SAFECOM’s by Aircraft Type

For the month of July there were 95 USFS SAFECOM’s submitted, well below the 10 year average of 121. Of the 95 SAFECOM’s reported, 23 were airplane, 10 air-tanker, 4 SEAT, 53 helicopter and 5 N/A. The chart below shows the percentage of SAFECOM’s by aircraft type.

SAFECOM’s by Category

Often there are more than one category assigned to a SAFECOM, resulting in a grand total of more than the total number of SAFECOM’s. There were 4 airspace, 40 hazard, 25 incident, 47 maintenance related, 15 mishap prevention and 7 management SAFECOMs reported for this period. Below is the percent of SAFECOM’s in each category.
SAFECOM’s by Category continued...

AIRSPACE - There were 4 airspace SAFECOMs reported; 1 conflict, 2 intrusions, and one that was procedures and route deviation. The intrusions were with a military C-130 and the other was with general aviation fixed wing aircraft. The conflict occurred at a rural airport with two helicopters landing and having to take evasive action. It can’t be emphasized enough how critical it is to call out positions on unicom while landing and taking off at non-towered airports.

HAZARD - There were 40 hazard events reported. Communications accounted for almost half (18 reports) in this category; several were regarding radios (ground & aircraft) and repeater issues as well as verbal communications and instructions between aircraft and ground resources, air attack and passengers. There were 5 reports of frequency congestion and management issues. Twelve reports had issues with pilot action and policy deviation that consisted of exceeding flight time, low fuel, pilots leaving controls of aircraft, longline issues and dropping without clearing the line.

INCIDENT - There were 25 reports categorized as incidents. There were 7 dropped loads; two were airtankers that jettisoned loads due to weather and the rest were bucket and external loads of which most were human factor issues. There were 8 precautionary landings of which 6 were mechanical and 2 were due to poor communications with aerial supervision. Two dragged loads were reported and two forced landings due to lack of fuel.

MAINTENANCE - There were 47 maintenance related reports. The most reported was electrical issues (10 reports) followed by engine problems (9 reports). Five issues with radios/avionics were reported as well as 5 reported landing gear problems. There were 4 mission equipment deficiencies, 2 hydraulic problems and 2 caution lights.

MANAGEMENT - The seven management reports consisted of managing duty days, helispot naming conventions, longline hook-up procedures, flight following issues in protection area, and coordination between an Incident Management Team and dispatch.

MISHAP PREVENTION - Wow, 15 reports in this category and some great things happening! Lots of reports of great decision making, CRM, aborting missions from pilots and an IC, pilots and mechanics performing thorough pre-flights, developing procedures and determining cause of incident and mitigating from reoccurring. Great job folks, keep up the good work!!!

Branch Perspective

As this fire season continues there is no sign of abatement from the current high level of operational tempo, one that continues to place maximum pressure on our aviation resources. The 2008 fire season was the last time we reached PL5 and while the Western States battle a seemingly endless succession of fires, we see issues regularly being handled by our safety staff across the country. We have experienced three near mid-airs, problems with plastic spheres in aerial ignition, TFR incursions, and several aircraft emergencies, all successfully handled by our excellent pilots and crews. All of these situations generated work for the safety staff and they have demonstrated their professionalism and dedication to resolving these challenges. Good Work!

from Jim Truitt, Acting Branch Chief Aviation Safety Management Systems
These are samplings from the SAFECOM’s submitted for the month of July. We hope you will discuss the lessons learned in your daily briefings. Some of the SAFECOMs have been edited due to length, to read the SAFECOM in its entirety, please click on the link.

**SAFECOM 422:** During landing at a helispot, the left rear passenger was asked if tail rotor was clear. Passenger confirmed, and I lowered the helicopter to set down for landing. After landing, the passenger stated the tail rotor was close to, and may have made contact with the top of a sapling. I shut down the helicopter and noted a nick on the tip of the sapling. I contacted the coordinator and the company mechanic, who contacted FS Regional Aviation maintenance inspector (RAMI). I inspected the tail rotor and associate components as thoroughly as possible in the field and took pictures. No damage was found. I flew solo to airport where I met the company mechanic. Mechanic performed full inspection required per maintenance manual. No damage was found. **CORRECTIVE ACTION:**

**RAMI Comments:** I looked at the pictures of the tail rotor blades and the bush struck in the landing zone. No damage to blades and the bush was quite small, less than pencil sized. The maintenance Manual contains criteria for what the manufacture calls a blade strike and this incident does not meet the criteria. The mechanic did an inspection of the tail rotor blades, tail rotor gear box mounting bolts, Thomas couplings T/R to main gear box, All the bearing on the drive shafts and also looked for popped rivets on the tail boom. He didn’t find any damage on the aircraft or any of the components listed above. **HOS Comments:** In the follow-up to this event, the crew conducted an AAR to understand and ascertain the factors that contributed/caused the rotor strike to occur. It appears that the aircraft upon landing settled back due to surface conditions and a slight slope in the terrain and nipped the top 6-inches of a lodgepole sapling. Knowing this, the crew leadership reviewed their SOP’s when landing at unimproved landing areas and established additional protocols to mitigate hazards in order to prevent a repeat of this event. Communication from the crew and crew leadership with the Regional Aviation Group was timely and helped facilitate a prompt response and action.

