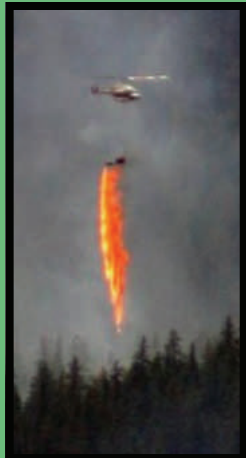




January-June 2010



FOREST SERVICE AVIATION RISK MANAGEMENT



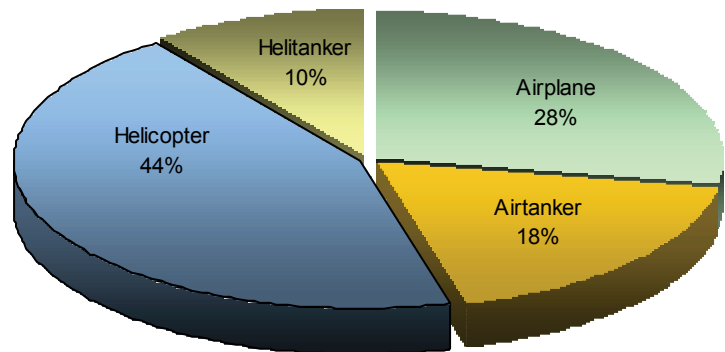
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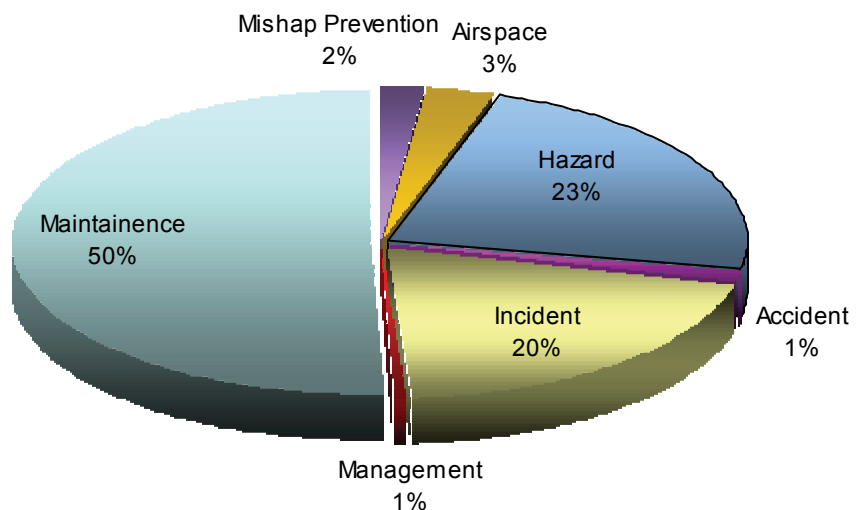
SAFECOMs by Aircraft Type

From January 1 through June 30 there were 140 USFS SAFECOMs submitted, well below the 10 year average of 207. Of the 140 SAFECOMs reported 39 were airplane, 25 were airtanker and 76 were helicopter. The chart below shows the percentage of SAFECOMs by aircraft type.



SAFECOMs 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 SAFECOMs. There were 2 accident, 5 airspace, 38 hazard, 32 incident, 82 maintenance related, 3 mishap prevention and 1 management SAFECOMs reported for this period. Below is the percent of SAFECOMS in each category.



SAFECOM's by Category continued



Rodney Whiteman



Dan Snider



Patrick Jessup

In memory of
Rodney Whiteman,
Dan Snider and
Patrick Jessup.
Our thoughts and
prayers go out to
their families,
friends and co-
workers.

ACCIDENT - We had two accidents in June. Sadly we lost two Forest Service employees Dan Snider and Rodney Whiteman and a contract pilot Patrick Jessup in an Cessna T210L accident in Lock Haven, PA. The other accident involved an air-tanker that landed safely but was unable to stop and rolled through the Rocky Mountain Regional Airport fence and came to rest on 120th Avenue.

