



July SAFECOM Summary

UAS FOREST SERVICE AVIATION RISK MANAGEMENT



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SAFECOMS by Type & Category

TYPE:

For the month of July there were 154 SAFECOM's submitted. Of the 154 SAFECOM's 35 were for fixed-wing, 9 for airtankers, 4 for SEATS, 95 for helicopters, and 11 for helitankers.

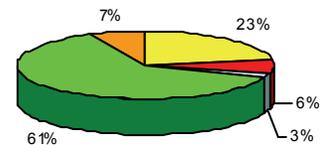
CATEGORY:

ACCIDENT—There were no accidents in July, this is the first time we have not had an accident in July since 1999. However, we did have an Incident With Potential (IWP) that narrowly missed being an accident.

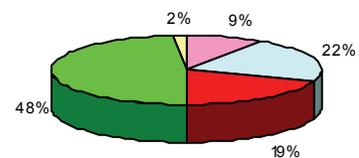
AIRSPACE— Airspace procedures accounted for almost half of the SAFECOM's in this category. There were 5 intrusions, 3 conflicts and one near mid-air reported. There were a few reports of aircraft landing at closed airports, issues with controlling aircraft, aircraft not following FTA procedures and communication issues associated with several of the airspace reports. Again it is important to emphasize See and Avoid. There are many aircraft flying back and forth to different incidents in uncontrolled airspace. General aviation aircraft are also flying in this airspace and do occasionally get into the TFR's. Just because there is a TFR does not mean you can let your guard down. There are always intruders, maintain a vigilant scan. Continue to brief on the Fire Traffic Area (FTA) requirements. We are still seeing those procedures not being followed, even by the controlling aircraft.

HAZARD— Almost half of the SAFECOM's reported in this category (17 out of 38) were due to communications. Many of

Percent of SAFECOM's by Aircraft Type

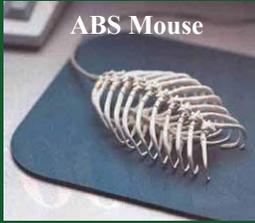


Percent of SAFECOM's by Category



the issues were related to communications with controlling aircraft. There are some indications that the controlling aircraft personnel are overloaded, fixated, distracted, fatigued or inexperienced. Some examples are: radio congestion, tempers, giving confusing direction, not completely clearing areas for operations and not following FTA procedures to name a few. We need to monitor the controlling aircraft personnel for workloads, complacency, fatigue, distractions and fixation. Ensure these issues are being discussed in morning briefings and pre/post flight briefings. A couple of Safety Alerts that are excellent tools to be discussed at briefings are [IA 08-02 Fatigue in Aviation Operations](#) and [IA 07-03 Risk Awareness and Mitigation of Hazards caused by Human Factors](#).

ABS Mouse



"Anyone with some flying experience has been caught off guard or unprepared. We're all familiar with the feeling of being ahead of or behind a situation."

*-Vince Mancuso
Coordinator of Line Operational Simulation
Delta Air Lines*



SAFECOM's by Category continued

HAZARD Continued— Last, but not least, are the issues with frequency congestion and management. Plain and simple, if you can not establish communications about the mission immediately. There were 7 reports of pilot action, which again were related to human factors. There were only a few reports of policy deviation, which were landing after official sunset and exceeding flight time.

INCIDENT— There were a significant number of dragged (7) and dropped (7) loads reported in July. Such incidents need to be reported immediately to management and discussed openly and honestly during briefings to promote a learning culture. Mission focus, complacency and fatigue appear to be contributors as well. A couple more Safety Alerts that are worth dusting off and briefing again are 2005-01 Helicopter External Load Operations and 2004-08 Clearance from Obstacles during External Load Operations. There was one main rotor strike that narrowly missed being an accident. The incident was investigated as an Incident With Potential (IWP), please review the Lesson Learned IA 08-02 from this mishap. We all make mistakes, that's part of being human. The school of hard knocks definitely isn't the preferred method of education, but when we go there, we need to share those experiences and lessons. The other sub-category that had a significant number of reports were Precautionary Landings. Most of these were due to mechanical problems. The pilots are to be commended for taking appropriate action and landing immediately.

MAINTENANCE — Eighty-five of the reports submitted were maintenance related. The most reported were: a wide variety of engine (19) and electrical (13) issues. There were several chip lights (11) and caution lights (7), of which some required precautionary landings. There were several reports of maintenance issues related to flying in the smoke and dust. There were 7 reports related to mission equipment, which were mostly on tank doors of both SEAT's and Helitankers.

MISHAP PREVENTION—While there were only three categorized as such, there were several more I saw that deserve kudos. Several pilots and mechanics that discovered maintenance deficiencies while performing preflight inspections, all the pilots that made precautionary landings, and all the pilots, managers and crewmembers that shared their lessons learned are all commended. We had a relatively safe month and we really appreciate the hard work and long hours from our fire and aviation community. We can't thank you enough for the time and effort to complete thorough risk assessments and to submit your experiences and lessons learned through SAFECOMS.



Helicopter External Loads

- Everyone involved in the mission needs to be briefed and involved in the hazard identification and risk assessment process, **including the pilot**. Use the [Program Risk Assessments](#)
- Is there a safer way to accomplish the mission? By truck or internal load? Use longline or belly hook?
- Are all involved personnel qualified and has the equipment been inspected?
- Always choose the **safest location**, not the **most convenient**. Use exposed peaks and ridges, windward slopes, or open areas.
- Site selection — The pilot has the final say, so **consult the pilot**. **Ensure the pilot does not drop below the canopy without the adequate safety circle for the helicopter (1 1/2 times the rotor diameter)**. **The pilot has the authority to use a better, safer drop site and the ability to refuse the mission.**

Refer to the IHOG and Helicopter External Load Pocket Card for additional information.