**SAFECOM 434:** Two helicopters departed Helibase approx. 10 min apart. First an A-Star, followed by a Bell 407 approx. ten minutes later, both en-route back to airport for the night (unstaffed rural airport). The Bell 407 made an inbound call 10 miles out, then 5 miles out, and heard no response from any other aircraft. When the Bell 407 was about make a call 1/2 mile out, he heard the A-Star make his 1/2 mile out position call for landing. The Bell 407 immediately made his 1/2 mi call, then switched to the victor and asked the A-Star to report his location. The A-Star responded on the victor: “breaking left”. The Bell 407 responded “breaking right”. After the separation maneuvers, the Bell 407 that broke right initiated his right hand turn in, looked out his left side and noticed the A-Star at a distance, heading in the opposite direction. The Bell 407 never saw the A-Star until after they had completed evasive maneuvers. It was determined (by the Bell 407 pilot) that the A-Star was most likely below and in front of him due to the timing and pattern he had flown during this incident. No issue to either pilot or aircraft occurred. Both landed safely shortly after. **CORRECTIVE ACTION:** The pilot of the Bell 407 as well as the Helicopter Managers, discussed the issue in depth and were most concerned about the “no Call Out” from the A-Star in a rural airport situation. The separation of the two aircraft was probably well beyond the 500” distance of a close call but still was a dramatic event for both pilots. **FAO comments:** Sounds familiar (Ruidoso,NM 2012) Will facilitate follow up.

**SAFECOM 528:** During a fire retardant drop sequence a firefighter on the ground observed a silver round object fall out of the aircraft and hit the ground with a metallic sound and bounce down the slope. He reported this to the FAO who shared it with the ATBM and aircrew. It was determined that the float ball was missing inside the tank of the SEAT. The float ball indicates the level of retardant to ground personnel during loading operations. See photo attached. During discussions with ground and aviation personnel it was emphasized how important it is to clear the line during retardant drops. **CORRECTIVE ACTION:** RASM Comments: Great reason not to be under airplanes or helicopters during incidents whether it is tank floats, water, or toilet ice it is painful if you are in the drop zone.
SAFECOM 475: Helicopter was dispatched to an initial attack fire. A full brush response was ordered with an addition of local cooperator helicopters. This fire was on FS Jurisdiction with FS frequencies assigned. Flight following was established on National Flight Follow with the ECC. The pilot made several blind call outs on the victor while the HMGB tried to establish communications with the incident. There was no radio traffic on any frequency (victor or A/G) and the helicopter prepared to be the first aircraft on scene. An ATGS was ordered but had a delayed response. After arriving on scene we observed 3 cooperator helicopters actively dropping over the incident. In addition, a tanker had been diverted to the fire and was orbiting (low level) without a lead plane. At this point the fire was 10 acres and all forward progression of the fire had stopped. The water source was close proximity and although it could accommodate the amount of rotor aircraft assigned, the air space above the fire could not. It was decided that the helicopter could not safely enter the airspace, so to avoid other aircraft and tankers the helicopter stayed high level. Communications were established with the incident however after several attempts by the HMGB, they could not be maintained. The helicopter could not gain communications with any of the other aircraft on any assigned incident frequency. Once the lead plane came on scene, we did establish communications however, even the lead plane had issues trying to establish communications with the other resources. The IC had requested a tanker drop but due to the lack of communication and aerial supervision the mutual aid helicopters continued to work in the fire area as the tanker lined up for its drop. It was at this point that both the pilot and HMGB decided that it was unsafe to engage and to leave the fire area. We decided to land until communications were established, the tanker had completed its drop and aerial supervision was overhead to de-conflict the air space. Once the helicopter had established communication with dispatch, the safety concerns were expressed over the command frequency and they landed at a FS approved helispot. The helicopter stayed spooled to continue trying to establish communications on the victor. The HECM’s exited the aircraft and performed parking tender duties. We turned on our handheld radio and heard several aircraft, including air attack, talking on NIFC Tac 2. The cooperators and other ground resources were talking on the cooperator’s department frequencies. Even after air attack was over the incident, there was a delay in supervision because the ATGS had the wrong incident frequencies. Communications were eventually established with cooperators, but was not maintained. Aircraft working the fire were not making calls in/out of dip, in/out of drop, establishing communications with ground resources or communicating with other aircraft. The helicopter remained on the ground for approximately 45 min before safety concerns were addressed and remedied. The helicopter finally re-engaged on the fire and was asked to perform bucket drops on DIV A, but DIV A did not respond to radio calls from the IA Helicopter. CORRECTIVE ACTION: The FAO was notified of incident and notified co-operators. The helicopter held numerous AAR’s which included dispatch, the ATGS, the helicopter crew and contractors. Dispatch expressed that this has been a consistent issue and vowed to assist by calling our cooperators via intercom and phone to ensure they are aware of FS frequencies. ATGS was in support of the actions taken by the helicopter to disengage the fire and will verify frequencies on aircraft dispatch form in the future. The helicopter will also give a courtesy call on cooperator frequency when entering on to a fire with cooperating aircraft on future initial attacks. The helicopter will continue to use the assigned incident frequencies as per FS policy. We also hope to bring up these issues in a scheduled meeting with our cooperator on 7/23. Grounding (disengaging from the fire) the aircraft will continue to be the corrective action in any unsafe aviation environment. RASM Comments: This fire was in the mutual aide zone and was not determined to be an FS fire until the IC was on scene and made the determination. I spoke with our cooperators, all aircraft were monitoring their IA frequencies as well as our IA frequencies for both Victor and A/G, in addition they were both monitoring Air guard. This was a typical IA with multiple air resources responding in a short period of time. The radios were congested and one issue was the lead was dropping the airtanker on rotor victor instead of FM Air Tactics. The helicopter did the right thing as they could not get positive communication with any of the air resources due to congested radio traffic. Lessons Learned: Do not enter the FTA without positive communication, utilize Air guard when communication cannot be made; during mutual aide IA be flexible and be prepared to make communication on our cooperators frequencies, we need to ensure that out of region resources understand that we utilize FM Air Tactics for airtanker operations and lastly all persons involved in the incident should be included in the AAR (Cooperators and Lead).