AIRSPACE - There were 5 airspace events reported, of which 3 were intrusions, one conflict and one congestion.; Just because there is a TFR it may not keep other aircraft away from the area. Don't let your guard down because there is a TFR, See and Avoid is critical and incident aircraft aren't always where you think they are either.

HAZARD - There were 38 hazard SAFECOMs reported item in this category . Communications accounted for nearly a third of all the hazards reported and most of them were related to radio and repeater issues. Flight following was the second highest category with 6 reports. There were several issues related to PSD machines and the spheres. The new retardant was identified as having some issues with the tanks, floats, and micro motion machines.

INCIDENT - The most reported in this category were dropped loads, 16% (5 reports) and dragged loads which accounted for 13% (4 reports). There were 15 reports classified as other in which many were related to PSD equipment problems and retardant issues.

MAINTENANCE - Fifty percent of the reports submitted had issues associated with maintenance. Engine being such a broad category, again had the most reports with 15. There were 8 reports related to mission equipment and 7 each for instrument and fuel. Routine maintenance does NOT need to be reported in the SAFECOM system. The system is to report any condition, observation, act, maintenance problem, or circumstance with personnel or the aircraft that has the potential to cause an aviation-related mishap.

MANAGEMENT - There was one management report that had to do with the process of receiving current and updated aircraft and pilot carding information on local vendors.

MISHAP PREVENTION - There were three reports, one was finding and correcting a load calculation and the other two were for exceptional risk assessments. Great job folks, keep up the good work.

If you haven't taken the SAFECOM survey, THERE'S STILL TIME.
If you've already taken it, THANKS!

Click here to take
The SAFECOM Survey

SAFECOM
Aviation Safety Communique



SAFECOM's

These are samplings from the SAFECOM's submitted for the month of July. We hope you will select a couple of them a day to discuss and use the lessons learned in your daily briefing. Some of the SAFECOMs have been edited due to length, to read the SAFECOM in it's entirety, please click on the link.

SAFECOM 10-374 Aircraft was in route to William T. Piper Memorial Airport, Lock Haven, PA after completing a portion of FHP Aerial Survey when the aircraft crashed in a residential area of the city approximately 0.2 miles from the approach end of runway 9. The pilot and 2 FHP employees were fatally injured. The investigation is under investigation by the NTSB, the FS is a party to the investigation. **CORRECTIVE ACTION:** Under Investigation by a Forest Service Aviation Accident Investigation Team and the NTSB. [NTSB Preliminary Report](#)

SAFECOM 10-380 A P2V Neptune returning from the Round Mountain Fire on the Arapaho-Roosevelt National Forest had an aviation mishap upon landing at Rocky Mountain Metro Airport. The Tanker declared an emergency on final approach. The aircraft landed safely but was unable to stop and rolled through the airport fence and came to rest on 120th Avenue. There was a small fire in one of the engines after the landing, but was quickly extinguished by airport fire crews. There were no injuries. **CORRECTIVE ACTION:** A Forest Service Aviation Safety Accident Investigation Team has been ordered and will investigate the mishap in coordination with the NTSB. After the incident all tanker operations at the base were temporally suspended. RASM comments: Tanker Base operations returned to operations normal on the 27th. [NTSB Preliminary Report](#)



SAFECOM 10-370 On orientation reconnaissance flight the Air Attack inquired of our position and the helicopter pilot had confirmed altitude and position. Shortly there after, Air Attack was observed at the 2 o'clock position at the same altitude and at a distance from the helicopter of about 300 to 400 yards flying in the opposite direction. Evasive maneuvers were not required in order to avoid contact. **CORRECTIVE ACTION:** Incident was discussed with the pilot, helicopter and helibase managers. The helibase manager informed the AOBD (t) and discussed with Air Attack. RASM Comments: This is a good reminder that folks might not be where they think they are, and keeping situational awareness is tough in a dynamic situation. As part of the resolution to the airspace congestion, the Air Attack operating altitude was raised 1000' to provide a cushion of separation. Thanks for reminding us to be vigilant.