Tips for maintaining good Crew Resource Management

- *Predetermine crew roles for high-workload phases of flight.*
- *Develop a plan and assign responsibilities for handling problems and distractions.*
- *Solicit input from all crew members including crewmembers, ATC, maintenance, dispatch, etc.*
- *Rotate attention from plane to path to people - don't fixate.*
- *Monitor and evaluate effectiveness of your plan.*
- *Project ahead and consider contingencies.*
- *Focus on the big picture.*
- *Create reminders of interrupted tasks.*
- *Watch for clues of fixation, distraction and fatigue.*
- *Speak up when you see crew coordination breaking down.*

Clues to watch out for

Most accidents involving human error include at least four of these clues.

- *Ambiguity; information from two or more sources that doesn't agree.*
- *Fixation; focusing on any one thing to the exclusion of everything else.*
- *Confusion; uncertainty or bafflement about a situation (often accompanied by anxiety or psychological discomfort).*
- *Failure to fly the plane; everyone is focused on non-flying activities (aviate, navigate, communicate).*
- *Failure to look outside; everyone heads down.*
- *Anxiety associated with delays and mission accomplishment.*
- *Failure to adhere to standard operating procedures.*
- *Failure to comply with limitations, minimums, FARs, etc.*
- *Failure to resolve discrepancies; contradictory data or personal conflicts.*
- *Failure to communicate fully and effectively; vague or incomplete statements.*



And don't forget to watch for
all the other signs too!!!!

Please send comments and ideas to bhall@fs.fed.us

These are samplings from the SAFECOM's submitted for the month of July. We hope you will pick a couple of them a day to discuss and use the lessons learned in your daily briefing.

SAFECOM 08-0674 Aircraft requested for bucket work on the Fire. Helicopter was using dipsite on xxxx River. The dipsite is large enough for type 1 helicopter. The helicopter involved went to the dip @ the site. He put the bucket in the river the current then drug the bucket into an unseen branch. The bucket snagged on the branch but was able to be freed without a problem by the helicopter. The pilot returned to helibase for inspection of bucket. No damage was found. *Note* The river had risen several feet by afternoon from its morning level. Also, pilots reported debris floating in river in the afternoon. Pilot continued bucket work adjusting for stronger current. Acting RASM: Appropriate actions by the pilot to recognize and adjust for the original error. No additional events of this type occurred on the incident.

SAFECOM 08-0645 Helicopter Nxxxxx was requested to Div J for bucket work @1500 the pilot made one water drop at that time he advised air attack that he had a flight control problem and was returning to helibase. when the pilot advised helibase that he needed to jettison his bucket and longline he was directed to the emergency pad. after he jettisoned the bucket and long line he was able to make a safe landing on his assigned pad. Submitters Comments: The problem was a hydraulic line on the pressure side. will replace and do a test flight in the morning. R-5 RASM Comments: **I understand that the pilot did a great job of recognizing he had a problem, communicating his needs to the helibase and safely getting the aircraft on the ground. Good Job!!**

SAFECOM 08-0644 While flying with a bucket of water the pilot experienced a sensation that the longline was "wandering" at the attachment point to the aircraft { the hook } The pilot released the water and the sensation disappeared. He picked up another bucket of water and it once again he experienced the same "wandering" sensation. The pilot returned to base. Submitters Comments: The problem has yet to be determined. R-5 RASM: **If things don't look or feel right then the best thing to do is exactly what this pilot did, return to base and check things out to assure that all is well.** I'll update if additional information comes out on the cause of this. UPDATE: Vendor has replaced two transmission mount dampeners and re-torqued mounting hardware

SAFECOM 08-0639 Departing helibase, helicopter xxx experienced an instrument light indicating a clogged air filter. The pilot returned to helibase requested dust abatement and landed safely with no issues. This was an honest and safe action on behalf of the pilot as he could have chosen an alternate action to bypass the filter and continue. The pilot's safe actions and decisions should be standard among the aviation community. Submitters comments: corrective action was taken by qualified mechanic to clean and service the filter. It is notable that the ship had been operating in dusty remote areas that contributed to the early servicing. It is also notable that the filter, FDC intake filter in use is of higher standard than required, a reflection of the companies high safety standards. R-5 RASM Comments: **Kudos to the pilot and this company. The filter that is installed on this aircraft is an improvement on the standard setup and provides a better system for filtering the air intake to the engine. It was a good decision by the pilot to return to the helibase rather than use the alternate air option and continue with the flight.**

SAFECOM 08-0635 While inspecting T#### the pilot detected cracked and corroded external linkage for operation of the emergency dump system. Pilot performed a check of the emergency dump system and found it to be inoperable. T#### was taken out of service. Maintenance Inspector and COR informed. Local dispatch contacted and advised, Forest wide message was issued to all IA personnel as to T####'s unavailability. Vendors Aircraft Inspector provided supervision, removal and repair of external linkage. AMD Maintenance Inspector returned T#### to service upon receiving certifying documentation of repair. COR and local dispatch advised as to T#### being in service, Forest wide message issued to all IA personnel as to T####'s availability. **It is recommended that all SEAT pilots diligently inspect the underside of aircraft for affects of retardant and wear with special attention given to exterior external moving components.** During a mission should T####'s electrical system have failed the emergency dump gate would have been inoperable resulting in the pilot having to land the aircraft fully loaded. **The pilot is to be commended for an excellent job of detecting the damage and inoperability of the emergency dump system and averting a potential aviation mishap.** UAO Comments: **Good attention to detail by pilot during pre-flight, and proper follow up and communications by SEAT Manager.**

SAFECOM 08-0663 Helicopter was using a dipsite on the fire at 9400 ft with erratic winds when around 1630, the pilot pulled the 38th bucket up and turned to leave the dip site and due to the erratic winds had to drop the load of water and in the process of gaining elevation hit the empty bucket on a tree causing two holes. Pilot returned to helibase and the bucket was repaired. Helicopter did not return to service that day due to second bucket being en route with the fuel truck. FAO comments: Spoke with ASGS and HEBM they have adjusted their operation and are no longer using this dipsite due to the consistently poor wind conditions. They have established approved dipsites with dipsite managers on scene to provide for wind direction info into the dipsite, and no further actions required. Good Job of mitigating and adjusting. RASM comments: Proper resolution of issue by FAO. **Always evaluate dipsites for obstacles, winds, ingress/egress, etc. and make determination on use based on known hazards. Mitigation for known hazards should also continue to be evaluated for effectiveness and modified as necessary.**