SAFECOM 572: Tanker was dispatched to fire at approx. 1545. While ferrying to the fire, crossing the mountains, the tanker encountered divergent winds (3 peaks with steep valley walls) and excessive smoke with sinking air. Tanker pilot jettisoned load. CORRECTIVE ACTION: Be aware of drastic wind shifts in high terrain and unexpected smoke conditions. RASM comments: Ensure proper mission planning is conducted prior to departure.
SAFECOM 458: While assigned to the fire, air attack requested that we preposition the aircraft from the XXX Helibase to the YYY Heliport. Upon landing, the pilot noticed what looked like a paper plate, got blown into the air from the rotor wash. The object made contact with the main rotor blade and then got blown off of the pad. After shutting the helicopter down, we were able to find pieces of the object about 50 feet from the pad. The object turned out to be a Frisbee. **CORRECTIVE ACTION:** After inspection of the rotor, there was ruminant’s of a plastic film that was left by the Frisbee. Pilot/Mechanic removed the plastic film with a paper towel and water. Pilot/Mechanic inspected the rotor and determined there was no structural damage done and there was no need to make the aircraft unavailable. RASM and RAMI were both contacted. RASM: When forests are going to utilize heliports that are not operational year round its important that that these heliports are checked for FOB as necessary.

SAFECOM 466: On starting the left engine, the PIC and ATGS both could hear an unfamiliar noise emitting from engine. PIC and ATGS checked gauges, all showed normal but odd noise continued. PIC shut down engine. Upon inspection of left engine nacelle PIC discovered a rag in the left forward engine compartment. PIC called company mechanic to examine engine. ATGS called regional aircraft inspector. **CORRECTIVE ACTION:** Regional aircraft inspector directed company mechanic in an engine inspection to determine cause of noise, or factors that could contribute. Mechanic performed inspection, made log book entry. Regional aircraft inspector put A/C back in service. AMI COMMENTS: Thanks to the ATGS for the call to give first hand account. Mechanic was very cooperative and interested in determining the cause. A 50 hr inspection was accomplished approximately 10 hrs prior. I discussed the rag left behind but we could not determine it was related to the unusual noise. Discussed work/travel hours and fatigue issues prior to the inspection. Also discussed W&B with ATGS involving high DA and any unaccounted for equipment in the baggage bay, (referencing previous mishap).

SAFECOM 494: After delivering 2 firefighters to the fire the pilot and manager flew to a nearby dip site to reconfigure for bucket work. The pilot delivered one bucket of water to the fire and after 20 min., returned to the dip for a 2nd bucket of water. After climbing out of the dip the pilot initiated a wide left hand turn to try and gain better control of the load. As the pilot passed by the dip site he mentioned that he had approximately 200 lbs. of fuel remaining. At that point the HMGB suggested that the pilot empty his bucket, land, pick him up, and return for fuel. The pilot agreed and continued his wide left turn away from the dip. The HMGB concluded that the pilot needed to continue to regain control of load or was setting up for a different landing approach due to variable winds. After a few minutes elapsed the HMGB realized that the pilot must be returning to the fire to deliver the 2nd bucket of water. At this point it was unclear to the HMGB how urgent the fuel situation was. After the pilot returned to the dip the HMGB loaded the aircraft and boarded the ship for their home base. While enroute the pilot mentioned that they were getting low on fuel and inquired about landing sites between the dip and their base. The HMGB suggested a site 9 miles away and after 2 miles the pilot decided to set the aircraft down ASAP. A large field next to a nearby road was utilized and the fuel truck was ordered. The Aircraft landed 23 miles short of their base with close to the reserve amount of fuel on board. **CORRECTIVE ACTION:** The pilot was reminded to allow adequate time for post mission return flights and the HMGB was reminded to clearly confirm mission priorities especially with pilots who are less experienced with fire operations. The Regional Helicopter Staff is gathering additional facts concerning this event.

SAFECOM 513: During lineup for a drop the tanker jettisoned the load when he encountered ‘down air’ and lost altitude and airspeed. The tanker was able to proceed straight ahead well clear of terrain and leave the fire area after jettisoning the load to return for another load. Tanker was on ‘base to final’ behind a bravo unit. Tankers continued to make drops before and after the jettison successfully under the direction of Bravo and Lead Aircraft. **CORRECTIVE ACTION:** RASM Comments: Kudos for excellent aeronautical decision making on part of the crew and refusing to attempt to salvage a non stabilized approach to the target. Discussion with Bravo unit also supported pilots call. Incident at the time was at the edge of a cold front and winds and vertical currents were changing during approaches so no consistency on when aircraft may encounter adverse conditions. Air attack reported load dropped high enough not to create hazards. Bravo unit and Air tanker held an AAR on the mission. Excellent work by the whole team especially the flight crew in maintaining safe flight conditions.
SAFECOM 490: During the second load of rappel proficiency’s, I had de-rigged the right side rope and cleared it when I was reaching back and pulling the door shut when my right shoulder brushed and dislodged the shoulder belt inertia reel cover which is located on the front facing right side post. The cover then fell to the ground (I visually saw the cover fall straight down and to the ground). Pilot was notified once cover fell and there was no incident due to the dislodged cover. CORRECTIVE ACTION: Due to the mechanics of shutting the right side door there appears to be only two options: 1. First, would be to reach out of the aircraft with the left arm/hand back to the door handle which would put the spotter back out of the aircraft. 2. Second, to reach back to the door with the left arm/hand and while pulling the door shut: insure that the spotter keeps their torso and arm low enough to not touch or brush against the post. With the approval of the new cargo restraints and net I believe one option to greatly minimize exposure to such an incident and maximize space to the spotter would be to remove the post/net and utilize the approved restraints systems.

