SAFECOM’s by Aircraft Type

For the month of September there were 97 USFS SAFECOM’s submitted, well above the 10 year average of 70. Of the 97 SAFECOM’s reported, 14 were airplane, 17 airtanker, 64 helicopter and 2 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 6 airspace, 25 hazard, 42 incident, 47 maintenance related, 8 mishap prevention and 3 management SAFECOM’s reported for this period. Below is the percent of SAFECOM’s in each category.
SAFECOM’s by Category continued...

ACCIDENT - THANKS to everyone for your good work, we made it through another month without an accident. GREAT JOB!!!

AIRSPACE - There were 6 airspace events reported. Of the airspace events, 3 were intrusions, one was a helicopter coordinator that intruded into another fire's TFR and two were general aviation fixed-wing aircraft. There were 2 conflicts, one was with a air-attack at an airport and the other was with two helicopters working on a fire. There was one “other” which was a forest health survey airplane that had a airplane fly directly beneath them.

HAZARD - There were 25 hazard reports in September. The “Pilot Action” category had the most with issues like: pilot leaving aircraft with rotors still turning; pilot leaving mechanic at control and exiting aircraft while hot fueling; pilot having difficulty with longline; and flying 4.6 hours without a break. Some of the communication issues were: pilot turning down dispatch; no communications after making a precautionary landing; medical plans with incorrect lat/long; dispatch radios not working and an intrusion. Other hazards identified were two instances of antelope on runway, passenger unloading, flight paths at helibase, overloading airtanker, engine cowling coming open and starting helicopter with rotors tied down.

INCIDENT - There were 42 incident reports, precautionary landing was the most reported in this category with 13 reports, which were mostly due to mechanical issues. There were 5 dropped loads and 3 dragged loads. There were 3 aircraft damage reports; door damage from rotor wash; rotor strike and FOD in the rotors. There were 9 “Other” reports which ranged from a bucket rescue, mission creep, overloading airtanker, fire under helicopter and settling to name a few. There were 3 IWP’s; a rotor strike; compressor stall and air-attack aircraft that experienced extreme turbulence from a fire plume.

MAINTENANCE - There were 47 reports submitted having issues associated with maintenance. Engine problems were again the most reported in this category with 14 reports. The other most reported issues were: 7 hydraulic, 4 chip light, 4 electrical and 3 gear box.

MANAGEMENT - There were two internal management reports, one was regarding a dispatch of an airtanker and the other was a overloaded airtanker. There was one external management regarding placement of a door that was removed off a 350 B3 and was damaged from rotor wash.

MISHAP PREVENTION - There were 8 SAFECOM’s in this category which included 2 instances of helicopters rescuing ground firefighters; 4 events where pilots made outstanding decisions, including turning down a dispatch; mechanic finding crack on the gear box mount; and actions taken on a fire that started on the helipad.
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 12-990:** After returning to helibase and shutting down for fuel, the mechanic heard a noise (clinking) in the tail boom at the tail rotor gear box. Upon examination, he found that five of the six gearbox mounting studs were sheared and backing out of the gearbox flange. They immediately notified the HMGB and removed the aircraft from availability. The pilot didn’t notice any unusual vibrations during his mission or anything that caused concern. The R-6 maintenance inspector has been notified. CORRECTIVE ACTION: A new gearbox was ordered and has arrived. The crew is replacing the gearbox and will notify the maintenance instructor upon completion. AMI Comments: TR gearbox was replaced and aircraft was returned to contract availability.

**SAFECOM 12-991:** While on a water dropping mission a helicopter had a rotor strike with a tree. The second in command pilot was flying the aircraft at the time of the strike. The SIC was off a dip at 3900 elevation, and approached the target which was in a draw, 1,000 feet below the dip site. The tree was a buckskin snag that was approximately 30 feet above the main canopy, the blades took off the top 4 feet of the snag, the diameter where severed appeared to HLCO to be about 4 inches. The PIC saw the snag and told the SIC to add more power and to pull up. Both pilots reported feeling the A/C shutter when the blades struck the snag. After the strike the Pilot in Charge took control of the A/C and landed the ship in a clearing near the dip site, the PIC stated that from the time of the strike to landing was less than two minutes. All five rotor blades received damage about 18 inches inboard of the blade tips, there was no other apparent damage to the aircraft. HLCO landed and returned both uninjured pilots to the helibase. Aircraft, PIC, and SIC were all carded for the above mission. CORRECTIVE ACTION: RASM: This is an Incident with Potential, it will be documented via a Lessons learned format.