SAFECOM 08-0660 Damage to the aircraft was discovered during the pilot's preflight inspection on the aircraft as the pilot was preparing to return to the fire after coming in for fuel from bucket work. The pilot found one of the emergency exit windows had broken out of the airframe leaving part of the window frame still in the airframe. The pilot had the mechanic inspect the area adjacent to the window opening as well as the main rotor and tail rotor systems. There were several small paint chips and scratches where the window and its frame had come in contact with the airframe. There was also a rubber mark on one of the rear rotor blades. Submitters Comments: The mechanic removed the remaining window frame and determined that the rotors had sustained no damage. The maintenance inspector was notified of the problem and the aircraft was approved for service. The flight manual was also reviewed to ensure that the aircraft could fly without the window. The aircraft was put back into service. RASM Comments: **We have had problems with the emergency exit windows on this model (S-58T) of aircraft before. Please assure that the window frames are secured and safety wired, (as per maint. manual) during all pre-flights.**

SAFECOM 08-656 Upon dispatch pilot was distracted from completing his normal walk around of the aircraft. Upon taxi of the aircraft about 30Ft. the pilot noticed through the rudder pedals there was no movement of the rudder. Pilot instantly realized what had happened. Pilot took appropriate actions to correct the situation. The aircraft responded to the incident and returned without further incident. Submitters Comments: Pilot will return to his normal routine of walking around the aircraft prior to taxi. Air Attack Group Supervisor will add to his check list to check with the pilot to insure all control surfaces are operational prior to taxi of the aircraft. RASM Comments: **Distractions, either during pre-flights, preparation for landing, or any other phase of aviation operations can cause problems like this. Take the time to do the whole job uninterrupted.** Getting off the ground in an Aero Commander with the rudder lock still in place is not good and fortunately the pilot was able to recognize his error before he started his takeoff procedures.

SAFECOM 08-653 While preparing for a rappel mission the pilot experienced a loss of oil pressure during the engine run-up. Pilot informed spotter of the situation and the mission was aborted. HMGB notified Region X maintenance inspector and vendor notified mechanic. At 1730 vendor mechanic determined that the engine oil pressure gauge was inoperable and ordered new parts. On 7/29/08, mechanic installed new engine oil temperature/pressure indicator and oil pressure transmitter. An operational check was completed for engine oil pressure and the aircraft was returned to service by the Region X maintenance inspector. UAM/SAM: No further action required. AMI - Proper procedures were followed and AMI recommended aircraft be returned to contract availability.

SAFECOM 08-0648 The helicopter departed helibase on a mapping mission of the fire. Communication with air attack was established on the victor frequency and the plan for the mission was stated and acknowledged. Approximately 5 minutes into the recon we were flying a ridge along the fire's north flank when the pilot spotted a lead plane flying an opposite course in close proximity. Both aircraft altered course immediately to allow safe passage. The helicopter contacted air attack and was informed at that time that retardant operations were beginning on the flank, and that air attack had not expected the recon to have progressed into the area that quickly. The helicopter finished mapping the opposite flank of the fire and remained well clear of the retardant operations. The recon mission expedited movement off of the flank to stay clear of retardant operations. Quick spotting on the part of the pilot coupled with immediate communication with the air attack informed the crew of the retardant operations. Following safe completion of the mapping mission on the opposite side of the fire, further reconnaissance was put off for another mission while the lead and tankers worked the area. FAO comments There was an AAR completed after the incident at the tanker base with the parties involved and the situation was resolved. **Diligence in air space protocol needs to be adhered to at all times.**

SAFECOM 08-0636 While en route to a dipsite on a new, to us, part of the fire, air-attack commenced with a hand over briefing to the replacement air-attack on the rotor air to air. We were already in an area of somewhat limited visibility, in a canyon and looking for another aircraft. The briefing continued for an extended length of time, limiting our ability to communicate with, and locate, the other aircraft in the area, creating an unsafe flying environment. Soon after, we were close to dropping a bucket of water with ground personnel in the area, who we were in contact with, when air-attack started briefing a safety officer over the air to ground frequency. The briefing continued, without a break, until I cut in and informed them that the frequency was needed for making safe drops. With personnel on the ground under canopy, invisible from the air, I felt the frequency should be clear in case the ground personnel needed to contact me before dropping, for their safety in particular. The drop was not made until the frequency was clear. The air-attack then informed me that the air to ground was the only frequency he could use for his briefings, but he would try not to brief while we were over the drop zone. This seems to be a common problem that shouldn't occur on an established fire with multiple frequencies. Submitters Comments: I believe that the air-attack was reminded that there was an established fixed wing air to air that he could use for hand over briefings. He was also reminded that there were other frequencies, such as command, that he could use to brief if the air to ground was being used in more critical situations. This seemed to fix the problem, as there haven't been any recurrences since then. R-5 RASM: The on-site corrections are appropriate, another suggestion is that most of the large incidents have actually ordered and have in place a VHF AM `Briefing` frequency. This eliminates the problem of tying up the fixed-wing A-A if you are working tankers. **Good call on the helicopter pilot's part to get the ATGS to recognize the need to clear the A-G, however ALL of the frequencies on these fires are very busy, and proper radio procedures and etiquette are required. We all need to use and share these frequencies.**

SAFECOM 08-0622 The Jumper aircraft taxied on runway 13 for departure but 150 feet down the runway saw a single engine Cessna on final for 13. The Jumper aircraft pulled off the runway at the nearest taxi way and waited for aircraft to land. However, the A/C did a go around. It should be noted that no radio calls were heard by the Jump aircraft and without a landing light on it is virtually impossible to see the Cessna until short final. Normal A/C procedures pilot made a go around when he saw the runway was active. UAO Comments: I spoke with both pilots, the pilot of the Jumper aircraft and the Cessna. Choices by both pilots were correct; the Jumper aircraft pulled off the runway and the Cessna did a go-around. The Cessna AM radio, which is plugged into the Forest Service aux. radio pack/mixer box, which was heard inside the cockpit of the Cessna but it is assumed that it was not transmitting outside the aircraft. **Procedure in the future will be to test and confirm the AM radio transmission outside the cockpit prior to take-off. This can be done with a hand-held AM or through unicom and to utilize landing lights when landing at uncontrolled airports.**