SAFECOM 554: At 2105 the Helibase received a mission request for a medical transport. The fire doesn’t have any road access and the fire is completely supported by aircraft. Helibase manager sent a Helicopter (evacuation helicopter) with manager and EMT to H-50 for retrieval of the patient. The medical unit leader heard the vitals and symptoms from the EMT and decided to treat the transport like a medevac. Life flight was ordered to rendezvous at the Helibase. The evacuation helicopter arrived back at the Helibase at 2135 and broke his duty day by 5 minutes. The ship was on the ground 12 minutes before pumpkin time. The transfer of care to Life Flight went very well. The only problem that occurred was making contact with life flight. The Team was using A/G secondary for any Life Flight involvement. Then after awhile we tried Air Guard. There was still no contact. We went to the EMS channel and that worked great. CORRECTIVE ACTION: I adjusted the start time for the pilot the following day. The pilot received his 10 hrs of rest. I hope that the new EMS frequency will be utilized more often, since it seems to work great when working with Life Flight. FAO: I received a phone call from the Director of Operations for the medivac contract helos. The pilots are not able to program the radios in-flight and don’t have the forest frequencies pre-programmed. They do have EMS-2 (155.280) in all their radios and prefer to use that for commo. This information would have been given to the incident but they did not go through Dispatch, rather they called the hospital direct and ordered the Life Flight. Make sure that any future Medevacs involving Life Flight get routed through Dispatch to prevent commo problems. RASM Comments: Great point out by the FAO on the commo piece. Full disclosure of the pilot breaking his duty day by 5 min is commendable and appreciated. Policy states: `Flight time must not exceed a total of 8 hrs per duty day.` However, context is important. There is a difference between `planned or scheduled` and `execution`. Industry best practices mirror our policy, but provide amplifying guidance for those situations where it appears the 8 hr limit may be reached. What we don’t want to see is poor judgment when a pilot realizes that due to weather avoidance, unexpected head winds, ATC vectoring, or whatever, he/she pushes even harder to be on the ground to meet the 8 hrs. We always, always should `plan` not to exceed 8 hrs: but unanticipated circumstances sometimes result in `execution` longer than 8 hrs. In that case, do as this pilot did, and disclose. Use the AAR to learn where more padding could be built in next time. Kudos.

SAFECOM 532: An IHC was engaged in line construction in DIV P when an unidentified helicopter approached the area the crew was working and made 2 drops in very close proximity to the crew. There was no contact from air resources. The next day at 1830 the IHC was building line in a high density snag location in Div M when a helicopter approached the area the crew was working in and made a drop with no ground contact. Approximately 5 minutes later another drop was made with no ground contact. An attempt was made to call the helicopter off the drop, but there was no answer. The drop was within 100 feet of several crewmembers working 100 timber. CORRECTIVE ACTION: Air attack was called and we made him aware of personnel on the ground and the need to establish a ground contact before engaging in bucket operations. AA said he had told the helicopter to make the drops and did not make use of a ground contact. An AAR with DIV M and operations occurred and the decision to file a SAFECOM was made. RASM: This emphasizes and reinforces our SOP of asking, `is the line clear?` The pilot should back up ATGS by querying about ground personnel. It’s unfortunate that it wasn’t fixed after the first occurrence... we were lucky. Helo managers: please take note.
SAFECOM’s continued......

SAFECOM 605: A sling-spot was chosen for the delivery of blivets in a location 150 feet up-slope of the fire. Approximately 10 trees were felled to open the canopy. The opening in the canopy was about 75’x75’ on a 50-60 degree slope. The tallest trees in the area of the blivet site were approximately 100’. A bench approximately 4’x20’ was cut into the slope to accommodate the blivets. I informed the IC that the helicopter would need a 150’ long line and swivels for each load. I also stated that I would prefer to have the blivets flown in one at a time to position them correctly. We also requested a net and swivel for back haul. When the IC placed the order all of my requests were relayed to dispatch, but the IC chose to request a 200’ long line. As the helicopter flew in the first time to drop off the net and swivel it was radioed to me from the Helispot Manager that I needed to attach the swivel back onto the hook so it could be used in the blivet mission. We were informed that there were not enough swivels for each load and that we would have to re-hook the swivel after every load. This information was relayed to the pilot as well. Upon visual contact with the helicopter we could see that he had a 100’ long line. We confirmed with the pilot that he had a 100’ long line and notified him that we initially had requested a longer line. The pilot stated that he would have to go back for more line and wanted to try to drop the net off first and see how the spot felt to him. After dropping the net off, we reattached the swivel and the pilot stated he was fine with the spot. I was the qualified HECM on scene and had a trainee. We both felt that the pilot was too close to the canopy, but decided to let the pilot use his discretion. Upon return with the first blivet the pilot dropped the blivet off, but did not wait for us to reattach the swivel. The HECM trainee notified the pilot that we would like a swivel on every load and his response was that his belly hook could rotate and a swivel was not necessary. The pilot then stated that he only had enough fuel to deliver 4 of the 5 blivets. It was decided that due to our concern of the helicopters proximity to the canopy we were going to let the pilot finish the mission as he saw fit. The remaining blivets were delivered without incident. Having completed the entire mission the pilot commented that the blivet delivery site was not ideal in his eyes. CORRECTIVE ACTION: An AAR of the fire was conducted back at our home unit with members of the crew, supervisors and our pilot. During the discussion the IHOG was referenced confirming that a swivel is required for every external load flown. We also discussed the fact that we had the authority to stop the mission once we saw the aircraft did not have the length of long line we felt was adequate. There was also discussion of how getting mission driven can blur the decision making process for all parties involved. I contacted the pilots’ home unit and spoke with a supervisor about the blivet mission. He relayed to me that the information about the length of the long line needed had not been relayed by dispatch. UAO Comments: An AAR occurred during the AM brief at the base where the pilot and helicopter providing the support are based. In addition to discussing the decision making factors, it was noted that information related to ‘‘who was responsible to supply the swivels’’ - the district supplying the blivets, or the helicopter crew mobilized to support the cargo transport was assumed by both parties, resulting in fewer swivels than was needed to efficiently conduct the mission. Also noteworthy is that the recommended line length could have been given more emphasis when communicated through dispatch channels. RASM Comment: Don’t forget that the pilot works for us. Several times it was stated in this SAFECOM that people were uncomfortable with how the pilot was preforming the mission: length of the long line, not using a swivel, and pilot’s attitude about the mission. Next time stop the mission and correct what you know is wrong. The pilot is the final authority on flying the aircraft safely. The pilot cannot be the final authority on conducting the mission within our Agency’s policies and requirements. HOS Comment: Good follow-up with the crew AAR and reinforcing the shared responsibility to correct or stop a mission when a safe environment is not provided. Some of the same circumstances that occurred in this event mirror two fatal accidents that occurred in 2004 and 2007 during longline operations. Ground personnel and pilots need to actively communicate concerns regarding proximity of aerial hazards, longline length, and placement of cargo. Mission success and safety is a joint venture that requires active participation and sharing of information to reach good decisions.