SAFECOM 10-78 Helicopter was enroute to Helibase for rx burning, contacted Helibase on Fire Dispatch 168.6125 Tx/Rx, and during commo with Helibase the dispatch freq went down. Helibase continued commo with helicopter on National Flight Following. (NFF) It was determined that the console at the Helibase and the dispatch office are transmitting but not receiving, and are unable to receive NFF in the dispatch office. **CORRECTIVE ACTION:** Moved aircraft dispatching to the Helibase because there are other FM base units available. Flight Following will remain at the helibase until consoles in the helibase and fire dispatch can be corrected. RASM COMMENTS: Points out the need for back up plans and systems.

SAFECOM's continued.....

SAFECOM 10-330 The aircraft was involved in two separate intrusions. The adjacent dispatch office called informing their aerial recon plane was in our airspace (within the flight following jurisdiction of our dispatch center). They didn't know why and they had no radio communications with him. While the plane never entered a Fire TFR, it passed very close by. The pilot attempted to raise Air Attack but he was busy so the replacement Air Attack that was enroute established radio comm with him and relayed a message from dispatch for the plane to return to base. ATGS felt that the incident was not a significant safety issue. Later in the day we noticed the same plane passing through the NW side of the South Fork TFR. Air Attack was notified of the intrusion and were able to establish radio communications with the pilot. The plane quickly moved out of the TFR and continued on their flight to Safford. This flight was a vendor mission, and involved a different pilot than the morning flight. **CORRECTIVE ACTION:** Follow-up with dispatch showed that the pilot of the morning flight was from out of the area. His initial briefing was done by a state pilot and state jurisdictional boundaries are different from USFS. When dispatch realized the pilot was unclear on the patrol area they had him return to base. He was then briefed thoroughly on forest boundaries. The afternoon incident was corrected in the field through good radio communications. These incidents demonstrate the importance of TCAS, good radio communications, and alert pilots. In each case Air Attack and the pilot were able to communicate to prevent any serious incidents. Kudos to the Air Attacks for being so alert and to dispatch for recognizing a problem and quickly working to correct it. Acting RASM Comments: The Dispatch Center acted quickly and decisively in contacting an Air Attack and getting the aircraft returned for an additional briefing. The second issue was an airspace intrusion into a TFR. While firefighting TFRs are designed to provide a safe flight environment for firefighting aircraft, they are not a guarantee that intrusions will not occur. It is the pilot's responsibility to know TFRs along their chosen flight route: however, there are times when this information is not obtained for various reasons. Because of this, the first line of defense for all pilots is "see and avoid". See [Safety Alert IA 06-04](#). Safety is further enhanced by TCAS, dispatchers, passengers, pilots, etc working as a team to ensure safety of flight. Kudos to the Dispatchers for providing immediate corrective action to enhance safety.

There were several issues raised with aerial ignition equipment and spheres. All aerial ignition operations need to take the time to go into the SAFECOM system and review all the aerial ignition SAFECOMs as well as review these documents: [Safety Alert IA-10-01 Defective PremoFire/Vanguard Plastic Spheres](#), [Lessons Learned IALL 10-03 Foreign Object Debris in PSDs](#), [SEI Industries Technical Bulletin for the Red Dragon](#). Thanks to all the operators and managers that submitted SAFECOMs and sharing their info to bring resolution to these issues.

SAFECOM 10-205 We recently purchased two Red Dragon aerial ignition machines and had some issues when we used them for the first time. First, we installed the exit chute incorrectly so that the spheres could not drop out. We bench tested without the chute so was unaware of our mistake until the PSD operator experienced a jam. He attempted to clear it manually and noticed smoke coming from the machine. He immediately extinguished the fire and returned to the helispot, where we discovered our mistake. The machine worked fine for a fuel cycle then on the next fuel cycle, the PSD operator experienced 3 jams in one chute. The first time, he was not able to clear so they returned to the helibase, we were not able to duplicate or solve the jam. We were aware of the jamming issue caused by removing the hopper and then not removing the two spheres, but this was not what had occurred in this case. The aircraft returned to the unit and continued firing until he experienced two more jams. He was able to manually clear both jams. Upon examining a random sample of Dragon Eggs, we discovered several spheres had a sharp, jagged piece of plastic protruding from the seam area. We had noticed a large number of shavings in the hopper and wondered if some of these protrusions broke off while the spheres were agitated in the