SAFECOM 08-0617 Mission: Bucket Work with 150" long line at 6000 feet MSL, in steep terrain. The UH-1H followed the S58T into the dip, to become familiar with the area. The S58T returned for fuel and the UH-1H did three drops without incident. Around 1700 hours, on the fourth bucket {into the drop} he flew along the opposite {south} slope from the fire at approximately 40 knots. He began his right turn to the drop area when the bucket contacted the top of a tree. As per pilot "I simply let my situational awareness down and was lower than I thought. I focused on the drop area as opposed to the high terrain I was over". Once the pilot acknowledged the bucket was not operable he set down in a field, loaded his bucket into the aircraft, and returned to the helibase. Air Attack was in contact and informed throughout the whole situation. Pilot acknowledged a mistake was made. The Regional Helicopter Inspector Pilot talked with the UH-1H pilot about this event. **Thanks to the pilot for reporting his error so we can all learn from it.**

SAFECOM 08-0614 Pilot made a precautionary landing due to erratic oil pressure indications. {No secondary engine "P" light illuminated.} Mechanic found the oil pressure transducer orifice obstructed by a piece of carbon. The sensor was cleaned, a ground run and leak check was performed and the aircraft was ferried back to the torch base. No further anomalies were detected on the return flight. Called the Region 3 maintenance inspector explained the problem and corrective actions, received the okay to resume work. FAO Comments: Good decision by the pilot. I was the ATGS at the time and the pilot immediately informed me of the issue and requested landing. The precautionary landing site had been used in the past as a helibase and retardant plant. It is ALWAYS a good choice to land immediately when able to in such unforgiving terrain. This was a great decision because further flight possibly could have involved flying over rural residential. R-5 RASM Comments: **Good decision by the pilot to make a precautionary landing rather than try to get back to the torch base.**

SAFECOM 08-0595 While working large fire support on the xxxxxx, out of yyyyyy CA. The chief mechanic performed a post flight inspection after 2nd fuel cycle. Mechanic found discolored and liquefied grease at the base of the main rotor mast. He performed a "Swash plate bearing inspection", inspection indicated the bearing was out of spec { .010 is spec limitation -bearing was found to be .017}. After referencing the service manual he deemed the aircraft to be non-airworthy. Aircraft became unavailable at 1630. After part replacement -ground tests-.2 test flight The pilot in command and chief mechanic signed the aircraft off as airworthy. After regional maintenance inspectors from R1 and R5 were notified, faxes of chief mechanics documentation were submitted - The program director and C.O.R. were notified. A return to availability was issued at 1530 07-22-2008. **Pre-flight and post-flight inspections are critical to safe operations. Thanks for being thorough on these.**

SAFECOM 08-0584 During bucket operations with the 50' longline, the bucket brushed the side of a burned juniper tree top branch while performing a trail drop. In heavy smoke, the burnt juniper was hard to see due to the burned landscape and uneven terrain. Making distinctions between the burnt juniper and the blackened ground is very difficult. **UAM: Helicopter pilots working in the fire environment face simultaneous challenges. Smoke, terrain, wind, obstacles, limited visibility, other aircraft, radio chatter, while flying the aircraft with an external load and trying to hit a target. This is not an easy task.** The pilot and crew completed an after action review of the occurrence and worked as a team to develop potential solutions. After discussion with the pilot and crew, the primary points of the conversation included; To mitigate this problem for future missions, the ground crew assigned to the helicopter will advise the pilot about uneven terrain, tall snags that may be hard to see due to the conditions or any other hazard. The pilot may elect to attain a higher altitude during bucket drops when conditions are such that positive identification of hazards is not possible. Kudos to the pilot for his positive attitude, willingness to participate in the solution process, being part of a team and for filing the safecom so that others may learn from his experience.

Discussion points from the AAR

- Notifying pilot of all hazards ground and Aerial
- Pilot maintaining a safe flight pattern
- Smoke conditions
- Good positive communications
- The urgency that the Urban Interface Environment can bring, and the pressure that situation can provide.
- The most important factor is that the crew utilizes this situation as a learning tool.

RASM Comment: It's difficult to submit a SAFECOM when it involves your own crew but this crew took the opportunity to learn from the experience and by submitting this SAFECOM the information can be shared as a heads-up situation for other crews. Good job; Thanks.

SAFECOM 08-0577 During PSD mission and torch operations a radio call came from Air Attack telling us not to go any higher than we are. The Air Attack said that we had flown within 200 feet of his aircraft. All three people in the helicopter started to look for him and could not see him. Helicopter was below the tallest ridge line that was closest to us at that time. R-5 RASM Comments: I discussed this incident with the Air Ops and the ATGS involved. ATGS was counseled that the standard altitude for an ATGS aircraft is 2500 feet AGL per Fire Traffic Area procedures. **If they are going to deviate from that altitude then they need to make sure all aircraft are aware of it.**

SAFECOM 08-0573 While performing water drops on the fire, pilot noticed the open door light on. The left passenger sliding door had opened while in flight. He then slowed his airspeed and notified helibase that he was returning to land to have personnel close the door. Helicopter landed at helibase and personnel shut the door. Helicopter returned to the fire without further incident. At the end of the day, an AAR was conducted with crew and contractor personnel to discuss that the doors should be shut firmly and rechecked before take off.