SAFECOM 566: Mission was a Prof. Rappel for Boosters. The right side rappeller of the second stick deviated from sequence. The individual ‘‘Locked Off’’ before ‘‘Hooking Up’’. He did ‘‘hook up’’ after ‘‘Locking Off’’ and then presented to the spotter. Spotter was watching the left side rappeller and noticed the deviation with peripheral vision. Upon reaching the right side rappeller, the spotter discontinued the prof. Rappellers seat belted up, Decent devices removed, ropes dropped, doors closed, returned to base and shut down. CORRECTIVE ACTION: AAR was conducted with the stick of rappellers and spotter. A mock-up was then completed without procedural error. A prof. rappel was completed without error. RASM: Concise write-up. Additional training was appropriate. Exceptional professionalism and safety culture... Rappellers leading the way!
SAFECOM 533: After dropping water on and returning to the dip, the Helitanker we were operating came nose to nose with a lead plane. Lead plane pilot came on the Rotor frequency and said "Crane coming off the hill turn left, you are in our pattern." We initiated a descending left turn. We can state that we came uncomfortably close. We picked up one more tank of water from the dipsite and proceeded back up to the fire. Looking to my left I could see the lead plane followed by two tankers and was unsure of their intended flight pattern or descending altitudes. We, as a Helitanker Crew decided to abort the mission due to our lack of knowledge of their pattern and altitudes. We tried to contact the Helicopter twice without success before contacting air attack to state our decision to abort further drops until after the fixed wing Tankers were completed. Prior to this event, the Helicopter had relayed to all Helitankers working the fire, that we could continue operations by moving our pattern from west of the Peak to east of the Peak as tankers were setting up for drops. This information was taken to mean that this was 'the fence' No ceilings or hard deck altitudes were mentioned. Additionally, we were not requested to hold while fixed wing tankers were on scene. I assume this info came from the Lead Plane Pilot relayed, to air attack, relayed to Helicopter and on to us. My pattern was adjusted as requested from Helicopter. However, if the assumption from lead for us to adjust our descending altitudes which was well established at this time was not received. Nor did we receive information that the downwind pattern for the fixed wing would possibly be a conflict with our operations. Other notes: We were descending off the gap east of the Peak giving way to the two fire Hawk Helicopters and other S-64 Helicopter working downhill and slightly east. If we were given information that the downwind leg of the fixed wing would be east of the Peak instead of west we could see that further adjustment was necessary. Had we been queried about our altitudes requirements of our operations in Div K perhaps The Lead Plane Pilot would have realized a conflict. This was not requested from the Lead Plane. What went right: see and avoid from us and quick communication from the lead plane on the Rotor frequency. What went wrong: lack of communication, split frequencies between fixed wing and helicopters working in congested airspace. **CORRECTIVE ACTION:** For the corrective action Manager was notified of problem, manager then put helicopter on a hold until a face to face discussion was held with Helibase manager - trainee, Helibase manager, both pilot’s and Helicopter Manager. Problem was addressed about lack of communication and multiple aircraft working in tight air space. RASM comments: This occurred during an ATGS transition, any transition is going to be a vulnerable time for operations. I spoke to all parties involved and at no time did any aircraft have to take evasive action to avoid each other. The helicopter made a good risk management decision by aborting the mission until communications where clear and understood. This was a complex air operations, with 22 helicopters assigned and multiple airtankers, frequency congestion due to only having 1 A/G. Regardless we need to remain vigilant and ensure that communications and clear direction is given and understood and if in doubt to not engage, good job on the helicopter part.

