August 2009 SAFECOM Summary

SAFECOMS by Aircraft Type

For the month of August there were 121 USFS SAFECOMs submitted, well below the 10 year average of 202. Of the 121 SAFECOMs; 27 were for fixed-wing, 17 for airtankers, 56 for helicopters, 15 for helitankers and 1 N/A.

SAFECOMS by Category

We have revised our aviation safety website based on the four pillars of Safety Management Systems (SMS). We believe the site will give you a better understanding of SMS and is also much easier to navigate through. Please check it out at: http://www.fs.fed.us/fire/av_safety/. Comments are always welcome, contact Barb Hall at bhall@fs.fed.us or 208-387-5285. Thanks
SAFECOM’s by Category continued

AIRSPACE - There were 8 airspace events reported. Most were airspace conflicts and airspace intrusions. Remember, your best defense is your eyes and everyone on board should be looking out, of the aircraft that is. See and Avoid!

HAZARD - This is the second month now that communications were well below the average of 50%, there were only 8 reported this month for a mere 27%. Pilot action, in which most were associated with dragged and dropped loads accounted for 23% in this category. Preflight action accounted for 14% in this category, SLOW DOWN AND LOOK AROUND.

INCIDENT - Once again, dragged loads dominated this category at 30% (6 reports) while the number of dropped loads only accounted for 10% (2 reports). Precautionary landings accounted for 20% (4 reports), which shows good decision making, better safe than sorry.

MAINTENANCE - Fifty-four percent of the reports submitted were maintenance related. Engine and electrical issues each accounted for 18% (14 reports each). There was one engine failure in an Aero Commander and a engine shutdown on an S-64. Instrument and mission equipment each accounted for 8%, (6 reports each). Flight controls and fuel each accounted for 6%, (5 reports each).

MANAGEMENT - There was one external management report and one internal management report.

News from the SAFECOM Working Group

The new feature of being able to upload pictures is now in place and has been utilized a few times. Thanks to you that have sent in pictures to enhance your report.

Our next effort is getting your feedback through an online survey on the SAFECOM system. In an effort to reach as many folks as possible, we will put it on the internet linked from the SAFECOM home page and through e-mail distributions. Please take 5-10 minutes to complete the survey and provide us with your thoughts. This is your chance to have an effect on aviation safety. The survey will be open from October 1, 2009 to July 31, 2010 to get the widest possible respondent pool, including seasonal employees, vendors and contract pilots. A running total of responses will be posted on the SAFECOM website monthly, and survey results will be distributed shortly after the survey closes.

We are also working on completing a presentation on the appropriate use of the SAFECOM system and will begin work on updating the A-106 Mishap Reporting module as well.

Thanks for your efforts at improving aviation safety.
These are samplings from the SAFECOM’s submitted for the month of August. We hope you will select a few of them each day to discuss and use the lessons learned in your daily briefing.

09-0727: Pilot found a crack on the trailing edge of a tail rotor blade. Mechanics made a repair to the blade using a glued on patch. After communicating with two regional AMI’s and being asked to provide supporting documentation substantiating the repair, the tail rotor blade was removed from service and replaced because a repair was not authorized. Aircraft was returned to contract availability after a test flight was performed. CORRECTIVE ACTION: RASM Comments: Good follow-up action by the manager in this case to make sure that the repair was proper and allowed. As it turned out it wasn’t an approved repair and the blade was changed.

09-0724: Pilot attempted to start aircraft with rotor blade tied down. Pilot aborted start-up procedure. CORRECTIVE ACTION: Submitters Comments: Mechanic inspected rotor blade and tail boom, no defects found. Contacted regional maintenance inspector. No further action required, aircraft returned to service. Reminded pilot and fire guard of communication importance prior to start-up. Reminded pilot of responsibilities of aircraft being ready to fly before start-up. RASM Comment: Pre-flight before every flight. Naturally a complete pre-flight needs to occur first thing in the morning to assure that the aircraft is ready to go, but also a modified procedure prior to flight during operations or upon dispatch needs to be done and done thoroughly. If you get distracted or interrupted in this process obvious things can get missed.

09-0720: Interference on the National forest main frequency or “Command Frequency” Started receiving interference from another dispatch center. Have contacted help desk. Tried to raise to severity 1, but remains on severity 3. Safety related issues are potential inability to communicate with aviation or ground resources during incidents. We have a type II incident currently in the forest and another fire in close proximity to the forest that will become a type I incident if it meets the trigger point. Radio traffic from the other dispatch center is being received very clearly on this National Forest. CORRECTIVE ACTION: RASM Comments: Able to get elevated to level I and the problem is being actively worked on.

09-0716: Crew was performing proficiency rappels at the helibase with approval from the incident. During second load, consisting of three rappellers, first rappeller on the left side hooked up to the back side of the genie instead of the front. This was noticed first by the rappeller seated next to him, and then by the spotter as he returned his attention to this rappeller after checking the right side rappeller. Spotters decision was to discontinue the rappel. Rappellers were given the signal to return to their seats and the spotter notified the pilot that the rappel would be discontinued. Spotter disconnected genies and dropped ropes, aircraft returned to helibase. CORRECTIVE ACTION: Submitters Comments: A discussion with the crew occurred, with the spotter reminding everyone to properly orient the genie to the front before hooking up. Mock-ups will be performed to ensure this rappeller is proficient, and spotter is satisfied. RASM Comments: This is a good example of why we have the check system we have in place for assuring everything is correct before the rappeller exits to the skid. Good job in picking up this error by both the other rappellers and the spotter, and a good decision to stop the rappel mission rather then make the correction in the aircraft and continuing on. The point of doing proficiency rappels to assure that the skills developed in training are still intact and being used. The best way to assure that is to stop the proficiency, get on the ground and de-brief with every one so that they all get the benefits of a timely AAR.
09-0715: Load calculation performed by relief pilot did not match the load calc posted by the previous pilot (same altitude and temperature). Manager and relief pilot reviewed the charts and concurred that the relief pilot calculations were correct. The relief pilot discussed performance charts with the previous pilot and determined that new load calc. was correct. The regional helicopter program manager also confirmed that the relief pilot was using the proper load calc. CORRECTIVE ACTION: Submitters Comments: This SAFECOM was discussed as an AAR at the helibase morning briefing. It was suggested that all managers and pilots jointly review load calculations and charts. RASM Comments: Load Calculations are a basic pilot requirement, but are notorious for being confusing and done improperly. It really is critical to make sure they are done correctly and adhered to. Thanks for bring this out as an issue for others to learn from.