SAFECOM 08-0551 Pilot reported to mechanic that an {ever so slight} flicker of the bypass indicating light on the newly installed ADC engine oil filter had occurred, although it had not remained in a constant on state. Upon further inspection of the filter "chunks" of brass material were present in the filter. Diligence by not only the pilot paying attention and the mechanic willing to check the filter certainly prevented a soon to occur forced landing. **Thanks to this crew, maintenance and pilot, for taking the time to investigate and willingly remove the aircraft from availability at a most inopportune time. Job well done! Assistant RASM Remarks: Indeed, job well done!** I spoke with the FS AMI, the engine was removed and replaced.

SAFECOM 08-0544 The ABC Complex received a mission to help the XYZ complex with a troop shuttle. The ABC Complex was going to send 2 type 2 aircraft with helitack to accomplish. Received info from the helibase containing location, frequencies, and TFR info. We sent a manager and manager trainee along with 2 crewmembers to accomplish this mission. While flight following with local ECC and upon entering the FTA the manager trainee tried to contact the air attack of the XYZ fire several times. After no contact the Trainee contacted the ECC and confirmed frequencies. The ECC confirmed the frequencies and let us know that there was no air attack over the XYZ fire, just helicopters. The ECC then advised that an air attack was working the fire in the area and they had control of the airspace. The trainee then switched to that incidents frequencies and tried to make contact. After 10 attempts and no success we decided to land at H-XX. Talking to the other helicopters on the fire they said that they had the same problem. Looking out the left side of the aircraft we saw heavy tanker traffic about 1 mile a way and decided to stay on the north side of the ridge. We completed the shuttle and went back to helibase. I believe with two complexes so close there needs to be better coordination and frequency management. We should of never been given the mission unless the unknown fire was in the loop of what was taking place. The air attack on the fire was most likely using a FM air to air while the local ECC gave us a RW victor to use. There was no RW on the fire at that time that we were aware of. When briefed on our mission at no time were we informed of the fire. The helicopter superintendent stayed at H-XX and watched and coordinated the aircraft coming in and advising the 2 mediums of the tanker traffic. When adjoining units share aircraft there needs to be the constant information flow. The XYZ fire did not advise the ABC of the fire...Assistant RASM Remarks: As with any border situation, as stated constant information flow has to happen. I discussed this scenario with the RASM and we agreed that this is a difficult situation with the addition of complexes and fires. I believe that this is best treated as a "border" type of a situation whereas **the sending unit has to contact the adjoining unit assuring that all assigned aircraft, frequencies, ETD and ETAs are understood before the aircraft leave the ground. This takes so much more additional effort with so many players involved, but has to be done.**

SAFECOM 08-0536 Exceeded the guideline of maximum of 8 hours flight time per day. Flight time for the day was 8.5 hours. I reviewed the Aerial Observer Guide and will remain informed of remaining flight hours and plan missions accordingly. I will make sure pilot is aware of the 8 hour maximum flight time per day. UAO Comments: I discussed flight time policy and management with AOBs and pilot. Honest mistake, don't feel it will occur again. RASM Comment: **I think sometimes the hardest part of our job is to admit we made a mistake! Everyone makes mistakes and this was a good reminder to all for flight hour management.**

SAFECOM 08-0525 Mechanic was cleaning blades and found a crack in upper surface of blade between flaperon hinges. Crack was perpendicular to leading edge about 8 inches long. Aircraft put out of service. Waiting for replacement blade. AMI was Notified. Parts replaced and aircraft returned to service and availability 7/10/08. **R-5 RASM Good pickup on the pre-flight by the mechanic, Thanks**

SAFECOM 08-0507 Hxxx and crew were assigned the task of wrapping a cabin for fire protection purposes, the mission consisted of locating the cabin, placing the crew at a nearby landing site and the delivery by long line the equipment needed to wrap the cabin. The cabin was located and a brief discussion of load placement was discussed, the aircraft then proceeded to a landing site to offload the crew {6 persons}. The aircraft with the superintendent aboard departed the landing site, again passing by the cabin and discussing the length of line for the job, it was determined 150 ft. would work. upon landing the supt. departed the aircraft and the longline was attached to the a/c. The a/c repositioned to the cargo area, the load of 735 lbs. was attached and the a/c departed for the cabin. The load was placed near the cabin prior to the crews arrival in the area. Upon return from the mission and during shut-down it was determined that the main rotor blades had been damaged during the flight and that the a/c would be placed out of service. Notifications were made to helibase mgr., IMT and RASM. The pilot advised that the aircraft rotor blades had contacted a tall tree at the cabin site and that the severity of the damage at time of the accident was unknown and the decision was made to fly back to the helibase. Corrective actions are ongoing as are the repairs to the A/C, but **a major point is that the we must adhere to the policy that no aircraft will drop beneath the level of any obstacles without the appropriate Safety Circle clearance. R-5 RASM This was originally classified as an accident and an accident investigation team was identified and went to the site conducting the investigation. The NTSB down-graded this to an Incident. We will continue with our investigation as an Incident With Potential (IWP) and a report will be forthcoming.**



SAFECOM 08-0534 At approximately 1100 on July 10 helicopter xxx was participating in a crew shuttle from xxx helibase to a newly approved H-31. A breakdown in communications was experienced between pilot, parking tender, and helibase as the aircraft beginning to lift before helitack personnel had finished securing the cargo net and closing the pilot side passenger door. The communications breakdown occurred between all three entities. The helicopter landed for its second load of troops. Helitack from the EU use crew began loading the ship with the assistance of 2 CWN helitack. As the EU personnel finished loading they exited on the co-pilot side. The pilot seeing all members of the crew exiting the rotor arc called helibase and requested departure. The pilot received the departure approval and instructions from the helibase and gave the thumbs up to the parking tender. The parking tender did not see the thumbs up from the pilot even though the pilot thought positive communication had been established. The parking tender was looking for traffic that called inbound and he didn't hear the distance, the traffic at the time was no factor. The pilot getting approval from the helibase and giving the thumbs up began to lift. The parking tender immediately notified the pilot of a door still open. The pilot landed the ship the cargo net was secured, the door was closed and after all personnel was clear the pilot lifted off and delivered the troops to h-31. Upon return to the helibase the pilot shut down to debrief with manager and associated personnel. After the meeting it was found that the pilot seeing all the EU crew members exiting was not aware of the solo CWN crew member {t} still closing up the cargo and door. Corrective action was taken on all three sides. parking tender: although the parking tender was paying attention and looking for the inbound traffic continued communications with the pilot is needed. corrective action: all personnel briefed on the need for positive communication with the pilot and procedures. pilot: the pilot had seen all of the crew members depart the area and received approval from helibase for departure, there was thought to be positive communications with the parking tender. so the pilot began to lift. corrective action - ensure positive communications with parking tender before departure. helibase communications: helibase approved the departure request from the pilot from an air traffic perspective. helibase was staffed with trainee air base radio operators due to the lack of qualified ABRO. corrective action - qualified ABRO's were requested again. R-5 RASM Comments: **Good AAR conducted on this incident and good suggestions on follow-up. The only thing I would add is to make sure that the tempo of the operation is appropriate. In other words, SLOW DOWN if that was a factor at all. When we rush or feel rushed, we tend to forget things.**