SAFECOM 477: Helicopter was reassigned to another incident, after our first fuel stop we were approximately 36 miles from the airport. Our pilot asked if anything was underneath the pedals on the left seat. I stated no there wasn't and he commented that the "pedals felt heavy". He immediately made the decision to land and made a precautionary landing in the desert on the side of the road and shut down the aircraft. Prior to landing we were flight following with Dispatch on NFF. After landing we were unable to contact dispatch on NFF and did not have the local repeater frequency of the area we were transitioning through. Once on the ground we were in a remote area with no cell coverage and no radio contact. After repeated attempts to make contact the pilot utilized the Victor Air Guard frequency of 121.50. He told me that all Airliners monitor that frequency. He made contact with an Airliner and relayed our position and phone number of dispatch to the FAA tower in Salt Lake City. The information was received and help was on the way. The pilot determined that the aircraft was airworthy to fly back to the airport, but the crew was transported by truck from the local area unit. **CORRECTIVE ACTION:** The mechanic found that the connection for the Left Cyclic Cannon Plug was loose. He took apart, cleaned and put the plug back together. Calls where made to the Aviation Safety Manager and the Aviation Maintenance Program Manager. He then put back the aircraft into contract availability after a test flight of the controls was conducted and a copy of the maintenance log sheet emailed and reviewed. The pilot acted professionally and made safety the highest priority in this event. He did a good job in thinking to use the VHFRadio to contact an Airliner in our remote landing area. For myself I will ask more questions to dispatch on getting repeater frequencies and tones of areas of transition or get copies of frequencies emailed or faxed before departure and not to solely rely on NFF and what the resource order states in unfamiliar areas. AMI: Well-orchestrated recovery, the maintenance team with the support trailer was diverted to the helicopter location by the company. Good call by the pilot to fly the aircraft alone to the airport as USFS personnel would not be authorized to be on board.
SAFECOM 493: This Incident occurred while working on the fire and is written from the pilots perspective. First shift on the fire, I received an order for bucket work on DIV A from Air Attack. All belly hook and bucket checks were performed satisfactorily before departing the helibase. I flew to the dip, got a full bucket, and released to check operation, and the bucket was operational. After refilling the bucket I flew to DIV A and made contact with the ground crew. I was directed to a line drop in the green along a road, West flank of the fire. After maneuvering to avoid overflying trucks and personnel I reached the panel and went to dump the bucket. I inadvertently hit the belly hook release instead. The bucket and longline fell to the ground near the panel and away from personnel on the ground. External factors were distraction from the extremely busy FM and AM radio communications on the emerging incident & a congested drop zone. In hindsight I should have made a first pass and gone around to reduce my work load. Upon returning to the Helibase, we inspected the Bambi Bucket and 100 ft. longline and the belly of the aircraft for damage. The bucket split down the length of one side completely and the inner stays were also broken. The bucket power head was not damaged. The longline was intact and the quick release plug came apart at the wire housing and plug. The belly of the aircraft did not sustain any damage. CORRECTIVE ACTION: The crew and pilot conducted an AAR of the incident and discussed the contributing factors. The main factors as mentioned above were: the local factors encountered on the first shift of an emerging incident, the relief pilots first shift of bucket work after a two week break, and pilot error. After notifying the Helibase manager first, we contacted the local FAO and COR. The FAO corresponded with RASM and instructed us to follow proper procedures and return the ship to service with the additional bucket. FAO Comments - Helicopter Manager contacted me immediately after incident occurred. Contacted RASM and agreed to have helitack crew and pilot debrief the incident before returning to work. No other issues at this time. RASM Comments: RASM and HIP visited with the pilot at incident. A contributing factor was standardization of controls the pilot spent most time flying a left hand drive ship and this one was configured for right hand drive. The bucket gate open/close switch was positioned on the cyclic near the cargo hook release switch instead of the collective as specified in contract language C4 (19). Maintenance crew reported to helibase and changed switch location to collective as required in contract and RAMI returned ship to contract availability. A major factor here is that the contract requirement was missed numerous times resulting in an unmitigated human factors engineering hazard which has been corrected. Recommend checking all aircraft for this requirement during quality assurance visits.

SAFECOM 579: After rappel operations, I moved into cargo. After rigging cargo we moved into the site and set up for deployment. Once the cargo was going down the skid the 5 gallon cubee slide to the side and split the skid and hung up the cargo. At that time I notified the pilot of the problem locked off the letdown line and started trouble shooting. When I reached down to pick up the 5 gal, I was just a few inches shy of being able to grab it. I thought about cutting the load away, extending the spotter tether, or possibly an offsite landing to clear the problem. CORRECTIVE ACTION: After considering that we were in a good hover and had good power, I decided that I would extend the spotter tether. I told the pilot what I was doing to clear the problem and he agreed. I then reached down and grabbed the 5 gal container and lifted it over the skid to the outside. Once the problem was fixed I communicated to the pilot that the cargo was clear and I was ready to continue the letdown. The rest of the operation was completed with no incident. UAO Comment: Good awareness and CRM by the spotter. Reporting even the little things can make for a better program. Thank You for your report. No further action required.

SAFECOM 576: As the helicopter was coming into the drop, glare from the sun obstructed the pilot’s vision causing the bucket to come into contact with the top ten feet of a snag tearing a 4 inch hole in the bucket. The snag was in the 12 o’clock position. The water was released immediately after contact with the snag and the ship returned to helibase. CORRECTIVE ACTION: The pilot plans to give himself more altitude in the future when doing bucket/longline work. RASM Comment: Dealing with environmental issues such as the sun obstructing hazards is part of the long line challenge. It is always best to have extra altitude when environmental issues are encountered. UAO comments: Proper notifications were made although could have been more timely. The incident’s Unit Management was contacted and requested to ensure all dip-sites have dip-site management in place to assist pilots with hazard recognition.
SAFECOM 547: On July 19th the Pilot in Command asked us to set the bucket to 70%. On July 20th I was asked by the new pilot to adjust the bucket to a higher setting. Upon inspection of the bucket I noticed that the keeper gate on the bucket had bent around to the other side, failing to hold the triangular ring setting at 70%. The cinch strap had fed back through several of the metal braces, bringing the capacity to a higher setting than desired by the pilot. Pilot made no mention of weight difference during operations at the end of his duty day. **CORRECTIVE ACTION:** Helitack personnel fed the cinch strap back through the metal braces and re-adjusted the keeper gate and taped it so that in the future the keeper gate can’t come unhooked. Personnel have been inspecting the bucket after operations ensuring that it is staying at the correct setting. AHOS- This illustrates the importance of our helitack crews performing a visual inspection on the buckets during fuel stops and after use. FAO - Good example of what the SAFECOM was meant for. Maybe something to bring to the manufacturer’s attention (Is there a MOD to keep strap in place?). I will pass this on to our local Helitack crews. RASM Comments: Good example of why we do SAFECOM’s... others will surely learn from this one. I’d encourage the helitack community to consider adding visual bucket inspections during fuel stops and post flight into their SOP’s.