09-0714: After picking up 4 nets of food items from helibase, pilot headed to the incident. Approximately 10 miles from the helibase, pilot informed ground personnel about light items coming out of the load. Pilot asked cargo personnel if he should return to the helibase, they responded by telling him to complete the mission, since he had already crossed through a congested area. An AAR was conducted by the Helibase Manager with all Helibase personnel to reemphasize proper rigging and packing of cargo nets. Pilot was instructed due to the distance from helibase, helibase communications would have been the preferred contact in lieu of cargo. CORRECTIVE ACTION: RASM Comments: AAR actions and comments are appropriate, Loose or small items need to be secured in the nets or not transported externally.

09-0708: Helicopter departed the helibase for a water dropping mission. Approx. 20 minutes after departing aircraft returned with a damaged bucket. After the helicopter landed and shut down the pilot stated that after filling his bucket he starting climbing upslope following helicopter he was instructed to follow to the drop, as he came over the ridge the bucket contacted the ridge top damaging the bucket. He then returned to helibase and shut down. CORRECTIVE ACTION: Submitters Comments: Helicopter manager and pilot debriefed after the incident RASM Comments: Aircraft was stood down until RAMI could examine the aircraft and talk with the mechanic concerning any damage, no damage was found. Pilot was stood down until Regional HIP evaluate the situation and pilot. This was accomplished the following afternoon and a summary of the HIP’s finding is below. HIP Comments: The pilot was out on his first mission on this fire losing his focus on the bucket because he was concentrating too much on keeping up with a faster tanked aircraft that he was supposed to be following for directions. In hind sight calling the other aircraft and asking him to slow down for this first leg out would have been the appropriate thing to do and not get distracted with one task and losing track of another. I spoke with the pilot and found him to be experienced. He told me exactly what had happened, readily claimed all responsibility, and said he just lost focus on the bucket and long line while trying to follow a tanked medium. Neither smoke nor wind were factors. I had him fly an external load vertical reference evaluation flight. He used a 150 foot long line and empty cargo hook and flew the tasks exactly as I requested, and his long line work was fine. He demonstrated good and safe vertical reference work. We discussed the importance of maintaining situational awareness, particularly with a long line and the needs of the fire and if the long line was even a good idea, and agreed that a belly hook would have been more appropriate.

09-585: Abnormal noise heard coming from r/h engine during taxi. Flight crew reported all engine parameters equals normal. Upon investigation by maintenance it was found that the r/h engine low blade angle (LBA) backup cam plate had failed and was rubbing against the propeller spinner bulkhead. Damage was confined to this area. CORRECTIVE ACTION: The Sherpa has experienced this failure previously and there has been a service bulletin issued to correct the problem. Modification no. 6996 has been performed which basically reinforces the cam plate by among other features replaces the cam plate aluminum bracket with one manufactured from stainless steel.
09-0704: During a proficiency Rappel I noticed as I came off of the skid that the rubber O-ring had slipped up over the J-Hook on the Rappel Harness and was sitting about where the release button is located. I assessed the situation and decided that there was no danger in finishing the rappel and continued my decent to the ground. When I made my landing onto the ground, I fed the rope through the Sky-Genie so that I could disconnect. During this time when there was slack on the rope, the J-Hook was able to cross-load underneath the Tri-Link making it extremely difficult to disconnect from the Sky-Genie. I managed to get the J-Hook back to a position in which it was not cross loaded and disconnect from the Sky-Genie, but it was a huge inconvenience that prolonged my time under the helicopter. CORRECTIVE ACTION: Debriefed after the rappel and talked about making sure the O-ring is always over the J-Hook during buddy checks and spotter checks. Note: Due to Bell 206L4 Rappel Procedures, we do not present our Sky-Genie to the spotter before rappeling. {Sky Genies are presented to the Spotter upon aircraft loading as this is when rappellers hook up to the Genie, as per Bell 206L4 procedures}. From FAO - Crew debrief included making sure rappellers and spotters know how to prevent and remedy {as the rappeller in this Safecom did} the cross-loading if the o-ring does slip into the wrong position. RASM comments: This is a well-written SAFECOM on a very hot topic, thanks for your submission as this is an issue that is being tracked nationally. SAFECOM submissions such as this are excellent opportunities to share information and learn from each other. This crew recognized the problem and discussed methods to prevent side-loading. According to the National Helicopter Operations Specialist {HOS}, there are issues with the O-rings that have resulted in distraction during the rappel, such as the occurrence noted in this SAFECOM. Notes from the National HOS: “we are aware that O-rings are slipping off and creeping towards the J-hook. The O-ring is an accessory that may be beneficial in capturing the J-hook and keeping it in line with the front of the Tri-link but is not required. In this particular instance, the rappeller may have been in a standing position in order to acquire the ‘slack’ in the rope after landing. The J-hook may have the slipped down the side of the Tri-link and created a bind. In the Interagency Helicopter Rappel Guide D.4 Elevated Platform, D.6 High Tower, and D.8 Helicopter Rappels, it identifies rappellers must “slow before landing, assess landing area before final ground contact. Upon ground contact, squat while feeding slack in the rope. Disconnect from rope in a fast smooth motion while standing from a squat.” If the J-hook was centered on the Tri-Link for the rappel, then in the process of unhooking from a smooth deliberate squat, the release of the Genie when standing will be observed. Recommend additional training for release of the Genie when coming up from a squat position without the benefit of an O-ring to see if this helps.”
09-0701: After take off, pilot noticed slight buffetting in controls. The ATS looked out onto right wing and noticed fuel coming out of fill port. The pilot returned to airport without incident. Cap was still attached with lanyard. CORRECTIVE ACTION: Submitters Comments: Aviation maintenance inspector inspected cap and locking device and no defect was noted to locking feature. Fueled aircraft and 27 gallons was put into right wing. Returned to service. RASM Comments: Good through pre-flights need to be conducted with assurance that the fuel cap has been seated and locked properly by who ever fueled the aircraft. Don’t depend on the fact that the fuel truck driver ‘always’ puts the cap back on. It is the PIC’s responsibility to check the fuel quantity and assure that the fuel cap is secured.