SAFECOM 08-509 While performing the ""Before Start"" checklist I observed only 900 lbs of fuel on board the aircraft in preparation for a smokejumper mission. While this is sufficient fuel to depart and return it is inadequate to perform the intended mission with proper reserves. Our standard fuel load prior to mission dispatch is 2600 lbs of fuel. I stopped the checklist at that point, kept all persons off of the aircraft and ordered fuel. The fueler arrived shortly after our call and fueled the aircraft. After fueling was completed we loaded the aircraft and continued with the mission following normal checklists and procedures. While we did not ""operate"" the aircraft in an unsafe manner or pose any potential threat to either the aircraft or the crew, we did delay our departure by approximately 15 minutes. Failure to follow the ""complete"" cockpit preflight checklist properly, allowed for the aircraft to be in a ""non"" mission ready condition. Consequently we failed to support our customer in the timely manner expected. This situation identifies a potential flaw in our daily operations and highlights the need to perform all checklists properly and completely. Standardization Pilot: Per items identified in the above statement, awareness of proper checklist use needs to be addressed. While the inadequate fuel status was caught during a subsequent checklist and addressed prior to flight, there are items covered on the ""Cockpit"" checklist that are not duplicated in follow on checklists. **Several items on that checklist are ""safety of flight"" systems and/or indicators. The omission of one of these items could have undesirable impacts on the aircraft/flight. A statement of the situation will be distributed to all crews operating the C-23A outlining the situation that occurred. That statement shall include emphasis on performing proper and complete checklist utilization to include all checklists and standard operating procedures.**

SAFECOM 08-500 During a backhaul mission from the helispot to the helibase, a sleeping bag slipped out of a cargo net and fell to the ground about three hundred yards to the north west of the helispot. The sleeping bag was recovered and no people or property was damaged. After consulting with the crew members on scene it was decided that the purse strings were not fastened securely enough with either flagging or tape. So, while the load sat on the ground before pickup the load must have shifted and opened up the top of the net. The opening allowed the sleeping bag to slip out as the aircraft turned and the longline swung outward. The sleeping bag was recovered and the remaining nets were checked thoroughly to ensure that the purse strings were securely fastened prior to the flight. R-5 RASM Comments: **Please take the time to assure that each and every load that is going out is prepped properly.**

SAFECOM 08-0492 At 1840 ship returned from 3rd cycle of the day with a damaged bucket. Pilot said visibility was poor and he was focused on the drop, and allowed the bucket to hit the top of a ridge. Helibase manager, air ops, and acting regional safety officer notified. Had speaker phone discussion with pilot, acting regional safety officer and manager before flight the next day. **Pilot discussed events at morning safety briefing as part of safety talk, air ops, helibase manager, and HEMG, discussed with pilot not to do anything that is not comfortable or beyond personal ability, ability to turn down mission, and fire is a job not an emergency.** Acting RASM Remarks: **The following information was provided by the PIC of the aircraft. I appreciate his candor and also for the willingness to share this experience with the rest of the crews at the next morning brief. This was a great opportunity to share lessons learned from this experience in a After Action Review setting.** The following is the pilots letter:... At around 1835, while preparing to launch on a water drop mission in support of the Boy Scout facility near the West Basin Helibase, I received an assignment to proceed to the XX Division to drop water with NYYY. This mission was assigned to us via Air Attack. They indicated there were visibility issues and I would have to assess them when I got there. Since we hadn't really had any visibility issues earlier in the day while dipping out of the Los Padres Reservoir, I assumed that would be our best route for getting to the fire. I accepted the mission and proceeded to XX. I decided to proceed around the fire to the East due to the low level marine layer over the coast as well as the smoke. On arrival at XX, I established visual and radio contact with NYYY and then proceeded into the area. There was a lot of smoke, but I assumed the visibility was workable since NYYY was in the area. I followed him down the ridge noting his dip point (which was a pond) and then onto an ocean dip. I departed dip and picked up NYYY (again) going up the ridge. I followed behind him in on his drop at the top of the ridge and then lined myself up for the drop. I felt at the time I could work with the visibility and the terrain, I came up on the drop, opened the gate, lowered the collective slightly, and commenced the downhill run. Unfortunately, I focused a bit too long on my downhill run, allowed the bucket to get too low, and contact the ridge. I immediately pulled up, but I could see that the bucket was damaged. Having damaged the bucket, I reported the incident to the XX Site Commander and Air Attack, and returned to the helibase. Obviously despite my own opinion that I could handle the assignment, I exceeded my personal limitation. I did that by assuming that just because others were working the assignment, that I could do it as well. That was my major error in judgment. I shall certainly increase my assessments of these factor in the future..... ACTING RASM REMARKS: This incident was classified as an Incident-With-Potential, **Please share this SAFECOM with your helitack crews and pilots, please brief risk vs gain and perform a good mission planning exercise to evaluate all the risks associated with the mission.**