SAFECOM 469: On 7/8 a helicopter was on a repeater site recon mission. As we approached an out of ground landing site at 8400’ the helicopter started making a loud buzzing sound. The aircraft also starting vibrating and the landing was cancelled. The pilot asked me if I could hear the buzzing noise and I replied “yes, I hear it and I can feel a pretty good vibration”. We decided to return to base, as we were in flight to the helibase I monitored the buzzing and vibration and it appeared to subside as we descended in elevation. As we started transitioning for landing the buzzing noise and vibration surfaced and continued until the aircraft was powered down. Once we landed the pilot reported to the manager that he felt and herd something wrong and the aircraft was taken out of service. The proper notifications were made and the vendors began to trouble shoot the problem. The buzzing was isolated and determined to be coming from the hydraulic servo actuator. This was pinpointed by the helicopter being run up and audio and video recordings being recorded and sent to Bell. During the recording the pilot shut off the hydraulic switch and the noise and vibration subsided. **CORRECTIVE ACTION:** Based on the video and audio recordings and discussions with Bell it was determined that the hydraulic servo actuator was faulted and needed to be replaced. The vendor’s ordered the new actuator and it arrived on 7/11 and was installed. On 7/12 the helicopter was taken for a test flight and the buzzing and vibration was no longer present. The COR called the maintenance inspector and the aircraft was put back into available status. If you hear or feel something that doesn’t seem right, say something.

SAFECOM 583: During flight, the helicopter pilot noticed fuel gauge indication was low and fuel light was on. Pilot found a safe place to land approximately 2 miles outside of the Helibase. Pilot felt it was the safe thing to do rather than to continue flight to helibase. Pilot called manager to have the fuel truck bring him fuel. Once the Fuel truck refueled the aircraft, it returned to Helibase. The Regional Aviation Maintenance Inspector was notified. The helicopter mechanic inspected the fuel gauge and confirmed nothing was wrong with fuel gauge. The Fuel Truck driver informed the pilot he put 1200 pounds of fuel in the aircraft, but the pilot misunderstood and thought that 1400 pounds of fuel was put in the aircraft. Once pilot noticed the fuel gauge drop he thought there was something wrong with the gauge and also felt it was best to land the helicopter. When supporting the IA incident with bucket work, the pilot was requested to shut down the aircraft at a remote helispot to hook up his bucket: due to agency regulations about over flying populated areas with longline/bucket when leaving the airport. The pilot did not use proper agency safety procedures to hook up the bucket for the aircraft had rotor turning while attaching the bucket. Pilot stayed within rotor circle to hook up bucket. **CORRECTIVE ACTION:** The agency needs to have helitack at the offsite location to hook up the bucket when the situation exists to attach a bucket at a helispot. The pilot stood down until the Regional Inspector Pilot was able to talk with the pilot to discuss the incident, and safety procedures. Pilot was returned to flight duties after discussion at noon next day. UAO comments: Having helitack to assist in bucket connection and dis-connection reduces workload on pilot and the ability to manage fuel. Local unit did initially establish helitack assistance with local cooperator at a helispot near the fire but plans changed and the personnel never arrived to assist. Helibase and helicopter manager was not advised of this change of plans until after the fuel incident. Fire incident established further operational helispots to assist in the continued operation. External load concerns from this permanent helibase/airport still exist and have been an operational problem that needs to be specifically addressed with the FAA.
SAFECOM 611: The jump plane had just started both engines for a patrol flight on the forest. The pilot noticed the “door ajar” light on. The pilot and spotters checked all the accessible doors and light was still on. Pilot asked front seat spotter (who is a licensed pilot) to guard the controls. The pilot shut down the left engine and exited the aircraft to check the external doors. All doors were latched and the light was still on. Pilot determined there was no hazard to safe flight. The left engine was restarted and as soon as the aircraft began taxi the light went out. CORRECTIVE ACTION: Upon return to McCall, the mission was reviewed with the pilot. Any future need to exit the aircraft will require full shut-down of both engines before the only qualified and type-rated pilot exits the aircraft. The other option would be to have a qualified ramp personnel check the aircraft doors for the pilot, with the left engine shut down. FAO & RASM Comments: No Further Action Required.

SAFECOM 550: We were flying an ATGS mission and returning to airport for fuel. I was the ATGS trainer in the back seat and had a trainee ATGS in front right seat. While flying base leg for landing runway 30, I heard announced over unicom an aircraft’s intent to take runway 12 for takeoff. As we started to turn on to final for runway 30, I stated to our pilot that this was opposite our landing and as we turned on to final, I could see a yellow crop duster taking the field on the same runway we intended to land and opposite to our direction. I told the pilot I could see him opposite us and to abort landing and break to the right so we could keep an eye on the crop duster. I was still worried he would take off and break out to the left and towards us, although we were cleaning up flaps and gear and climbing and thus vertical separation would be good if he intersected us. Upon seeing us abort landing, the crop duster communicated and apologized twice and stated he had his radio volume turned down. It should be noted that our pilot made the proper statements/calls of intention over unicom at 10 miles from the airport, upon entering a downwind for runway 30, upon turning on to base and upon turning base to final. CORRECTIVE ACTION: Acting RASM Comments: Excellent use of Crew Resource Management (CRM)! Good job of communicating the concerns just in case the pilot did not pick up the commo. KUDOS! Thanks for sharing this information so that others may learn from the experience! UAO Comments: Ag operations in close proximity to this airport, and based from this airport, is a regular occurrence during fire season. Good illustration of why non-towered airport traffic procedures need to be emphasized during briefs, and also how aircrew members can assist pilots in identifying potential conflicts (CRM).