09-0695: Full bucket impacted top of two trees during climb-out from dip site, tearing two holes in bucket. Aircraft was at max power and pilot was focused on not exceeding limitations while looking out for other aircraft on site during climb-out. After determining the bucket to be non-functional, pilot returned to helibase. CORRECTIVE ACTION: Pilot and Manager discussed using a smaller bucket and slowing down, even if that means slowing down the other aircraft waiting to dip. AMI comments: vendor had another bucket he used while the damaged bucket is being repaired.

09-0688: During post flight inspection the mechanic found a crack in the lag pin thrust bearing washer. CORRECTIVE ACTION: I contacted the RAMI and explained the problem. The lag pin thrust washer was removed and replaced. A test flight was conducted and I contacted the RAMI and the mechanic will e-mail the log book entry. FAO Comments: A good catch by the pilot and crew during the post inspection. No cracks were found during the pre-inspection of the aircraft. Maintenance Inspector requested a run-up and aircraft was returned to contact availability. RASM Comments: Good post flight examination by the mechanic picked up this problem before it could lead to something worse.

09-0687: On the morning of Aug.19th we began survey activities. I closed the cargo door and its closure and latching mechanism functioned normally at that time. After three plus hours of survey work we landed for fuel. Upon preparing for departure for the second flight of the day, I noted that the lower latching claw on the cargo door was not operating, and flight operations were suspended. Cessna Service center was contacted, and it was determined a push-pull rod connecting the door handle bell crank to the latching claw had fractured. A new replacement was not locally available, and had to be ordered from Wichita, KS. Part ordered with overnight delivery. CORRECTIVE ACTION: RMI: Push-Pull Rod was installed and aircraft was returned to service by the service center. RMI was informed and aircraft was returned to availability. No further action required.

09-0681: The tanker departed the ATB enroute to the fire but at 1610 the tanker reported was returning to base. Flight Crew smelled an electrical smell in the aircraft: then they heard a puff sound. The crew attempted to locate source of electrical smell but was unable to do so. The crew elected to turn off all unneeded electrical systems. Prior to landing the tanker jettisoned the retardant load and was able to land without any problems. The tanker went to the day-off parking to check the aircraft at 1615 local. The flight crew did a run up of engines to try to duplicate conditions during flight but was not able to discover the problem. Calls were made to the company to discuss issues. Will work more on aircraft with mechanics. The Regional Maintenance Inspector was advised. CORRECTIVE ACTION: AMI comments: procedures were followed as required.

09-0545: After pre-flight inspection pilot missed roll of paper towels on the top of cowling behind transmission. After start towels came in contact with exhaust stack and were blown off the aircraft upon take-off and showed indication of being burnt. CORRECTIVE ACTION: In addition to the pilots pre-flight and pre-start walk around, a second check of all aircraft surfaces should be conducted. Acting RASM Comments: There is no substitute for a thorough pre-flight inspection.

AUGUST 2009 SAFECOM SUMMARY  USFS AVIATION RISK MANAGEMENT
SAFECOM’s continued......

09-0662: Tanker XX was cleared by the tower for takeoff, but upon taxiing onto the active runway the pilot determined that he had a mechanical issue and needed to come back to the air tanker base. Tanker XX was directed to taxi down the runway until he could exit onto the first taxiway. While T-XX was taxiing, T-YY was cleared to taxi into position and hold on the active runway. While the pilot of T-YY was waiting on the runway for T-XX to exit, he adjusted his left engine so it was running lean to keep the engine from loading up. The tower cleared T-YY for takeoff and he failed to readjust the mixture on the left engine. Shortly after takeoff at approximately 200’ AGL, the pilot experienced backfiring and jettisoned the load. He identified the problem to be in the left engine and shut the engine down. The pilot returned safely to the base. The mechanics checked out the plane and determined that there were not any other problems associated with the jettisoned load. CORRECTIVE ACTION: The Regional Aviation Officer, the Regional Fixed Wing Operations Specialist, and the Regional Aviation Maintenance Inspector were contacted and Tanker was returned to contract availability.

RASM comments: Kudos to the pilot for two things- first, he chose to jettison the load immediately rather try to troubleshoot the issue while climbing. Second, for speaking up on his mistake with the fuel mixture of the engine. This is a testament to his dedication to increasing the safety culture of our aviation program. It is easy to lose focus of the basics in our dynamic operational environment.