**SAFECOM 12-992:** Upon return we made two water drops working with helicopters - believe H-XXX who was just leaving and helicopter H-YYY was just arriving as we had a second hydraulic failure and we made both VHF air to air and FM air to ground calls declaring we were making an emergency landing. We dropped the load of water and continued out of the mountainous area looking for an emergency landing area which we found at an LA Co Fire Camp landing pad in the Azusa Canyon area. Upon landing without incident we were unable to contact anyone on cell phone or FM within the deep canyon. After about 20 min we decided to walk to what looked like a FS work camp but turned out to be a rehab center. We were able to use a landline and call for help giving our location. While there about 40 min after the emergency landing we heard a helicopter over head and looked up and thought we saw copter H-XXX looking for us but we were too far from the helicopter down the hill at the camp to call them. H-XXX at least would have seen that the helicopter had not crashed. CORRECTIVE ACTION: Air Attack had left the area to a new start prior to the incident, H-XXX heard, but was on his way in for fuel, H-YYY did not hear anything because they were in “cockpit silence” conducting a rappel mission. When H-XXX came back on scene after fueling, he asked about the helitanker and his whereabouts, at this time another helicopter was on scene, H-ZZZ and he said, I’ll go look for the helitanker and found them safely on the ground. From the ground side: The IC, contacted helibase to tell them that the helitanker was making an emergency landing, helibase contacted the dispatch center with the information. So, where’s the gap? Helibase should have asked dispatch to watch the helitanker on AFF and obtain a lat and long where they landed and once H-YYY was done with their rappel mission or when H-ZZZ came on scene they should have located the aircraft to assure that the helitanker was safely on the ground. This was a good learning opportunity for helibase personnel. Additionally, dispatch was asked to notify the GACC when emergency landings occur, and the GACC will notify the Regional Aviation Group.
SAFECOM 12-997: At about 18:10 mid way through the 2nd cycle of the day helicopter was on the way back to the log dip in div c, pilots felt a shutter in the rotor system followed by a whistling noise and a vertical vibration. Pilots suspected a blade pocket separation. pilots elected to land the helicopter near the dip site to reduce further damage to the pocket. upon shut-down the blade was found to have a partial pocket separation on the bottom of the blade approximately 5 feet from the blade tip. CORRECTIVE ACTION: Pilots made the right decision to find a suitable site to land. Mechanic was able to perform a Pocket to spar Separation Repair. Helicopter was relocated to helibase to do a complete blade replacement. RASM: Blade was R & R and was RTCA by Regional AMI.

SAFECOM 12-1056: On routine inspection of the engine compressor, mechanic discovered damage to first stage compressor blades. Upon notification, pilot made a determination to perform a more detailed inspection, aircraft was removed from service at that time and regional maintenance inspector was notified. Upon inspection it was found compressor had experienced FOD {Foreign Object Damage}. The source and time of the FOD is not known, no performance changes were experienced before the inspection. Damage was discovered to be beyond manufacturers limitations, and a decision to replace the engine was made. CORRECTIVE ACTION: Engine was replaced, test flight and power check were completed and were satisfactory. Regional aviation maintenance inspector was notified, given copies of logbook entries of maintenance performed, and returned aircraft to contract availability. FAO Comments: No further action required aircraft is back in service. Acting RASM comments: Good catch through a thorough inspection. Communication went well between the vendor, Manager and RAMI and the aircraft went back to work.

SAFECOM 12-1007: While working the fire at 9500 ft, I noticed a reduction in manifold pressure (MP) from what I had previously set. Instinctively I advanced the throttle and eventually the manifold pressure responded accordingly. I again advanced the throttle and the MP increased but not to the setting I expected. At that time not quite sure of the specific problem but recognizing that we had a partial loss of power and after evaluating the situation, the engine was still producing power and operating smoothly, no roughness, and all pressures and temperatures were normal and stable, I informed the ATGS that we were going to have to break off our mission and go somewhere to land. While XXX was the closest to us its route encountered the highest terrain, while YYY was lowering terrain from where we were. I knew the engine was not going to quit so considered it as one of our options along with XXX. The ATGS indicated he would prefer to go to XXX so we diverted to XXX and stayed out of the higher terrain which while not direct was not a problem. On arrival at XXX, the FBO mechanics found that a clamp assembly on the exhaust system between the exhaust collector and the turbo had a bolt failure which allowed the exhaust to exit there rather than go through the turbo resulting in partial loss of boost. CORRECTIVE ACTION: Repairs were made and regional aviation maintenance inspector returned the aircraft to contract availability. FAO comments: Good CRM by ATGS and Pilot. RASM Comments: Another good example of teamwork by the ATGS and pilot with a successful outcome. Good job by the pilot of recognizing the problem and the call to discontinue the mission. Keep up the good work.

