to the mission in which a water tender was used to wash and rinse the entire helicopter. The pilot said it was probably just water coming off the deck, but he would watch it. About a minute later the pilot called back that it had not stopped and he was returning to helibase. The helitack crew was notified and two fire extinguishers waited the return of the helicopter along with the water tender. The helicopter landed without incident. It was found by the mechanic a peepcock for the external fuel filter had stuck open. **Corrective Action:** The mechanic recycled it, flushed it and closed it and a run up. Nice job by the marshaller seeing and notifying personnel of the issue and bringing it to the pilot's attention. Even though it could have been passed off as just water running out the belly from the prior washing, there was good communication between ground personnel, ABRO, and the pilot. RASM comments: The manager notified the RAMI who returned the aircraft to contract availability. Good catch by the marshaller.

SAFECOM 07-0856 Narrative: Upon shutdown for refueling the pilot mentioned that the AFCS felt sloppy in the roll channel. He said that it was a little harder to control than normal. He said that he thought he could still safely fly and launched for another cycle. After a 0.3 cycle the ship returned because the pilots did not feel that it was safe to fly with the combination of the AFCS issue and the increased wind conditions. **Corrective Action:** A thorough inspection of the AFCS system and its components was made including wiring and mechanical function. No discrepancies were found. The laptop for programming the AFCS was then requested and flown out to the helicopter. The AFCS program was then reloaded onto the onboard AFCS computer and a test flight was performed. No discrepancies were found, and the aircraft was returned to service and then contract availability by the maintenance inspector...RASM Remarks: Good work by

the flight crew to keep the aircraft in top operational performance. Great call! No further action.

SAFECOM 07-1000 Narrative: Aircraft and Rappel crew were dispatched to a smoke report late in the evening while the thunderstorms were still in the area. During fire and rappel size up, while in slow orbit of the fire at 50 to 60 knots, the pilot noticed a caution light flash on the panel, while his attention was outside to the right. Pilot was unable to pinpoint which light flashed. Pilot decided that it must have been a pedal limit position light, which is common during slow flight when pedal limit device engages and disengages rapidly. Several minutes later during continued size up flight, the caution light flashed again while attentions were outside of the aircraft. At this point the pilot and spotter decided that because of not knowing exactly which light flashed (possible pending chip light), the time remaining before pumpkin time and weather conditions, the mission would be discontinued and return to base. No further caution light during return flight.

Corrective Action: All five chip detectors were inspected and found very clean with no metal deposits. Thus pilot and mechanic decided that the caution light flash was the pedal limit position light and aircraft was returned to service. RAMI comments: procedures were followed, no further comments.

SAFECOM 07-0857 Narrative: While circling the Day Peak Fire, during a SJ mission, a low pass over the jump spot was requested by the spotter. During the turn to final for the low pass the aircraft made an uncommanded roll to the right because of turbulence. While counteracting the roll with ailerons something (which felt like was located in the left control column) snapped and the controls felt loose and not normal. The pilot applied full power and was able to climb and maneuver the airplane out of mountainous area to a area of flat valley floor. In accessing the situation the crew determined that the right side control column was operating normally. The decision was made to have the right seat pilot fly the airplane to Missoula where a uneventful landing was made. **Corrective Action:** Upon investigation by R1 maintenance personnel, it was found that the aileron control cable that runs through the pilot's control column had a strand that had begun to fray. These cables are inspected at every 450 hour interval. The pilot's primary aileron control from the flight deck is safety redundant to the co-pilot and vice versa. As a precautionary measure, R1 AMI has decided to change out both pilot and co-pilot control column cable assemblies with new. The control column cable runs will be inspected on a more frequent basis. The Intermountain Region AMI has been notified to inspect their DC-3 for any similar damage. RASM follow-up: Here is an example of why good CRM is important. Kudos to the pilots involved. The replacements were made, and the aircraft went back to work.