09-0670: When Air Attack (AA) arrived over the incident, helicopter NXXXX was working on the fire and two SEATs had been ordered. I had overheard the radio communication for an adjacent fire on the primary initial attack VHF-AM {air-to-air} frequency. The other fire was approximately 30 miles southwest of our fire. The other fire had two helicopters working and another on order: this required constant coordination and communication between the helicopters going to and from the dip site. In addition, the same VHF-FM {air-to-ground} frequency was assigned to both incidents, exacerbating congestion & confusion between air and ground resources. I placed order with dispatch for discrete air-to-air and air-to-ground frequency. According to Resource Order, an air-to-air VHF-AM frequency was ordered at 1013 and filled by the Coordination Center (CC) at 1058. The air-to-ground VHF-FM frequency was ordered at 10:50 but not filled by the CC until 1617, and filled with a frequency already assigned to the incident. During the 45 minutes it took to fill the air-to-air frequency and five hours to fill the air-to-ground frequency, multiple miscommunications with aircraft and ground resources occurred on both incidents. Often, aircraft and ground personnel were transmitting at the same time from both incidents which required one or more units to request the other unit to repeat their transmission, causing additional congestion & confusion. The time it takes to follow the established procedures for ordering dedicated AM and FM frequencies for escalating incidents is a problem. The CC Mob Guide refers to the National Interagency Mob Guide on the topic of dedicated radio frequencies. “The NIRSC National Communications Duty Officer {CDO} is the only point of contact for ordering AM frequencies. Incident requests for the use of dedicated air-to-air and air-to-ground frequencies will be made through established ordering channels to NICC and are filled by the NIRSC CDO.” Problem #1: Inadequate number of frequencies available to the local dispatch unit to manage multiple wildfire incidents with aircraft assigned. Problem #2: Unacceptable delay for an air-to-air frequency to be issued to safely and effectively manage multiple incidents within close proximity to each other. CORRECTIVE ACTION: UAM: an order for a secondary VHF-AM frequency has been filled by the CC for the remainder of the 2009 fire season to be managed by the local dispatch. This way, when an air attack {or incident} within the local area requests another air-to-air frequency, there should be no delay filling the request. If a third AM frequency is needed for the dispatch area, the order will still need to be placed through the CC to NIRSC. In addition, the local flight following frequency will be used for another air-to-ground VHF-FM frequency {as needed}. In the future, I recommend that {as SOP} the GACC fill an order from the local dispatch office for the secondary VHF-AM frequency at PL 3 {or above}: this frequency would not need to be requested on a fire-by-fire basis, but could be managed by the local dispatch unit as long as the GACC Preparedness Level is 3 or higher.
09-0638: During fixed tank operations on the fire the pilot [also an A&P carded mechanic] noticed an abnormal vibration while en route back to the dip-site. The pilot decided to land and shut down the aircraft in a nearby meadow to perform a visual inspection. He notified the manager immediately via cell phone after shutting down that he might have a problem. After performing the visual inspection, he did not notice anything obviously wrong. He started the aircraft and the vibration became noticeably worse, he shut down the aircraft and called me again. At that time the aircraft was placed out of service. CORRECTIVE ACTION: Submitters Comments: After further inspection by the pilot and mechanic, the following morning, it was determined that a spring bolt on the K-flex drive shaft had sheared. After the necessary repairs were made, the aircraft was placed back into contract availability status by the Regional Maintenance Inspector. RASM Comments: Good job by the pilot on this one. Clearly he was able to identify that something didn’t feel right and he stuck with it until they could find the problem and get it fixed.

09-0669: On Monday Aug 17th, the Forest Health aircraft departed airport to conduct an insect and disease survey. After departing we attempted to contact Columbia Cascade Dispatch center on National Flight Following. After several attempts on National we contacted Columbia on the Burly repeater. No other problems were encountered on the mission that day. Returning on Wednesday Aug 19th we stopped for lunch in Hood River and departed at 1350. Contacted Columbia on the Defiance repeater and continued with our survey. At the regular check-in time Columbia attempted to contact us on Defiance. We could hear the transmission, but Columbia could not hear our reply, just the keying of the microphone. After several attempts at contacting each other we headed in to TTD to land. AFF was used to track the flight to TTD. Dispatch was contacted by cell phone during taxi to let them know we were at TTD and safe. Dispatch was called later and we found out that the radio technicians have been working on the Defiance repeater this week, and this may have been what was causing the communication difficulties. Hopefully the radios difficulties are able to be resolved in the near future. CORRECTIVE ACTION: The Mt. Hood and Gifford Pinchot National Forests are in the process of upgrading their radio system this summer. The Radio Technician were working on National Flight Following {NFF} frequency on 8/19/09. The radio technician failed to notify dispatch that NFF was off line on 08/19/09. I spoke to the project leader about the situation: in the future radio technician will notify dispatch prior to taking down a repeater. Dispatch was able to flight follow using AFF during this event. All Units have been notified that Columbia Cascade NFF is out of service. FHP UAO Comments: All procedures followed in terms of pre-flight checks and use of back-up communications to insure proper flight following. I commend the flight crew for having a comprehensive communications plan in place. We’ve experienced other instances of disconnect between the radio technicians and the dispatch centers, I concur that procedures requiring advance notification, when possible, to dispatch centers be implemented.

09-0624: AT 1053 August 8, 2009 while flying an air attack mission our ATGS aircraft TCAS indicated an unauthorized aircraft in the TFR/FTA. The aircraft was flying from south to north at about 6000 MSL. CORRECTIVE ACTION: Attempts were made to contact the aircraft on various victor frequencies but there was no response. We followed the aircraft to xxxxx Lake, and alerted the Helibase. The aircraft turned off their transponder and proceeded north out of the TFR. UAO Comments: ATGS contacted the helibase. HB did not contact Dispatch, discussed process w/IMT AOB. Airspace Coordinator Comments: It is unfortunate that the Helibase did not contact Dispatch as the intrusion was occurring. That particular area is visible on the ARTCC radar scopes and they would have tracked the intruding aircraft and alerted FAA of the intrusion. Standard procedure when there is an intrusion is to alert Dispatch ASAP so they can notify FAA for a possible identification of the aircraft. Hopefully a valuable lesson was learned by all involved. Thanks for the SAFECOM - it helps us track trends for airspace.
09-0663: At approximately 1830 while performing leadplane/air tanker operations on the heel/left flank of the fire I experienced a potential `near miss` with a helitanker that was working the same flank of the fire just a little further up the flank to the East {approximately 1 to 2 miles}. I was on the base leg of a right hand pattern to perform a westerly retardant drop, with an airtanker behind me when the tanker pilot asked me if I had {visually} the helicopter in front of me. The Helitanker was at my 1130 to 1200 o’clock position and less than a half mile away {estimated}. I was unaware of his proximity due to my attention looking primarily out the right front window and side windows looking at the intended drop area. The helicopter appeared to have `drifted` to the West as they were approaching the fire from the Northwest to coordinate moving into their drop area behind another helitanker. I immediately executed a descending right turn to facilitate separation and diverging flight paths. After I began the `go-around` I contacted the helitanker and directed them to move back to the East more toward their drop area. They acknowledged my direction and there were no further issues. This situation highlights the need for all aircraft to maintain situational awareness of the fire traffic area and the other aircraft operating in the vicinity. It also highlights the value in every pilot paying attention and helping to create the most safe environment possible by querying the other aircraft when they perceive a possible unsafe situation. CORRECTIVE ACTION: RASM comments: follow up is occurring on this. Airspace issues and near mid-airs have been a real problem this fire season. It is important that our incident aircraft keep a focus on the expected aircraft also working within the FTA as well as the unexpected `intruder`. Good communication on the part of the Tanker pilot to ensure the Lead Plane pilot was aware of the helicopter. This will be updated as appropriate.