SAFECOM 08-0489 Upon landing at airport the plane began skidding to the left. The pilot corrected the plane's skid and gained control of the plane and came to a complete stop. All passengers exited the plane and found that the tire on the left main was flat. Dispatch was notified of the situation and phone calls were made to the proper individuals. An air compressor was used to fill the tire and the plane was moved off the runway. The plane was taken out of service at 1006. Upon inspection of the tire a nail was found. The pilot feels the nail was picked up on the taxi way to the terminal on his first landing to pick up passengers. There was a near by airplane hanger that had wind damage on the roof, the nail appeared to be a roofing nail. RAMI inspected the plane and told pilot that if the ordered mechanic could repair the tire, the plane could return to contract availability. He also wanted the following: an entry in the aircraft log book, a phone call telling him what transpired and a faxed copy of the outcome. The pilot did all that was asked and the plane was put back into availability at 1754. **The Pilot did an outstanding job at controlling the plane. RASM comment: There was good notification and the process was followed. The pilot handled the landing well, and no one was hurt. Kudos to the pilot for being prepared for the unexpected.**

SAFECOM 08-486 During bucket operations with a Bell 212HP on the ABC Complex with a 100 foot synthetic longline, after filling the bucket the pilot began to lift out of the dip when he felt the load on the aircraft pulling on the right side. Looking at the bucket he could see that it was not hooked and then checked his mirror to find that the longline had become hooked over the heel of the right skid and immediately released the water from the bucket. Once the water was jettisoned the pilot flew out of the dip site and contacted helitack personnel on the fire. Helitack personnel found a small site where the pilot could put his bucket on the ground and hover approximately 50" off the ground. Helitack then tried to free the line by flipping it over the skid, but were unsuccessful. The pilot then lifted and returned to the helibase where he could hover just off the ground and the line could be unhooked from the skid and land. The line and skid were inspected and no damage was found. Being that the situation wasn't discovered until the pilot attempted to pull out of the dip and no clear reason for the incident occurring could be determined the only corrective action could be for **pilots to check the mirrors before lifting out of any dip site while bucketing with a synthetic long line.** R-5 RASM Comments: The pilot in this incident has also found out from other sources that when using a synthetic longline, high skidgear and making a descending left-hand turn that it is possible for this to occur. **This certainly is good information to get out to all pilots.** Checking your mirrors before coming out of the dip-site is the answer for not getting yourself into a problem.

SAFECOM 08-0650 Nxxxxxx Medivac Ship Input: After completing extraction of the patient on the fire Air Attack cleared us to the Hospital, a flight through less than ideal conditions due to smoke. En route to accomplish this mission our flight path took us approximately 3-4 miles NW of a local airport with associated helibase for another incident.. During this time Air Attack advised us of a revised Lat/Long for the Hospital. The pilot reprogrammed this information in to the GPS unit. At this time a helicopter who identified themselves as "Helco" advised us of our proximity to them. They said they were approximately 200 ft above us. At this time we were flying on a heading of 130 and 3800 ft MSL and 1100 ft AGL and never had a visual on this A/C. The "Helco" A/C cleared to the South and we continued to the Hospital to deliver the patient. After delivering the patient and letting the Helicopter cool down we flew to the Airport for fuel. Upon landing and shutting down I talked to the Air Attack who was then on the ground and he expressed that he was aware of the near miss and that he could have done a better job of clearing the right of way to the Hospital. During this whole operation we were not informed of any other aircraft in the area. Approximately 30 minutes after landing I called our Helibase and let them know we were getting fuel but that it was doubtful that we were going to be able to fly back due to the current smoke conditions. Nuuuuu HLCO Input: A near mid-air occurred between two helicopters while performing fire suppression operations. These aircraft were not working for the same incident and were performing two different missions. Nuuuuu { HLCO} was leaving local Airport {Helibase} in route to a fire in the Wilderness west of the airport approximately 14 miles. Nuuuuu announced over Unicom frequency am 122.800 that they were lifting from the Airport west bound and acknowledged no other reported traffic. Approximately 4 miles west of the airport helicopter Nxxxxx unannounced on Unicom 122.800 or fire frequency victor frequency 134.350 flew under Nuuuuu within 200 feet direct path. This was noticed by the HLCO just prior to the over-fly and contact was attempted on said frequencies with no contact. Within one minute Helicopter Nxxxxxx reported on Unicom 122.800 that he was over "airport" heading North East. HLCO contacted Air Attack on 132.125 and discussed the flight hazard. HLCO was informed of Nxxxxxx mission {Medivac} and ATGS apologized and relayed they were unaware of the Helibase location at the airport as was Nxxxxx. R-5 RASM Comments: In reviewing the details of this incident and talking to a number of those involved it appears that there are some areas of communication that could be improved upon. **However all parties involved need to recognize that this incident occurred in uncontrolled airspace, outside of any TFR's for the incidents and the aircraft involved could have just as easily been one or two general aviation aircraft. Although the ATGS stated that he could have done a better job in separating these aircraft, I don't fault him at all. An ATGS over an incident cannot guarantee a clear ingress and egress route to and from the a facility that is over 30 miles away.** Likewise an aircraft over flying an airport traffic area should come up on the CTAF frequency and make an announcement of their position, (which was done) but, they are not required to and they were away from the airport reportedly 3 to 4 miles and above the airport traffic pattern altitude. **Bottom line is SEE and AVOID. If it is so smoky that this cannot be done, then it is time to shut the operations down until it clears up. Adjacent complexes should also try to notify each other of possible missions that could affect the airspace between the incidents if possible and if it is foreseen.**

SAFECOM 08-0474 On approach to a spike camp called H3, to insert helitack for crew shuttle, an unsecured empty plastic bag flew through the main rotor blade of the helicopter. Upon landing the pilot shut the helicopter down and inspected the rotor system. He found no damage and radioed back to the helicopter mechanic the details of the incident, and that he had found no damage to the aircraft. After conferring with the mechanic the pilot resumed the original mission of troop transport. Although the spike camp manager and crews on the line had been previously briefed on LZ management and to secure loose items, it was again relayed over the radio to the personnel on the line. And it will continue to be a key point in all briefings for the remainder of the incident. R-5 RASM Comments: **It is very important to make sure all items are secured at both helibases and helispots.** Fortunately in the case there was not damage.