SAFECOM 12-1015: While preparing to start the helicopter for the 3rd round of aerial ignition with PSD, the pilot hit the switch to begin ignition of the turbine. The main rotor was still tied down to the tail boom and was noticed by the fuel truck driver who immediately waved for the pilot to shut the switch off. The tie down strap was removed and mission continued as planned. Engine had not ignited and transmission had not engaged. CORRECTIVE ACTION: The parking tender did not have a radio and did not make contact with the pilot. All helitack personnel should have radios and should be wearing PPE while involved with the startup and launch of helicopter. RASM: It is essential that prior to ANY flight, a pre-flight is deliberately completed. The pilot has the ultimate responsibility to ensure the aircraft is prepared for flight, but all can contribute. Everyone associated with the operation should maintain situational awareness. Again, f you see something say something.
SAFECOM 12-1025: Declining dispatch from for crosswinds exceeding the aircraft limitations. At 17:30, we had been told we were to be released at 18:00. We had just finished closing up the airplane and were proceeding to the FBO when the Tanker Base called back stating they would be launching everything to Kyyy. I had been watching the wind all afternoon with great concern. We were also told that T-aa was declining the dispatch until morning. I told them that we would do the same. The crosswind limits are 30 kts. and we had seen gusts to 31 kts. on ATIS {the NWS showed gusts to 36kts.}. The component to the runway was running 80-100 degrees. The next morning I received a call from my COR. Evidently somebody at dispatch disagreed with my decision and had complained. After answering the COR’s questions, I believe that we were in agreement as to having made the right decision. The point is, this second guessing has a negative effect on one’s aeronautical decision making. I find myself worrying about another round of questions and answers. Also, anyone looking outside would have seen the dust and chain link fence fluttering in the crosswind. In addition the amount that these gusts were over the steady wind is good evidence of wind shear. CORRECTIVE ACTION: RASM Comments: Agree with the pilots assessment: good call. The PIC has final say over all flight conditions and must remember our dispatchers are not certified FAA Aircraft Dispatchers so the flight crew should be making the weather calls. I couldn’t have said it better than the base tanker manager who stated: Everyone `should fully understand, that a pilots decision to turn down assignments, is not being “uncooperative”. Pilots take their job and missions very seriously, and are more than willing to support the wildland fire mission, this is why they take due diligence when planning for mission requests. Safety, weather, duty day limits, time of day, and RON locations all play a factor in the decision making process and risk analysis for any mission acceptance`.

Sunset was 19:24 at destination made this a marginal mission at best in ideal conditions. Prepositioning should be a planned response we need to guard against question six of the twelve standard aviation questions that shout `watch out!`` 6. Are you driven by an overwhelming sense of urgency? Cross country flights require time to flight plan. We had dispatch centers discuss during their conference call and they came up with some mitigations that will be implemented this coming season including training and having a tanker pilot discuss the aeronautical decision making process with them at their conference. The national office is also developing an aviation weather training video to help dispatchers understand what the pilots are explaining to them. There may always be questions that are the contractual nature of our business but pilots should not feel uncomfortable for making a risk management call. If they ever do feel they are being unduly pressured they have the duty to refuse or curtail a flight when an unsafe condition may exist. Never let undue pressure (expressed or implied) influence your judgment or decisions. If all else fails call the FAO, RAO, or RASM before climbing onto the flight deck and take a safety time out. One last suggestion is to encourage dispatchers to attend the National Aerial Firefighting Academy to gain familiarity with the aviation community we are working with.

SAFECOM 12-1049: Was flying up to a ridge running south to north from the west. While descending to drop water on the east facing slope at approximately 5 knots, got too low and bumped a tree. The tree poked a hole in the bucket. CORRECTIVE ACTION: Keep the bucket higher. FAO Comments: The air ops called me and relayed what had happened. Acting RASM comments: We have seen 22 reports of dragged loads this season. Loss of focus can be an indicator of fatigue and we need to be aware as the little things build up. Focus and attention are good safety meeting topics, especially at this point of the long fire season. Thanks to the pilot for reporting his experience

SAFECOM 12-1102: After lifting for a bucket mission, the pilot noticed the pressure in the Combined Gear Box oil gauge dropping and returned to base without incident. Upon inspection, the A&P mechanic realized the cap on the filler port had not been completely seated and was blowing oil out the top. CORRECTIVE ACTION: The aircraft mechanic serviced the reservoir and reseated the cap. He then approved the aircraft for return to service. The Regional Aviation Maintenance Inspector RAMI was contacted and approved the Aircraft to return to contract availability. RASM Comments: With long hours those small attention to details can add up. Get plenty of rest and take extra time on pre and post flights to insure everything is correct and double check each other. Thanks for reporting.
SAFECOM 12-1058: The Helicopter received its first mission of the day. Helicopter was running at flight idle and the mechanic was doing the normal bucket check. When the pilot checked the bucket operations, the longline attached to the helicopter`s cargo hook shorted out and dropped sparks into the dry grass under the helicopter starting a grass fire. The fire spread rapidly under the aircraft due to rotor wash. The mechanic got the pilot`s attention by pointing at the fire and motioned for the helicopter to take off. When the helicopter took off the fire spread at an extremely high rate due to rotor wash. The fire in the dry grass was blown under several vehicles and a 6000 gallon fuel truck. This all happened in the blink of an eye. The longline was later inspected and the problem was located. CORRECTIVE ACTION: This is and was a lesson learned for all and a presentation is being put together by the helicopter manager of all the events of what went right and what could have been done differently and or better. This will follow with several suggestions on how to prevent this from happening again. The Helicopter Manager and the mechanics saved the fuel truck, the equipment trailer, and several vehicles due to quick reaction time of fire suppression. As a WARNING when working in dry grass (which is normal for type 1 helicopters at helibases, landing strips, and airports)
WATER DOWN YOUR HELIPAD UNDER THE AIRCRAFT ASAP. and keep it watered down as operations continue. This could HAPPEN TO YOU!! We were very very lucky things turned out the way it did. Acting RASM comments: This is a great example of how sharing experiences can prevent accidents. The submitter provides several good suggestions and the separate lessons learned package being developed should provide more. Grass fires on helibases are not frequent, but they do occur and the results can be costly. Expect the unexpected and be prepared. RASM Comments: Did a lessons learned paper and filming helicopter manager for future training sessions. Other lessons learned including keeping fuel truck clean and ready to move if needed. Contractors having appropriate PPE during operations. Mow high grass before operation. Do not park vehicles in high grass on helibase. Have firefighting tools available in addition to fire extinguishers. Have a plan for the unexpected consequence.