SAFECOM 07-0795 Narrative: A recon flight was scheduled for three FS passengers (Forest Supervisor, Acting Fire Staff and a District Ranger) on 08/05/2007 @ 11:00 hrs to recon the Trout Creek Incident. Aircraft (CWN) was procured to fly the mission. Vendor has flown previous missions for FS with this aircraft. Two of the FS personnel were briefed on other aircraft flying in area and frequencies to be used prior to departure. Aircraft departed LGD approximately 11:30, and flew the mission for approximately 45 minutes and returned to LGD. Positive radio communication was not established with local dispatch at any time during the flight nor was the AFF functioning in the aircraft. **Corrective Action:** Center Manager talked to personnel on landing to ascertain what the

problem was. Personnel stated “red light” came on when radio was transmitted and just thought dispatch could receive transmission. On return to LGD, Center Manager explained flight following procedure and radio communication protocol to two of the personnel on FS aircraft missions. The aircraft avionics were checked before the next flight. RAMI - no comments. UAO Comments on 8/6/07. The follow-up with vendor is complete. UAO Communication with aircrew and passengers taking place, and SAFECOM update pending. UAO Update 8/7/07 – After speaking to all parties involved the findings are: 1) AFF not functioning. 2) FM radio not functioning. 3) Lack of good decision making between flight manager and pilot to test radio/AFF equipment, confirm flight following method with dispatch and discontinue flight with inoperable equipment. Duration of first leg with inoperable AFF/FM was approx 30-40 minutes. Two primary issues received emphasis during the UAO follow-up. The AFF unit had been operational for this aircraft leading up to this occurrence. The aircraft departed the airport without making a ground transmission (initial radio check-in) to either initiate AFF or 15-minute check-ins with dispatch. This simple task would have mitigated take-off with inoperable equipment. I was told by dispatch that initial calls often happen after the aircraft is airborne and outside the airport traffic area. I suggest to all aircrews, dispatch units and flight managers that an initial call be made prior to taxi and take-off to insure both FM radios and AFF are operational and to confirm method of flight following. If you wait until airborne, and outside of the airport traffic area, an initial call can be delayed well into 5 or so minutes due to sterile cockpit procedures and exit of the airport traffic area. In this case the non functioning AFF and FM radio wasn’t detected until well into the transition from the airport traffic area to the first recon destination (fire area) which was approx. 15 minutes from the airport. Once FM problems were determined, the pilot and flight manager made the assumption that AFF was functioning, and that AFF tracking was occurring. The flight manager agreed that once positive radio communications problems were detected, a decision to return to the departure airport should have been made. This would be regardless of whether AFF was functioning or not! The understanding that continuous FM monitoring, as a requirement for AFF flight following, was re-emphasized to all involved. The source of the FM radio not functioning was reported from the vendor as a setting problem (shot) coming from the back seat audio control, and was corrected immediately by the vendors avionics technician after landing from the first leg of the mission. On the second leg of the flight, 15 minute radio check-ins were established, with no further FM radio problems. The source of the non functioning AFF unit has not been determined, but the vendor called the company/supplier of the AFF unit for a replacement which has been installed and functioning. I checked the aircrafts historic flight data for the day in question, and it shows that the AFF system downloaded the aircraft flight data, although the aircraft was not being displayed real time in the dispatch center. (?) Regional/National issues identified – this is the third occurrence of a non-functioning AFF unit that has been turned into me this season. There’s confusion as to whether it’s the software or the hardware that is contributing to these occurrences, and no information to the field, to my knowledge, on how to troubleshoot AFF problems when they’re encountered.

SAFECOM 07-0783 Narrative: In support of the Shelton Fire, the pilot of a SEAT declined the last mission of the day based on his judgment of sun angle, drift smoke between the incident and the SEAT Base and available fuel to reach an alternate airport. SEMG notified dispatch and message was passed along to the Air Attack on scene.

Corrective Action: Kudos to the SEAT pilot!! This pilot's situational awareness and risk assessment beyond mission accomplishment is the operational level of what an aviation "safe attitude" is all about. In recognition of professional performance during a hazardous aviation event, it seems appropriate this individual should be considered a recipient of an Airward. UAO Comments: Good example of Operational Risk Management by the aircrew (Pilot). Pilot will be recommended to Regional Aviation Safety Officer for "AIRWARD".