09-0655: During cruise flight at 14,500 ft, with the autopilot engaged in heading mode, the aircraft entered an uncommanded right turn. The heading bug didn’t move off selected heading, nor had I moved it. As the aircraft rolled through thirty degrees of bank, I hit the autopilot disconnect button on the yolk but this had no immediate effect. The HSI display indicated the autopilot was off, but the aircraft was very stiff on the aileron control and still in a right turn with about 45 degrees of bank. I tried the autopilot button on the console with no effect. I was able to overpower the autopilot and return the aircraft to straight and level flight. I had lost about 400 ft. of altitude and turned about ninety degrees to the right. Even though the aircraft would maintain straight and level flight and the autopilot still indicated it was off, the aileron controls were extremely stiff. I then attempted to pull the AP Servo circuit breaker but was unable to do so. Approximately 10 seconds after regaining straight and level flight, the aileron servo suddenly disengaged and I was able to maneuver the aircraft normally. I decided to return to the airport, and on the way back I noticed the left torque gauge was reading from 200 to 400 ft/lbs high on both the needle and the digital display, and both displays were unstable and jumping around. This ceased before landing. I do not believe the two issues were related. CORRECTIVE ACTION: RASM comments: There are two separate mechanical issues in this report 1} Auto-pilot malfunction, and 2} the torque gauge readings. Pilot made the correct decision to return to airport when the autopilot malfunctioned. Maintenance Autopilot: The manufacturer of the autopilot was contacted, the problem was described and the determination made that the autopilot controller needed to be replaced. Maintenance Torque Gauges: installed new torque gauge transmitter and calibrated: also replaced beta blocks on both engines. Pilot’s message: Submitted the SAFECOM so that other King Air pilots would have this information should they experience something similar. Since autopilots can malfunction from time to time, its a good practice to review the various ways to disconnect the autopilot.

09-0612: During the initial start up of the helicopter, and main rotor blade was tied down. Before the rotor blade began turning, the pilot realized it. and immediately shut down his aircraft. No damage occurred. CORRECTIVE ACTION: The helicopter manager and manager trainee should have been more aware and focused on the pilot taking off. We can do a more in depth walk around of the aircraft before takeoff. Crew discussed with pilot and crew about proper procedures for takeoff and landing to avoid future incidents and to remind ourselves that aircraft safety is a priority. AMI comments: The vendor needs to have the tie downs check on his preflight and pre-start check list.
09-0643: Helicopter was responding to the incident and landed at the ICP Helibase without notifying helibase personnel. Multiple attempts to contact the aircraft were not successful. CORRECTIVE ACTION: Submitters Comments: Upon landing and shut-down, the pilot was contacted by the helibase manager trainee. Discussion with the pilot revealed that he was operating on the frequencies that were given to him on the aircraft resource order. Multiple attempts to contact fire and helibase personnel were unsuccessful. The pilot finally made contact with the Main helibase on alternate frequencies, and was told to fly to the Main helibase and land at pad 7. The pilot overflew ICP helibase and did not see a pad 7. He attempted to make contact again and was unable. At this point he waited for a safe and appropriate time and landed at an unused and available pad. It was recommended to the pilot that he contact expanded dispatch prior to departing for the fire and confirm frequencies. RASM Comments: Multiple Helibases in close proximity to each can lead to confusion, as this SAFECOM illustrates. Good communication between the Helibases and an understanding that this can happen is important and giving clear instructions with details may have helped, i.e. the helibase ‘at the airport’ or something along those lines or at least let the pilot know that there are two helibases close together. Granted, it is the pilots responsibility to have the frequencies and know where they are going to, but we want to help them to get there safely.

09-0641: In anticipation of flying cargo out to the line, as Helibase Manager, I challenged the cargo crew to practice setting up/manifesting a couple of cargo loads. One challenge was to rig a Folda-tank for external transport via longline and remote hook. The cargo crew was a mixture of different Federal and State helitack crew members. We did this exercise at the A-219 for the State Fireline Explosives crew training. I was curious how other regions and agencies rigged Folda-tanks for helicopter transportation. The A-219, Unit 3 ppt. shows a Folda-tank being rigged with a longline attached to the metal bar? This does not seem right to me. If the A/C equipment is inspected and certified for operations, who inspects/certifies the welder and welded bar on Folda-tanks for air worthiness? Have there been any accidents, incidents, or Safecoms involving Folda-tanks? CORRECTIVE ACTION: Recognizing a hazard is only part of what it takes to eliminate a hazard and mitigate risk. Good work for taking the effort to recognize a problem, taking the opportunity to correct the immediate concern, and for notifying those that can improve the training module. UAO Comments: Thanks for taking the time to improve our training and procedures. NASS Comment: This SAFECOM with the recommendation is being sent to the Interagency Helicopter Operations Steering Committee to review the proposal. In review of SAFECOMs and mishaps reports, there were no incidents found in the transportation of Folda-Tanks via longline.

09-0571: Tanker was returning to base when the pilot noticed a new fire. The pilot contacted the Leadplane and advised. Lead told him to get the coordinates of the new fire, as the tanker came around in a steep turn approximately 600 ft AGL. The pilot, while focused on the ground, heard his TCAS announce an aircraft in close proximity. The pilot leveled the tanker and heard a voice out on the assigned Air to Air FM ‘That Was Ugly!’ and advised the tanker there were already people working on the fire. The tanker pilot never saw the Helicopter until he was past it. The terrain where the helicopter was working was very mountainous and hilly and the TCAS may not have picked up the helicopter until the tanker was right over the top of it. CORRECTIVE ACTION: Submitters Comments: AFF could potentially improve the airspace coordination. R5 RASM Comments: With multiple fires in the area and new starts popping up we need to be disciplined in how we move from one area to another when there is the potential for other aircraft working in the area. This incident was brought up as an example of the need to coordinate the airspace over these areas better, and hopefully the work that has been done with establishing sectors and I.P.’s will help. They will not solve the problem however, pilots and supervising aircraft, i.e. ATGS, ASM HLCO or Leadplanes need to make contact with the appropriate ECC or Area Manager before heading off to new incidents. Additionally coming into a ‘new fire’ with a fixed-wing aircraft at 600’ AGL is asking for potential trouble with helicopters that may be in the area. At the very least you are not doing that required high level recon for hazards if you are down that low, nor do you need to be that low to get an accurate Lat/Long.
While delivering supplies to H-1 the helicopter did not have communication with ground crews to receive longline. Once in the area the pilot swung the load to wide and augered it into the hillside twice, smashing most of the water containers in the cargo load and losing 2 boxes of MREs on the hillside. After regaining control of the helicopter and load he continued to carry the load over the crew on the hill. Once over the helispot the helicopter seemed to be moving around in an uncontrolled manner. At this time the wind was very calm. The load swung in and out over the top half of the crew at least 5 times when they decided to get way off the hill.