SAFECOM 12-1059: Upon return and shut-down from a second fuel cycle of water dropping on the fire (a rapid refuel had occurred between fuel cycles at the request of the government). I realized that the helicopter had been operating for 4.6 hours prior to the shut-down. The interagency call-when-needed heavy and medium helicopter services contract states in Exhibit 8-fuel servicing requirements, that `"the aircraft shall be shut down after every 4 hours of continuous operation.`` In discussion with other personnel on the helibase, and in my experience the last couple of years, there seems to be many different interpretations of this clause and varying methods of enforcement. This leads to confusion in the field amongst helicopter managers and pilots and a lack of continuity of operations. CORRECTIVE ACTION: After discussions with the vendor`s CO, a regional pilot inspector and the national helicopter program manager, further clarity on this clause was found. The pilots have been briefed that, according to their CWN contract, they may not operate beyond 4.0 hours without a shut-down unless appropriately authorized otherwise. Recommended by COFMS UAO: Suggest prior to anticipate helicopter operations with extended attack a review of contract elements pertinent to `"continuous operation`` of helicopters, prior to operations, and before morning flight safety briefing.
SAFECOM 12-1075: On Incident 588 at 13:15 on September 15, 2012, a rappeller was picked up in a safety zone by a Washington Department of Natural Resources (WDNR) helicopter. The rappeller was part of an eight person crew who conducted an Initial Attack (IA) on Incident 588. The fire had been lined by the rappel crew in one day and they had established a safety zone in a meadow, where they spent the night. The next day near mid-day, a spot fire started between the original fire and the safety zone. The rappel crew was not able to control the new spot fire and requested assistance. When additional crews arrived it became apparent that fire behavior was increasing to a rate where all the firefighters dropped back. One rappeller moved to the meadow to pack up the crew’s gear and extract it. The fire behavior was observed by the Air Attack over the fire and the leadplane working with the heavy airtankers. The Air Attack contacted the Incident Commander {IC} to brief the situation. The IC, air attack, and the leadplane all suggested that the lone rappeller in the safety zone be removed by helicopter before the fire reaches the safety zone. CORRECTIVE ACTION: A WDR helicopter was dropping water in the area of the safety zone. The IC requested that the helicopter pick the rappeller up in the safety zone and fly the rappeller to a safe area. The WDR helicopter got a bucket of water and dropped the water in the safety zone between the fire and the rappeller before landing to pick the rappeller up. The rappeller put the rappel equipment in the helicopter before getting in. The fire behavior was observed by the Air Attack over the fire and the leadplane working with the heavy airtankers. The Air Attack contacted the Incident Commander {IC} to brief the situation. The IC, air attack, and the leadplane all suggested that the lone rappeller in the safety zone be removed by helicopter before the fire reaches the safety zone. CORRECTIVE ACTION: A WDR helicopter was dropping water in the area of the safety zone. The IC requested that the helicopter pick the rappeller up in the safety zone and fly the rappeller to a safe area. The WDR helicopter got a bucket of water and dropped the water in the safety zone between the fire and the rappeller before landing to pick the rappeller up. The rappeller put the rappel equipment in the helicopter before getting in. The helicopter flew the rappeller to the helibase. RASM Comment: The WDR pilot had been listening to the developing incident on the command frequency and had developed a plan to extract the rappeller. The rappeller pick-up mission was professionally planned and executed. The pilot stated that the heat from the fire could be felt in the helicopter while the rappeller was getting in. Although the rappeller felt there was absolutely no danger, the evacuation took place anyway. The rappeller description of the safety zone indicated the fire presented no real danger but it is interesting that the leadplane/IC/and air attack felt it prudent to extract the rappeller. Viewing it all from a different perspective may have led to the decision.