SAFECOM 535: Helicopter-XXX was dispatched to the fire to drop water on the fire. After making contact with the fires IC we found a place to set down and hook up the bucket. The pilot made one drop, but after the second attempt he returned to the manager’s location and requested that I cinch up the bucket to 70%. This was done, and I eventually observed the aircraft flying to the fire with water. The subsequent radio traffic, as the pilot attempted to make his drop, indicated some confusion and concern as to the placement of the drop. The pilot requested that someone on the ground let him know the proper release point. The ground forces declined to do that. Seconds later the pilot apparently hit the release button for the bucket. The bucket landed in the vicinity of the fire. No ground forces were effected. Examination of the bucket showed that the bucket was blown out, indicating that it hit the ground full. After talking with the pilot and the owner who was driving the fuel truck, the pilot concluded that it was his fault and not a mechanical failure. CORRECTIVE ACTION: HIP: Discussed with the pilot involved and with the owner/chief pilot. Pilot readily accepts full responsibility, no mechanical failure. At the time, there was significant discussion on radio regarding exact water drop placement. Pilot sees in retrospect he spent too much time on radio and trying to pin down exact drop spot, should have gone around or orbited until radio comms were completed. He simply selected the wrong control at a busy moment, dropped bucket vice water. No further steps recommended. RASM: No further action required.

SAFECOM 592: During the pre-use inspection we found an inconsistency in equipped weight between section B and recent modifications in the contract, and the actual weight in Chart C. The contract indicates a weight of 11,911 lbs. Chart C indicates a current weight of 12,309 lbs. The helicopter is fitted with an external tank weighing 792 pounds not specifically requested in the resource order. CORRECTIVE ACTION: Notified the AMI and the CO late in the afternoon yesterday and after consultation with the COR and CO this morning, the vendor was advised to remove the external tank from the aircraft. Local UAO comments: Good work by the Manager who initially inspected the aircraft! Proper notifications were made in a timely manner. AMI and CO are addressing the issue.
SAFECOM 580: Aircraft returned from a cargo mission using a 100’ long line. Cargo was released and the bucket was hooked to the end of the line. The remote hook was not removed, and the bucket was hooked directly to the remote hook. The bucket release check while the bucket was on the ground was missed. During cruise flight at 400ft AGL and 60 knots, the pilot checked the release on the bucket which should release water, but in this case, released the bucket from the remote hook. No injuries or property damage was incurred. No mechanical or electrical issues were present during the incident. Failure to remove the remote hook led to the dropping of the bucket. Failure to conduct the water release check on the ground led to the oversight and eventual release of the bucket. CORRECTIVE ACTION: An AAR was conducted to figure out what happened, and what we can do to correct this issue. Remedial training and safety stand down will be conducted on long line procedures. Adherence to procedures will be reviewed and conducted every time. Acting FAO - Spoke with the manager. The crew and pilot will review IHOG requirements for longline/buckets operations as well as train on longline/bucket operations and procedures and perform mock-up drills. RASM: No further action required.

SAFECOM 616: Airtanker to fire loaded, dropped, and called ATB for load & return and 10 K on fuel. ATBM called FBO for fuel. Upon landing and taxi, RAMP/FWPT asked pilot if they wanted fuel or retardant first. Pilot responded retardant. Retardant crew to aircraft with load hose, began retardant loading. FBO fuel truck 1 positioned in front of aircraft, RAMP/FWPT and fueler spoke with aircrew member. Fueler 1 had 1500 gal on board and called Fuel truck 2, which had more fuel. Aircrew member responded “we need to hurry up”, Fuel truck 2 positioned on the right rear of A/C to deploy fuel hose. Fueler 2 and aircrew member discussed fueling. The aircrew member assisted with the fuel hose to the aircraft. The aircrew member connected to aircraft before the retardant loading was complete. Retardant line was pulled back and aircraft ready. ATB was short staffed and ATBM did not see the events, as the view was blocked by fuel truck 1. After aircraft departed RAMP/FWPT relayed the scenario to ATBM. CORRECTIVE ACTION: The following day’s ATBM spoke with fueler 1, 2, RAMP/FWPT, and retardant crew members about the previous evening’s events. Reminded all that current IABOG and MAFFS Op Plans don not allow for simultaneous retardant and fuel loading. Placed call to MABM at host base and relayed the information. He explained that he’ d follow up on his end to remind air crews no simultaneous fueling/retardant loading. UAM comments: ATBM did an excellent job investigating and debriefing the event. Its when we get in a “hurry” that bad things happen to us. In this case it seems we were either unaware, or ignored policy due to the misperceived need to return to the fire as quickly as possible. RASM: Remain cognizant that external pressure grows as pumpkin time approaches. No further action required.

SAFECOM 502: While flying an air attack mission, we exceeded 8 hours of flight time for the day. Our morning air attack shift was lengthy due to difficulty in arranging for a relief air attack, and our later shift in the afternoon and evening had several helicopters working the fire with areas of compromised visibility due to smoke. While the helicopter pilots operated professionally, I felt obligated to remain on scene as ground crews attempting to hold roads and dozer lines occasionally summoned air support toward areas of diminished visibility. In this situation, my focus became finding safe targets for the helicopters, and providing on-scene flight following. I allowed myself to lose focus on my own mission, however, and it was my pilot who noted with alarm that we had flown nearly 8 hours already. As we made this realization, the helicopters on scene reached the end of their fuel cycle and headed for the helibase. We closed out with the helicopters as we turned toward our home field. No other airports nearby would allow us to land before our flight time expired. CORRECTIVE ACTION: The Unit Aviation Manager, Regional Aviation Safety Manager and Light Fixed-Wing Program Manager were notified. My pilot and I reviewed the need for continuous Crew Resource Management, and the need to perform the entire mission to the standard expected of us. RASM Comment: Maintaining operational focus and operating within the established policy and flight requirements are equally important. The air attack is a critical safety oversight position within our complex aviation operation so they must lead by example.