CORRECTIVE ACTION: RASM Comments: A Regional Inspector Pilot went down to this incident and followed up with the pilot. Regional Inspector pilot comments: Because of the severity of the reported incident, I felt obligated to fly a longline evaluation. His long line performance was below standards that I felt obligated to remove his long line qual. It was very clear to me that the pilot had not been given long line training. I actually conducted training with him, giving him some tips and suggestions. At the completion of this short flight, the pilot knew that it had not gone well, and asked if I would give him another chance. I agreed, and suggested taking a break and resuming. A troop shuttle mission was assigned, so I said we could fly first thing next morning, and reminded him that it would be an evaluation flight, I wasn’t there to give training. After returning from his troop shuttle, the pilot told me he didn’t see the point in flying the next morning, it wouldn’t be any different, and he was very worked up and nervous about this. We both agreed that he had no business flying a long line in the fire environment. I issued a new card with “No Vertical Reference” clearly written on the back. All of his other quals remain. I spoke to his crew supervisor, and the helibase manager, making sure they knew what had transpired. I also contacted the company and had a long conversation with the Director of Operations, who said he would get a replacement pilot out there ASAP. The pilot is a very good highly experienced pilot, and a very pleasant individual. His crew likes him, and commented that he is one of the best rappel pilots they’ve ever had. He simply needs Vertical Reference training. I hope he gets it. I want pilots like him on our fires.

On 8-1-2009 The Type 2 IA Crew was working in the bottom of a steep canyon. Some fire had established itself in the bottom and I had requested bucket drops to cool the area off. I had positive contact with air attack. I am assuming that AA had positive communication with the other two helicopters that were sent in my direction. The first bucket of water was dropped WAY too low as to the point that I was getting some really heavy rotor wash and the bucket was BELOW the tree-line, so low that the bucket had hit a tree at about half way from the ground. It looked as if the bucket had been damaged. I then looked up at the helicopter and in my opinion it looked as if the helicopter had lost control. Upon regaining control and lifting the bucket out of the area and away I reported to AA for the Pilots to keep their buckets above the tree line in this steep and narrow canyon. The drops after the incident were better, however my Crewmembers reported to me that a second tree had been hit with a bucket. I was not familiar with the aircraft number and I had NO positive contact with the Pilot. CORRECTIVE ACTION: I had made positive with AA to keep the buckets ABOVE the tree-line. I reported the Incident to the Operations Sections Chief, and filed this Safecom. I understand that Air/Ground tactical frequency can be busy & jammed up at times, but I would like to have more communication as to which Helicopters I am working with and direct contact with the Pilots on Air/Ground. Also I feel that Pilots need to be aware of the dangers of working in tight canyons with Firefighters in the area and consider methodical/safer ways to approach the incident. UAO Comments: Aircraft and flightcrew in question are under contract with the State, and a Federal HEBM was assigned to the resource. I was called by the Fire Management Officer on the unit several days after the event occurred and related that corrective actions taken ‘on-site’ needed to be elaborated on by the person who witnessed the events. I told the FMO I would follow up with AA on what he observed, and that I would also follow up with the pilot and cooperating agency District Forester about the reported events. I’ll provide a follow up after those contacts are made. We must expect good Air to Ground communications from any supporting aircraft, even if an ATGS is on-scene. It’s not documented that anyone followed up on the poor communications issue. More to come.
SAFECOM’s continued......

09-0632: Transitioned with relief ATGS and were returning to ABQ when we hit a Hawk. The bird struck the left wing about 4 feet in. Strike resulted in a dent between the leading edge and the rivet line. Observed one popped rivet. Contacted Regional Maintenance Inspector and company personnel. Decision on repairs is pending. CORRECTIVE ACTION: See and avoid as possible. RASM Comments: ATGS mentioned that the pilot did maneuver to avoid the hawk, but was unable to avoid making contact. The airplane will be ferried to a facility where further inspection of the aircraft can be done. The extent of the damage to the wing is not known at this time. Proper CRM procedures were followed by pilot and ATGS following this incident. Since this is the second bird-strike incident in the region this year, it is appropriate to review the Accident Prevention Bulletin from April 13, 2009 pertaining to Bird Strike Avoidance. In general follow these procedures when possible: Avoid flights along rivers or shorelines, avoid low flights over bird havens such as sanctuaries and landfills: Remember: birds will generally break downward when threatened so attempt to pass above them: hovering birds searching for prey have been known to attack aircraft, so give them a wide berth: maintain slower speeds in areas of bird activity {to allow for more reaction time}: use landing lights when possible to make the aircraft more visible to birds. In addition, discuss emergency procedures to be followed in the event of a bird strike.

06-0629: During a ferry, pilot notified helibase of status showing current location {3 minutes out}. Called back again notifying short final 1.5 minutes out. 5-10 seconds later pilot notified helibase that right front window screen had a failure and that he would land at his pad non-emergency. Pilot maintained flight and landed safely. After landing, visual inspection, and talking with pilot, it was initially determined that no in-flight activity occurred, i.e., bird strike or otherwise. CORRECTIVE ACTION: Calls were placed to ASGS, Dispatch, Regional Maintenance Inspector, Regional Helicopter Operations Specialist, and Regional Aviation Safety Manager. A search was conducted at the end of the runway for missing windshield pieces that could not be accounted for inside the cabin of the aircraft: with nothing found. RASM Comment: This incident is being investigated as an Incident With Potential for we were very lucky that no one was setting in the right front seat of this aircraft. The plexiglass windshield came inside the aircraft with great force: caused by the 100 mile per hour airspeed. The shattered plexiglass scared and cut much of the right side interior, even in the backseat. The pilot was flying with the left side door off and stopped many of the larger pieces from exiting the aircraft through his door. It was discovered that the bottom edge of the windshield had no glue residue on it as would have been the case if it had been properly glued into position at the time the aircraft was manufactured. Once the windshield was examined the aircraft windshield frame was examined confirming the absence of glue. The helicopter has only 1727 hours on it so the vendor will seek restitution for the repairs from the manufacturer.