SAFECOM 12-1101: While working the Wild Rose Fire (Yakima Complex), the helicopter brushed a tree with his bucket on approach to the retardant dip site. No damage was caused to any equipment or to the tree. The pilot was in process of switching from the helibase deck frequency to the air to ground frequency, in order to communicate with the dip site manager. This caused a brief distraction, during which the bucket came in contact with the tree. The dip site manager notified the pilot of the contact, which had already been identified and corrected for by the pilot. CORRECTIVE ACTION: The pilot, helicopter manager, and air support discussed the event at the helibase, and determined it was due to the brief distraction of changing channels on approach. It was also determined that a higher approach in the future will mitigate the situation, as would removal of the tree. Additionally maintaining a sterile cockpit on approach, and limiting radio traffic with helicopter, will further reduce possible distractions in the future. It has been a long drawn out fire season with lots of flight hours logged. I highly encourage helibase managers and all aviation personnel to include human factor components into their briefings and continue to approach every operation with due diligence and care.

SAFECOM 12-1027: During a government requested hot refuel at the helibase, pilot needed to use restroom. Going off of what was understood in FAA part 135 standards and previous contract standards mechanic was placed at controls of aircraft while pilot went to restroom. Regional aviation employee observed this and notified manager that this does not meet contract standards. Regional employee requested a safecom be submitted to ‘pass the word’ to other modules on what may be a common practice. CORRECTIVE ACTION: HMGB: Pilot notified per contract to remain at controls during hot refueling operations. This incident shows that we need to continue to provide more training to both contractors and agency representatives on which standards are to be followed given a certain operation. For example, when do FAA requirements become superseded by contract? Public Use? RASM: Which ever requirement is more restrictive (FAA vs FS policy/contract) is what should be followed, in this case it was the contract, which states, `pilot will stay at the controls during hot-refueling operations`. 

SAFECOM’s continued......
SAFECOM 12-1084: While on our second air attack mission of the day in an Aero Commander on the Yakima Complex, we proceeded in a right hand pattern around incident 534 during which time I was looking out the right rear window at the terrain, fire activity, and from time to time glancing forward at the pilot and ATGS trainee. As we completed our first orbit around this incident at the NE corner of the fire, the aircraft flew thru a small and narrow column {50-100’ across} generated by a tight v-draw with heavy fuels burning out in a short crown run near the upper 1/3 of the slope. The aircraft and personnel on board endured intense turbulence lasting a brief couple seconds, prior to entering the column, the aircraft was travelling approximately 140 knots at about 8000’ MSL in a slight nose up right bank attitude. When the pilot recognized the intensity of the column and that we were going to penetrate it, he informed us to “hold on guys” and he leveled the aircraft as there was no time to maneuver around the column safely. The column was dense and rapidly ascending with the typical boiling motion which gave the aircraft 2-3 moderate thumps followed by a hard to extreme thump that included a moment of zero gravity. When we exited the opposite side of the column into cleaner air, the pilot stabilized the flight then we assessed the condition of all on board. CORRECTIVE ACTION: The pilot did a superb job of flying the aircraft despite the control issues. From my position in the rear of the aircraft, I could not notice any maneuverability differences from any previous flights. When our wheels touched the ground in Ellensburg, I contacted CWICC on National and informed them of our safe landing. After we taxied and parked the pilot informed us that the left Aileron was broke. RASM Comment: I classified this incident as an “Incident with potential” because flying into a smoke column is rare, the incident resulted in a flight control failure which was reportable to the NTSB, and the seriousness of the event could have had a devastating outcome. To fully understand what happened without regional influence I decided to bring in an investigation team from outside the Region. This incident is currently under investigation.

SAFECOM 12-1093: A 2000 gallon airtanker, was overloaded by 74 Gallons. Loading of AirTankers in loading pad 3-4 is monitored at the Mix-master station at the Retardant plant. At the loading Pad in use, the Mix-master monitor’s the load amount through the micro-motion screen and shuts the pump off when the appropriate poundage has been reached. Mix-master said he got busy sending other data and missed the call. The pilot was not informed at the time of the overload. Base manager upon finding out immediately went down to Retardant plant to talk to Retardant Base Manager and Mix-master to find out what happened and to make sure that this did not happen while loading other airtankers: which was happening at the same time. CORRECTIVE ACTION: Talked to the Retardant Base manager and the Mix-master and informed them of the importance of making sure that all overloads needed to be reported immediately, to the Base Manager, so that the flight crew{s} could be advised of such immediately after occurrence. Advised them of the importance of flight crew notification, overloads have an effect on the performance of the Aircraft flight. We established a procedure so that the sending of data from another load will not interfere with the monitoring of a Retardant load being pumped. We established radio communication procedures to be followed in the event of any overload, regardless of amount, happening again. Reviewed procedures with the Timekeeper/Radio operator, who thought of the importance of informing the ATB manager as soon as she saw the tear off strip for the load for the printer. SAFECOM 12-1062 also identifies an overload issue.