SAFECOM 08-0478 Longline Bucket Operations for Fire Suppression. During a longline mission, the pilot identified the target and began to hover closer to the intended tree to drop on. In the hover the helicopter experienced a "settling in power." With the ship losing power in swirling winds he decided to pull out of the drop. While exiting the drop area he felt as if the bucket had snagged a tree. With the winds, ship losing power and snagged bucket the pilot decided to drop the long line and bucket and exit area. Pilot contacted crew on ground, the crew was not near the dropped load, then contacted Air Attack of the situation. No injuries, minor damage to equipment. R-5 RASM Comments: **We are starting to see a rash of these type incidents. With the current and expected activity we are going to be at this for a long time. Pilots and supervisors need to talk about these incidents and focus on what is causing these type incidents. Do we really need to get down that extra 10 or 15 feet. give yourself some additional room and an extra margin of safety.**

SAFECOM 08-0477 Air resources on fire at time of incident AA, two Seats, Two helicopters - fire- 20-30 acres H-XXX was circling clockwise around the ridge, preparing to make a water drop. Both helicopters had been advised that the SEAT would maintain 6,500 until both helicopters had completed their missions and had cleared the area. While coming around the southeast side of the ridge at an altitude of 5,500 feet, H-XXX was over flown by a SEAT flying the opposite direction at an estimated height of 200 ft. The H-XXX pilot and helitack crewmembers at H-1 witnessed this close call. HXXX Pilot called AA immediately and stated he was at 5500 and making a drop. AA replied the seats were holding out at 6500. Witnesses to the fly over believed the SEAT was doing a dry run over the north flank of fire. It became apparent that AA- was not aware of the SEAT's altitude or position, nor was the SEAT aware of the altitude they were supposed to be maintaining. Another point that should be mentioned is that numerous personnel commented on the extreme excess of radio chatter on both Victor and Air-To-Ground. At the beginning of H-XXX's water dropping operation, the pilot was given a target to drop on by AA. Before H-XXX reached the target with his bucket, he was called by someone on the ground on a separate frequency to drop on a different target. When H-XXX informed AA that he was receiving conflicting instructions, he was told that in such a situation he should follow AA's orders, but to go ahead and drop where the ground crew wanted the water. This was a confusing directive as the pilot was being told to prioritize AA's targets, but to go ahead and drop where the ground crew wanted instead. The pilot of H-XXX was then told by AA to just communicate directly with ground personnel as to where to drop. This arrangement cut down on radio chatter considerably, although there continued to be confusion as to which ground personnel was supposed to be directing the pilot. During the AAR with Pilot and crew, ways to mitigate these types of occurrences' were discussed; including shutting down helicopter ops until a good, safe and effective air operation can be established. The following day the IC called the helibase and apologized for the confusion caused by the ground forces when prioritizing bucket targets. The AAR done by the fire personnel covered these topics. RASM comments: This should really be reported as two situations. For the communications on targets, it should have been clarified as to who the pilot should be working with for targets. The SEAT airspace issue was followed up on by a STAT team. There was obviously miscommunication as to what altitude each of the aircraft should have been at versus what they really were at. Both of these issues come about in the dynamic environment we operate in. **The key lesson here is when frequencies are jammed affecting communication; if missions or priorities are not clearly understood; if airspace congestion becomes problematic- shut the operation down. Take time to resolve each issue so they don't stack up. We were fortunate on this one.**

SAFECOM 08-0451 While conducting longline cargo operations on the XYZ Fire, on the XYZ National Forest, the Helispot was over flown at low altitude by the fire's AA platform. The AA platform flew over the Helispot at or about 500" AGL. H-xxx was in the process of lifting a cargo net with 100" longline and hazardous materials on board. There was no warning or contact made by Air Attack. Neither Helispot personnel, nor H-XXX were aware of AA's presence. The AA platform made two orbits of the Helispot without ever contacting aviation assets in the area. H-xxx was immediately notified of the traffic in the area. H-XXX set the cargo down and waited for the AA platform to depart the area. Notifications were made to the helibase on the fire, Air Support Group Supervisor, and Air Operations Branch Director. R-5 RASM Comments: **ATGS aircraft are typically orbiting at 2500 feet AGL. They are like any other aircraft in the airspace in that if they are going to deviate from their normal SOP's then they need to make an announcement to that affect on the appropriate radio frequency. Just because they are the Controlling aircraft in the airspace does not mean that they can make any maneuver they choose unannounced.** I will follow up with the ATGS involved.

SAFECOM 08-0479 Since 6/25/08 we have been flying air attack missions on both the AAA Complex and BBB Complex. During that time our primary VHF-AM radio frequency {Primary Victor} has been usurped by the aviation resources on the CCC Complex. For the past three days, the BBB Incident Comm. unit has procured a new Primary Victor frequency for our use. Every day, we have found the new frequency being used simultaneously by the CCC Complex. Several times their transmissions have covered our radio traffic. It is only a matter of time before a critical situation is the result of a lack of poor radio frequency management. Submitters Comments: The problem has been brought to the attention of the Southern Area Team managing the BBB complex. They referred the issue to the Area Command Team who has assured us the problem would be rectified today. After hearing that, we took off at 1426 hours, and found the problem still existed. We need to switch our operations to the secondary frequency in the middle of bucket operations. Apparently the problem has not and will not be rectified. R-5 RASM Comments: We have a daily Aviation conference call where these type of issues should be brought up, I don't recall this issue being discussed on the call. We also have a frequency manager assigned to North Ops to deal with frequency conflicts and would be a primary contact. **Although this is a SAFECOM issue, the SAFECOM is not the quickest or easiest way to get these type of issues dealt with. Direct contact by telephone with the GACC frequency manager or on the Conference call is the best.** Shortage of VHF AM frequencies requires us to share them and the frequency manager tries to split them up geographically to avoid conflicts, but if it's not working they need to know.