09-0573: The helicopter was called to perform bucket work on a fire which was a new incident for this pilot and helicopter. The dip site had no personnel to facilitate the bucket work operation. The dip site that was being used was at 3000 feet and the drop site was near the top of the mountain which was 8000 feet. The terrain was extremely steep, rugged and smoky. During the second bucket drop the pilot had to cross a spine ridge and then descend into a bowl for the drop. The pilot crossed the spine ridge at a slow speed. While he was flying in his bubble he saw the bucket bump into a juniper snag and broke off a limb that was very difficult to see and immediately lifted up. There was no damage done to personnel, aircraft or the bucket. The steepness of the terrain, and having to cross higher elevations before descending almost vertically for an effective drop, played tricks with his depth perception. CORRECTIVE ACTION: On initial bucket drops at new locations and particularly in steep and difficult terrain, it would be prudent to increase all altitudes initially and until the drop site has been fully assessed. Ground personnel should always be available, if possible, to work with helicopters giving them feedback on the drops and assessing hazards throughout the operation. UAO Comments: Incident and described corrective actions {above} discussed at AM brief on 8/04 with all base personnel and flight crews.
SAFECOM’s continued......

09-0615: Several airtankers {from different locations} were being dispatched to out-of-state fires around 17:15 PDT on 8/7/09, with the sense of urgency and undue pressure to fly may have been implied, even after several suggestions from the airtanker pilots were made to enhance safety. The airtanker base’s and/or Regions are not relevant, because this happened in several Regions and it involved different GACC’s, local dispatch centers, airtanker bases, and NIFC. This kind of dispatching and pressure to pilots and airbase managers needs to be STOPPED, as SAFETY SHOULD BE OUR NUMBER ONE PRIORITY! Pressuring pilots and airbase managers to be unsafe by hurrying the procedures for out-of-state dispatches and or placing the sense of urgency to fly to an incident or another facility even though it is not efficient, and or cost effective is unacceptable. In yesterday’s situation all pilots and airbases involved replied back through their dispatch centers that flying out early the next morning would be the best option due to weather condition between them and their final destination. The sense of urgency for the airtanker to fly, even though they would have to fly out of the way to get around the poor weather conditions still would not have made their final destination that night. Even after pushing the airtankers to accept the dispatches, the ones that flew last night to their dispatched location landed in time only to be released the next morning. For incident dispatchers that may not be familiar with what takes place for an out of area airtanker dispatch, the following may help to give them a clearer understanding. The airtankers will take on more fuel {could be 1000gls. or less} depending on fuel services at the airport this may take up 20 minutes due to other airplanes receiving fuel first. Airtankers normally only keep about 2 hours to 2 ½ hours of fuel on board to compensate for the load of retardant. {18,000 to 27,000lbs} depending on the aircraft type. They may need to load extra items on board of the aircraft, oil, etc. due to airports along the way may not have the required type and or amount. The airtanker may also have a load of retardant on board due to a previous canceled dispatch and in this circumstance off loading the retardant may take 1-2 hours depending amount in the tank. Pilots must file a flight plan, and check NOTAM’s and weather. CORRECTIVE ACTION: RASM Comments: There is nothing in this narrative that I would disagree with, pilots need to be given sufficient time to plan their flights and need to have their input listened to when it comes to safety of flight issues. This situation and at least one other similar one is being looked in to at the Boise office. In the mean time pilots, whether airtanker, ATGS, Lead or Helicopter, all need to not be bashful about exercising their Pilot in Command authority for turning down a flight that is not safe due to weather or other factors.

09-0613: While conducting a ferry flight for initial attack, the helicopter encountered a fast-moving weather system while crossing the crest of the Cascade Range. Both the pilot and manager were familiar with the route and the plan was to return to the east if the intended route was unsuitable due to low ceiling and/or poor visibility. Upon crossing the crest the manager and pilot deemed the route unsuitable, set the GPS for an Airstrip and attempted to return to the northeast. Unfortunately, the weather system was moving very rapidly and returning was not an option. Due to the poor visibility and surrounding topography the manager and pilot decided to find a safe place to land and wait for the weather to improve. The weather did not improve and the aircraft remained on the ground until 1100 hours. Prior to leaving the base the pilot had completed flight planning, including a FAA weather update regarding the route of travel and alternate route. CORRECTIVE ACTION: While waiting for the weather to clear the pilot and manager conducted an After-Action Review (AAR) focusing on Lessons Learned. The manager should be included in the flight planning and a Go/No Go decision point earlier in the flight may have mitigated the need to land in a remote site. An AAR will be conducted with the Regional HOS. RASM Comment: Getting shut down by weather is not something that can always be predicted, despite the level of planning. What is important here is the Operational Risk Management that took place during the flight and after. Once the flight environment changed to a point where continued flight was not recommended, this crew made the right decision to set down and wait it out. Hindsight is a wonderful thing and there are always things we can do to improve our individual performance or focus areas where we can change outcomes. UAO Comment: Kudos’s to the flight crew for making the correct choice.
09-0580: After takeoff for a jumper mission to a fire, while checking in with dispatch, we realized that air-attack (AA) was also enroute. Our resource order did not show that an AA was being dispatched, although our Spotter/Mission coordinator had been informed by dispatch, during our brief he forgot to mention it to the rest of the flight crew. We knew a type 1 helicopter had been ordered and would be put on hold until we were done with jump ops. We initially tried to contact the AA on the forest air-to-air but were unable so we contacted him on the dispatch frequency and asked him to switch over to the air-to-air. We arrived over the fire at the same time, and after establishing altitudes and separation we began jumper operations. During operations, after about half the jumpers were out the co-pilot who was monitoring 122.8 because of our proximity to the airport heard two SEATs departing which has the same CTAF frequency. Shortly after the co-pilot heard the lead SEAT check in with AA on the air-to-air freq. but did not hear the AA responding. The AA never told us the SEATs were inbound and we didn’t hear if they were given an assigned altitude. This had been done, but not done on the forest air-to-air frequency. We saw the SEATs as they came over the fire, but the lead SEAT never saw us until we established communication with him and we were directly underneath of him. Want to emphasize that due to altitude separation there was not a collision hazard, but due to the communication issues it was not clear to us if the SEATS had been cleared into the FTA. After we saw the SEATS and realized that the AA was transmitting on a different freq {not the forest air-to-air} the co-pilot asked him to make all air communication on the right freq. CORRECTIVE ACTION: FAO comments: As noted, an excellent AAR was conducted as soon as possible, with all appropriate players. Communication issues were the primary issue in this incident. Contributing factors were ATGS on a mission with a platform & pilot with which he had never flown, and a fire location in close proximity to the airport on which all involved aerial resources were based. Discussion underscored the need for all air resources to be on a common frequency, for ATGS to maintain focus on aerial operations when lots of aluminum is crowding a fairly small airspace, and the importance of including ATGS and pilots in pre-season aviation workshop, which will be accomplished next spring. Acting RASM Comments: It is imperative that all aircraft monitor the assigned frequencies for the incident. Resource orders should include the incident Air-Air as well as the Air-Ground frequency.