SAFECOM 12-1105: After landing for fuel. Mechanics were doing their routine inspection of the aircraft and found a crack on the upper left side of the Intermediate Gear Box Mount. They notified the pilots and halted flight operations for the day and made arrangements for Intermediate Gear Box Mount to be flown into the helibase that evening. CORRECTIVE ACTION: Intermediate Gear Box Mount replaced. Old one sent in for inspection. Regional Aviation Maintenance Inspector {RAMI} notified. Emailed maintenance log to {RAMI}, Contracting Officer {COR}. Aircraft was then returned to contract availability by RAMI. RASM Comments: Great job by the mechanics looking for and catching those little things before they become larger problems. Thanks for getting the aircraft up flying again and reporting what you’re finding out there.
SAFECOM 12-1026: Our airtanker was dispatched from Kxxx to Kyyy at 1400. As we flew past Kzzz, a dispatcher noticed us on AFF and diverted us to Kzzz. After two drops, we fueled and awaited our fate. Near 1800 hrs., the dispatcher from Kzzz called and in a forlorn, apologetic voice stated that we were to proceed to Kyyy empty. This put us in Kyyy well after dark, with no dinner, no rental car, and no rooms. It was our first day on contract, so I didn’t feel like questioning the decision. There were no rooms available, the Kyyy base manager was called from home & he was surprised as no one expected us to arrive that night. We ended up staying at the tanker base, thanks to the gracious treatment from the tanker base manager. None of us got a decent night’s sleep so operations were curtailed the next day. In retrospect, we should have taken the day off. At Kzzz, we should have reasoned with the dispatcher and left early the next morning instead of arriving Kyyy after hours. We found out, from NICC, that one dispatch entity was “upset” with our divert to Kzzz and subsequent non-arrival at Kyyy: so we paid the price and became the pawn in a ridiculous tug-of-war. Dispatchers must understand the safety issues with late arrivals and manifestations of fatigue, and understand why a crew is rejecting a dispatch. It’s not because “we don’t want to fly.” The crew’s opinion must be respected as they are the ones that can monitor their performance, fatigue and safety considerations. If the dispatch is late, have the crew load and leave early in the morning to arrive at the fire or base the next day. This captain has experienced this situation many times over the last 20+ years. Each and EVERY time I have received a late dispatch, I have spoken to the dispatcher and requested to leave first thing in the morning, rather than late at night, which would usually result in no fire firefighting that night, anyway. They agreed and not ONCE did they follow through on the tanker request the next day. To mitigate stress, fatigue, emotional and physiological safety issues, dispatchers must understand and communicate with flight crews to avoid a needless confrontation. Make no mistake: tanker crews are dedicated to aiding ground crews with fire retardant. Dispatchers must understand the complexities involved in tanker flying that involve, dramatically, more than simply flying the aircraft to the fire. The crews’ many years of experience have tempered the decision to go—or not to go. Let’s not let this devolve into a loss of aircraft and crew. Modern aviation safety is accomplished by logical analysis of risk assessment BEFORE an incident. CORRECTIVE ACTION: RASM Comments: On this dispatch the system failed on a number of levels and the pilot is absolutely correct. Consulted with the National Airtanker coordinator and received his response which I agree with. The flight crew performed the missions as requested and complied with the provisions of the contract. Two failures occurred on the side of the government: first in safety for the very late in day order of the (empty) ferry flight to a crew reaching their Contract and FAA flight and duty limitations. These limitations are in place to mitigate fatigue factors for accident prevention. The second failure was the lack of communication to the all parties that an aviation asset was airborne and their expected arrival time at the receiving base. The national airtanker program manager (acting) has been briefing flight crews and airtanker base personnel to evaluate late dispatch requests to help dispatch offices make the determination 1) Is the flight necessary. 2) Receiving base prepared to receive the asset. 3) Enroute weather and potential divert route weather acceptable. 4) Crew status i.e. cumulative fatigue, length of time on duty, mission hours flown in the previous days (nearing 6 in 36), etc. 5) Not move an airtanker late in the day on a preposition or for a single sunset drop. One of the goals of the dispatch community is also dedicated to aiding ground crews with supplying fire retardant in a safe manner. Unfortunately this time looks like we failed in considering all the variables and our safety net of having the pilot refuse the assignment failed. As logistics dispatchers it is our duty to insure the details are set up for a successful mission. Unfortunately room availability and fatigue are presently major considerations we need to check for evening departures in addition to getting the flight crews to help us with all the other variables the pilot mentions. If we can’t mitigate these problems we must say stand down that is basic risk management and dispatching. Please make the calls necessary to keep our operations safe, it may be difficult at times but it is much easier than justifying actions after an accident. Again my apologies to the aircrew we respect your dedication and judgment you bring to the mission. Do not hesitate to contact the regional aviation organization anytime you feel a decision was not made using the best risk management practices.
SAFECOM 12-1104: On September 19th 2012 the helicopter was flying a reconnaissance mission: on the aircraft were pilot plus three working on the Table Mountain Fire in Washington. The recon was conducted near the head of the fire over tall timber with few openings. After departing from the Helibase the helicopter was in the air for approximately one hour when the pilot notice a red light flicker on the Caution Warning panel. Because the light only flickered the pilot was unable to determine whether it was the “Fire Light” or the “ENG P” light. The pilot noted the Oil Pressure gage was in the normal range but decided to head in the direction of an open field he had spotted in case a landing would be needed. Approximately 10-15 seconds later he again noticed a flicker of a red light on the caution warning panel and was able to identify it as the “ENG P” light at which point he cross checked the engine oil pressure gage and noted it was below the minimums and falling. Simultaneously while noting the falling oil pressure gauge, the “ENG P” light fully illuminated. CORRECTIVE ACTION: The pilot then told the passengers on board that he had to land immediately at which point the pilot made a left descending turn into a tail wind, towards the only open field in the area. During the landing sequence the high rotor warning horn came on momentarily due to an exceeded rotor speed limitation. During short final the engine continued to be in working order and the pilot was able to make a normal power-on landing. Once safely on the ground the pilot notified air attack of the unscheduled landing and shut the engine down. The Pilot maintained positive communication with air attack and requested an immediate pick up due to the location of the landing zone being in front of the oncoming fire. Once the rotor blades were stopped the pilot asked the passengers to exit the aircraft into the clearing and await further instructions from him. While waiting for a ride out the pilot noted an excessive amount of engine oil on both sides of the engine compartment and tail section of the aircraft. Approximately thirty minutes after landing the three passengers and pilot were picked up by another helicopter and safely returned to the helibase. AMI Comments: I was told it was a hydraulic failure. Today is the first time I heard of the issue being engine oil. The aircraft did not receive any damage from the fire front passage and was removed from the landing spot via sky crane on September 24th, 2012.