SAFECOM 07-0773 Narrative: We left Salmon, ID airport at 1045 on a forest pest detection survey. Before leaving we spoke to other pilots in the air to find out about smoke visibility in the surrounding areas. They reported light smoke with good visibility. We decided we would see from the air if the smoke would hinder our survey and if so we would return to Nampa, ID. Upon flying over the ridges close to Salmon we determined that conditions were not satisfactory for our mission, and contacted Central ID dispatch to tell them we were enroute to Nampa. Visibility was around 25-30 miles due to a layer of smoke on surrounding mountains. While in the air we talked to pilots again to find out how smoke was further on towards our destination. They again reported good VFR conditions in the area. We then flew towards Stanley, ID to avoid TFR's in the area. South of Stanley we crossed over the larger peaks in the Sawtooth wilderness. The visibility began to narrow some, but we could still maintain good VFR. As we crossed over Atlanta, ID the smoke became thicker and visibility began to decrease. We continued down the middle fork of the Boise river crossing over weather by air strip. Heading east we ran into very thick smoke. Pilot noted that we might not want to fly into this and should think about landing till the smoke dissipates. We knew we could get into weather by or Atlanta safely but going back to a paved runway might lead us into poor visibility again. Pilot mentioned he had been into weather by earlier in the year on a private trip and felt comfortable of the landing strips condition. We both knew it was a class 4 airstrip, but due to the circumstances felt it would be much safer than trying to push through the smoke. We contacted Boise dispatch and let them know we would be landing at weather by. We made a superb landing and contacted dispatch from the ground. I told them we would wait till the smoke cleared a little before leaving, and asked if they would find out if it would be ok for me to leave with the aircraft. I was told it would be fine to leave with the Pilot when we felt it was safe. After about 1 hour it was clear we would not be leaving soon. I then contacted dispatch and told them I would be getting a ride to ID city with patrol 22 who happened to working in the area and heading to Id City. I then left Pilot who was able to leave a few hours later when the smoke lifted.

Corrective Action: FAO remarks: No further action needed. Submitter corrective action: Landing at Weather by rather than continuing flight. FS employee riding home in a FS vehicle. Pilot taking off and returning to base when visibility cleared enough to continue. RASM Remarks: Good risk management/judgment by the pilot and the FS employee. Kudos to the employee to call the home unit for additional advice. Great decision to drive back! Thanks for the detailed information.

SAFECOM 07-0761 Narrative: During a visit to various helibases in Region 6 between July 18-21, and then cursory reviews of assigned personnel at others, it was discovered that three separate helibases were either operating without a qualified helibase manager or were operating with a qualified Helibase Manager 2 (HEB2) when the number of helicopters at the helibase dictated the need for a Helibase Manager 1 (HEB1). For all

three instances, the Aviation Operations Branch Directors (AOBD's) and/or the Unit Aviation Officers (UAO's) were aware of the management deficiencies but chose to continue operating all of the helicopter resources. **Corrective Action:** These occurrences and issues were elevated to the Regional Aviation Safety Manager, Regional Aviation Officer, and the PNW Director, Fire, Fuels, and Aviation. A joint letter issued by the PNW Director and the Branch Chief for the BLM on July 31, addressed the subject and states that the requirement for appropriate helibase supervision must be followed.