09-0576: A helitanker landed at the helibase to shut down and hold. At 2045 a sudden storm blew in and a lightning bolt struck the helicopter knocking four men down. The four men were contract employees preparing to tie down the aircraft. Lightning was not active when the helitanker had landed. Dispatch was called and EMS resources dispatched. All four men were transported to the hospital with injuries. One was treated and released, one held overnight at the hospital for observation, and two were flown to a Burn Center. Damage to aircraft is unknown at this time, pending company’s chief mechanic’s arrival. CORRECTIVE ACTION: FAO comments: a Chief’s level investigation was launched on this incident. It appears that the helicopter was not struck by lightning, but an adjacent service/lift truck apparently was. Nonetheless, complete inspection and testing was done on the aircraft, as per the aircraft maintenance manual. Regional AMIs subsequently returned the aircraft to contract availability. The aircraft suffered only minor damage to an ICS circuit. Swift and effective emergency aid response for the injured crewmembers, in which agency dispatch, helitack and smokejumper personnel, as well as local fire and ambulance crews, gave sterling service.

09-0542: The helibase was in operation out of the Airport in support of the XXXXXXX Complex. A TFR was in place when a single engine plane was observed flying at approximately 500ft AGL over the airport. No incident aircraft were flying in the area at the time. CORRECTIVE ACTION: The TFR does not include the airport so there was no intrusion.
09-0560: The pilot was coming in for his 12th bucket of the cycle. At the dip site the bucket only partially filled so the pilot sat the bucket back down in the river to get a full load of water. As he was looking out his left window he noticed debris in the water and realized that he had struck a tree with his rotor blade. The pilot dumped his water, contacted air attack and started back to the helibase. The helicopter was vibrating enough that the pilot decided to land in an open area the highway rather than risk trying to make it back to helibase. CORRECTIVE ACTION: After a debriefing with the pilot, the pilot stated that the dip site had adequate clearance for helicopter operations. The ASGS from the team inspected all dip sites for safety. Dip site managers were in place, but were unable to make contact with the pilot during the event. New communications protocol were established that the pilots will make positive contact with the dip site managers on the first bucket of every cycle. RASM Comment: The event will be investigated as an Incident With Potential. The pilot failed to notice a tree to the right rear of the helicopter. Upon noticing debris in the air and settling on the water at the dip point the pilot realized his blades had contacted a tree. He then emptied the bucket, told Air Attack of the incident and proceeded to the nearest possible landing area to inspect the rotor blades for damage. The dip site communication issues were fixed but had nothing to do with this incident. AMI comments: this helicopter was returned to service by the vendors mechanic, and was returned to contract availability the same day RAMI.

09-0534: During IA of an incident, had a private unknown aircraft Cessna 182 fly into and circle numerous times while Air operations were being conducted. CORRECTIVE ACTION: Submitters Comments: Air Attack notified Dispatch of the aircraft, pulled fire air resources back out of area and attempted to contact and clear private air craft. Unknown aircraft was cleared with no incident and air resources continued fire operations. Dispatch and local airport was never able to confirm aircraft identifier. R5 RASM Comments: Good preventative action taken by the ATGS. There are a lot of other aircraft flying around out there and without a TFR in place, {i.e. I.A} they can go where they wish, even if it does conflict with our operations and not the smartest place to be. Attempting to track down the pilot for educational purposes is good, but flying close to get N numbers or chasing them out of the area isn’t.

09-0528: While flying near a thunderstorm enroute to the helibase off the fire all avionics started malfunctioning. Both of the FM radio screens were flashing, all the lights on the AFF were blinking simultaneously, there was a lot of static, and loud beeping through the helmet. I continued to the helibase, landed and shut down for the afternoon. CORRECTIVE ACTION: After shutting down I noticed that other aircraft continued to fly. Two were extracting personnel off of the fire, which is understandable. Another aircraft continued to do bucket work, which in my opinion should have been postponed. The storm was directly over the fire. I and a few others felt the aircraft doing bucket work was allowed because the fire was close to the line. The urgency of the fire going over the line doesn’t outweigh the safety of the personnel in the aircraft. RASM Comment: I will have the STAT discuss with the IC. UAO Comments: I discussed with the ATGS, ASGS, and HEBM who stated there were thunderstorms in the area, but nothing directly over the fire, and weather was being monitored by the supervising ATGS who stated winds were within acceptable limits, and the pilots decision not to fly was never questioned. This particular aircraft was the only one which experienced any associated avionics problems (glass cockpit technology), which may be a good heads up and something for others to look out for.

09-0529: The first drop of the morning was for dust abatement. After the drop was made a member of the Heli-tack crew noticed an object floating down to earth. A radio call was made to inform the pilot. The flight crew immediately realized that a window sun shade had departed the aircraft. The flight was continued after a determination that flight was safe for the aircraft and ground crew. CORRECTIVE ACTION: Submitters Comments: Cockpit and cargo area was double checked for security of equipment. R5 RASM Comments: Objects departing the aircraft have brought aircraft down in the past, when they have contacted the rotor system. Thorough preflights are a must, it is critical to secure all loose items.