SAFECOM 12-1122: On September 28 I was flying a Bell 205A1++ helicopter performing bucket work. I started at around 11:00 and had 2:20 worth of fuel. I made ground contact with someone at 11:15 who was walking along the fire line: approximately 3 miles. The fire was not intense, and was mostly skunking along the underbrush with occasional torching in numerous bug-killed trees. The winds were light and as he walked along he pointed out areas to drop water on. The dip site was very close by and I was able to make 5 minute turns to the fire. Visibility was good and the work was actually going pretty well. Each time there was a flare up, I did a drop on the spot and left a wet line around the snag and then just let it burn. Many times during the next hour I contacted my ground contact to assure where he was, the fire line was very long and as he walked toward the center of it I became a bit concerned because he was so far from the ends of the fire that had no escape route. The fire was backing slowly into the wind and appeared that he could keep moving north as he walked west and stay away from it. In addition he could easily move into the black as it was not heavily burning. My concern was the carpet of downed bug killed trees that were inside the black, because the ones that did ignite burned very hot. Towards the end of the first hour, a fire location spot approximately one third of the way from the anchor point began to behave differently. The downed trees that had not burned were now igniting, and this heat was intense enough that it was actually torching heavily and burning the standing bug killed trees that were already in the black. There were two fire edges, one was the skunking along the brush up to the edge of the black and the other was this second torching edge about 200 yards behind it. During this time my ground contact reached the SW edge, which was as far as he wanted to go. He had me do some spot drops on that end, but I commented that there was a section about 1/3 back that was a lot more active and he suggest I keep working on that and he started his walk back to DP 24. For the next 30 minutes I mainly concentrated in cooling this down and each time after a drop it would relight. I continued to monitor his position along the edge and by using his orange tarp I was able to know exactly where he was. Ten minutes...
later he told me that the winds had shifted and picked up in intensity. I had also noticed this and agreed with him. After the wind shift, the torching section became much more active and I continued to work on it. I told my ground contact that I had 30 minutes of fuel and suggested that he call up another helicopter to use buckets to cover the time while I was gone to refuel. He made this call and we discussed the time I was not going to be able to cool the fire. I continued to work on the torching section, and contacted him to let him know of the different behavior, mainly that there was the second fire line that was burning behind the first fire line, actually re-burning the black area, and with much more intensity. I think I used the term raging. I checked my fuel again and made sure that there would be a helicopter on scene to cover him as he walked out. I made two more drops into the torching area, but it was now burning with such intensity that I was not having much effect. CORRECTIVE ACTION: I then asked my ground contact where he was and was surprised to find that he was still to the west of the torching area. This surprised me since I thought he had already passed the fire to the east, where I felt he should be. I immediately contacted him and circled back to find him. He gave me a mirror flash and I and saw that he was within 500 feet of the face of the raging fire. This torching and the black column being generated was hidden from him by the smoke he was in, as well as the standing timber surrounding him. He had a spot finger to the SW, which was within 200 feet of his position, and another finger to the NE. I urged him to start moving quickly north away from the fire, which he did, and when I circled again the fire was 50 percent closer to his position. The fire was moving in waves of heat toward his position: the air between them was actually shimmering! A 200-300 yard wide wall of trees would instantly ignite, and this in turn was igniting the next row of trees in front of it. My ground contact was centered in this wall, with the fingers on either side. I felt that he was in grave danger. The fire was moving MUCH faster than he was: there was no way out to the SE or to the NW because he was in the center of a crescent between the two fingers of fire. The fire was moving to him so quickly and it was beginning to even affect the fingers behavior, which started to burn much more intensely. I was very, very concerned and tried to relay this concern, but he was sure that he was secure since he was in the black. I knew that the black was not going to be the help he needed. I felt that he was going to need to deploy his fire shelter and that I was going to be doing water drop on his position. I started to pull away to get water but realized that the fire would have been upon him before I was able to make a trip to the lake and back. In front of him, to the north, there was a small opening in the trees and I was able to determine that I could hover into it without damage to the helicopter. I lowered the helicopter until the bucket was on the ground. I hovered and watch the speed he was moving and the speed of the