SAFECOM 07-0823 Narrative: On August 5, during Area Command Aviation conference call, I pulled up the NIFC Temporary Flight Restriction site to view the other Complex's TFR's. I noticed that the NIFC site did not represent the TFR for the Cascade and North Fork Fire accurately. The TFR as submitted to the FAA included the ICP and Knox Helibase, the NIFC site's map did not. Additionally, the North Fork TFR also was not accurately depicted on the NIFC site. Johnson Creek airstrip was open for fixed-wing aircraft an individual who reviewed the information from NIFC site may have inadvertently entered into the active Cascade Complex TFR. I know that this disclaimer states not to be used for navigation purposes, however being a government site this may have led some pilots to chart their flights based on the information provided. I just pulled up the Cascade Complex TFR 7/0811 and the North Fork 7/0299 and they are still not capturing the correct information as stated in the FAA NOTAM TFR site. August 7, 2007 @ 1313 MDT and the TFR representations are still incorrect. Fortunately a local festival which could have included up to 40 flights into Johnson Creek Airport was cancelled and we have not had intrusions into the airspace. **Corrective Action:** Incident aircraft were provided the correct TFR map, hence they were aware of the TFR boundaries between the 2 incidents. RASM Remarks: National Airspace Coordinator has already been informed. As stated by the submitter, the information provided by the NIFC site has a disclaimer and IS NOT FOR NAVIGATIONAL PURPOSES...THE ONLY OFFICIAL SITE IS THE FAA AND THE NOTAM SYSTEM. The FAA, Airforce sites were confirmed by the National Airspace Coordinator and were found to be correct, one contractor has software issues (it appears) and has not corrected this as of this writing, they have been informed of the errors by the National Airspace Coordinator. Please continue to brief that the only official site is the FAA.

SAFECOM 07-0869 Narrative: Copeland Helibase heard radio traffic of an aircraft contacting East Zone Air Attack asking to transition through the TFR. ATGS reported the number, type and location of aircraft working and cleared the aircraft through the incident after giving an elevation, location to pass through and a barometer. The aircraft responded that he must be on the wrong fire, he was looking for the Cascade Complex, not the East Zone Complex. ATGS provided the Air to Air frequencies for the other complex and no more radio traffic was heard from them on the East Zone Air to Air. Changes with air to air and air to ground have changed almost daily on the East Zone Complex. Although most people on the fire are adapting, transient aircraft appear to find it difficult to keep up with the changes. **Corrective Action:** Concerns with changing the air to air and air to ground frequencies almost everyday were shared with the ASGS, and air space coordinators just hours before the conversation took place. The frequencies are going to change again tomorrow because of the inability of GA traffic to use assigned frequencies. Air operations from the helibase will stop if confusion exists with correct frequencies...RASM Remarks: I first spoke with the Copeland Helibase MGR, than I

spoke with the GB MAC Frequency Coordinator. Some of the frequency changes were to appease the General Aviation traffic that may not have 740 channel spacing radio's (some still may be equipped with 720 and maybe 360s). The Great Basin MAC Freq. Coordinator. will contact the Area Command Frequency Coordinator to validate: ...1) Frequencies are NOT being changed mid shift, 2) that we can get some consistency with the frequencies (keeping the same frequencies), and 3) that we can issue on one paper the frequencies for the different complexes for the pilots to reference so the same information is getting to all of the bases/pilots (that may be traveling from one complex to another). I'll update as additional information comes in...On 8-13 I did speak with the Area Command Frequency Coordinator (A.C. Freq. Coord.), He confirmed that there will NOT be any changes to frequencies till the end of the shift. He also confirmed that the Freq. change was in response to the FAA to appease GA traffic. Additionally, the A.C. Freq. Coordinator stated that he pulled up the past 5 shift plans and the only change was an additional Air-to-Ground Freq was added to the Horton Fire. If there was other changes than what was listed to the shift plan, he was not aware of these...NOTE, The key message here: 1) PLEASE brief the correct frequencies, ensure that there is "read-back" that the information is clear and understood...2) If going to a different complex/fire, DO NOT go until all frequencies are understood and 3) Ensure you stay outside the Fire Traffic Area (FTA) till you have clearance to proceed...AIRATTACKS, please preface your call sign with the complex or fire you are working with, this will reduce confusion for the other pilots as to which AA (& fire!) your working with! Additional update, I did research all of the 220's going back to 7-28 and there have been 16 additions and or changes to the 220. Some had to do with radio interference with neighboring fires/forests, growth/complexity, and the FAA changing things up.