fire coming towards us. The fire was moving very quickly so I strongly suggested that he climb into the bucket so that I could haul him out. He climbed into the bucket and wrapped his arms around the wires as I slowly lifted the bucket vertical. Communicating via radio and when I was sure he was secure in the bucket I flew to the North, perhaps 1/4 mile to an open area where I felt he could walk to safety. I carefully lowered the bucket to the ground and he got out and walked to the trail. I looked back at the spot where we had lifted out of and it was fully torched. The ground he was on was a carpet of dead bug killed trees, the fire was very intense and I’m not sure that even with a fire shelter deployed that the outcome would have been good. I am glad he had the courage to climb into the bucket and relieved that no harm has come to my ground contract. RASM Comment: I believe the pilot’s statement above paints a very vivid picture of what he was seeing. This incident is being reviewed as a Facilitate Learning Analyst (FLA). I believe this will be a complex FLA. Once the FLA is completed it will be posted on the Lessons Learned Site.
SAFECOM 12-1106: The following is a brief description and timeline of events surrounding the aircraft mishap regarding a helicopter incident September 22, 2012. This is from the perspective of the Helicopter Manager/ Helicopter Rappel Spotter Trainee: Our helicopter was launched to perform bucket work on the Bald Mountain fire in the Eagle Caps Wilderness. The pilot was given the Air to Air frequency: information about other aircraft in the area, the ground contact, the Air to Ground Frequency and a Lat/Long for the drop area. Flight following was with dispatch via AFF. The pilot was familiar with the area and had done bucket work previously on the fire. A load calculation for the elevation and temperature had been completed signed and posted as well as a bucket manifest. 15:45 Radio Call from our helicopter to Dispatch “Emergency Landing at Bear Lake”. I immediately began to try to make contact from our home base to ascertain further information. I also sent a crewmember to get our spotter trainer and the Assistant Crew Supervisor. I was not able to speak directly with the helicopter but heard “major compressor stall lost engine RPM barely made it to the ground some blade damage” then “everything is stopped I’m going to be away from the radio and check on the aircraft.” 16:13 another helicopter was dispatched to the incident to do a brief assessment and pick up the pilot. 17:00 Contacted the Regional Aviation Safety Manager (RASM), gave a quick brief of all known information, the RASM requested photos and confirmation that there were no injuries. I contacted dispatch and relayed information to the ground contact at the incident, confirmed no injuries, and requested photos. Contacted the District Ranger, Regional Maintenance Inspector, and crew supervisor. Dispatch would contact 888-4MISHAP. 17:15 the other helicopter, with the pilot, was en-route to the nearest town. Received phone call upon safe landing at airport: had taken some pictures. Pilot Statement: On September 22, 2012, while flying water buckets on the Bald Mountain Fire, I was going to Bear Lake. Just as I was about to put the bucket in the water, I heard a loud bang. At that time, I heard my engine warning go off. I reduced power and tried to fly out. I then released my bucket and tried to increase power to clear the rock cliffs and a second bang occurred and warning came back on as I attempted to make a landing. CORRECTIVE ACTION: The pilot executed emergency procedures in a timely and effective matter. Communication of the event was also timely and ensured a quick response. Necessary information was gathered quickly and the emergency response plan executed. The pilot who was luckily unharmed in the event was extracted quickly and a brief survey of the damage was conducted by the vendor’s mechanic. Notifications were made to the appropriate individuals and further investigation is underway. RASM Comment: I classified this incident is an “Incident with potential”. Due to the fact the aircraft is on a national contract and because it was a serious event I decided to bring in an investigation team from outside the Region. This incident is currently under investigation.

SAFECOM 12-1078: XXX was returning from a longline cargo mission on the Horsethief Fire enroute back to Horsethief helibase. XXX was on the TOLC frequency and had made contact with cargo regarding the fact that he was inbound from Cache Creek drainage for his last load of cargo. While on descent into the cargo area, XXX noticed that his flight path was going to conflict with the path of helitanker XXX out of the retardant dip. He therefore altered his course by pulling up abruptly and turning left. All through the previous cargo missions he noted that the heavy helitanker had been departing to the south and on this particular departure, the helitanker departed to the north. CORRECTIVE ACTION: A meeting was held to discuss the pilot and manager concerns about frequencies and approach and departure paths. Approach and departure paths were set and added to a map for pilots. It was also discussed to have pilots calling into and out of retardant dip sites on TOLC, and to notify all aircraft if they were changing paths. It was also decided that there would be a set location as to when aircraft would switch frequencies to TOLC when coming into the helibase. RASM COMMENTS: No further action required.