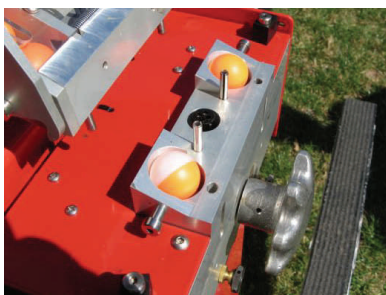
SAFECOM's continued.....

hopper. We suspected that these hard plastic protrusions might be causing the eggs to jam in the chute. **CORRECTIVE ACTION:** If we had bench tested with the chute on, we would have discovered our first mistake. We contacted SEI, the manufacturer of the Red Dragon. They requested pictures of the affected spheres and the ship date {August 2009}. They have agreed to replace the stock of spheres we have.



SAFECOM 10-169 While conducting PSD operations, experienced 2 hang fires within Premo Mark III machine. Specifics: balls were manufactured in 1999, new Prestone Glycol, and qualified PLD Operators. Events: Experienced 2 separate hang fires with 2 different operators. Both events required water flushing and had melted material within slipper block. The first incident was a stuck ball caused when the injection needle hit seam and a piece of the plastic melted in place. The second incident was similar to the first other than in a different slipper block and it actually jammed the machine making the manual clearing impossible. No balls were dropped out of the unit and all fires were extinguished before leaving units. Conclusion: It is unsure why these misfires happened. Options are: 1. Operator Error 2. Material Age 3. Cleanliness of machine. **CORRECTIVE ACTION:** All protocols were followed. Machine was cleaned when ignition was done for the day. No problems found with machine during cleaning except for standard build up, needles were sharp, everything was intact, parts were lubricated. It was decided to review all emergency procedures for PSD operations for future reference. RASM - Looking at PSD SAFECOM trends showed causes of "hang fires" to include: blown fuse {07-0092}; assembly {FS-99-0064, 10-0119}; ball shape {10-0195,10-0153,08-0226} – needless to say there are several differentials to look at when determining the source of a "hang fire" malfunction. I encourage everyone to review these SAFECOM's before undertaking a PSD operation.

SAFECOM 10-153 Two issues using the Red Dragon aerial ignition device. 1st - Upon filling the hopper one Regular PSD sphere was discovered in the hopper along with the Red Dragon spheres. 2nd - the Red Dragon the machine jammed without releasing any spheres. Helicopter returned to helibase. **CORRECTIVE ACTION:** 1st corrective action was to empty the hopper and visually inspect to insure no other regular PSD balls were present. The regular PSD sphere must have been stuck in the bottom of the bag, all bags were removed and inspected, no regular PSD spheres found. Double check bags to ensure unwanted spheres are not inside. 2nd issue was related to taking the hopper off to inspect the spheres. When the hopper was removed it was full of spheres. When the hopper is filled while on the RED DRAGON it automatically preloads 2 spheres onto the top of each slipper blocks into a cylinder. When the hopper was removed and then replaced, it is possible for 2 preloaded spheres in the cylinder to be pushed down. The bottom of the two spheres will then jam in the cylinder between the cylinder wall and the sphere stopper. When the machine turns on, the system recognizes the resistance from the jam and fails. We cleared the jam on the ground, tested the machine and resumed the mission. Upon landing and shut down we easily duplicated the jam again and again with success. Lesson learned: If you remove a hopper containing spheres after it has deposited 2 spheres into the cylinders of each slipper blocks, remove the top sphere of the two preloaded spheres so they won't be pushed down and jam. Sent manufacturer a message identifying the problem and they responded immediately saying the issue was identified in the manual ([see 1st attached pdf document](#)). They have been discussing the concern and are looking at a short term prevention of possibly a warning sticker to put on the machine and in the long term a remedy. SEI issued a Tech Bulletin 4/22/10 ([see 2nd pdf attachment](#)). In the mean time



SAFECOM's continued.....

take a look at the you tube videos. Pass on far and wide.....thanks. National Helicopter Operations Specialist You Tube Red Dragon Jam Videos can be viewed by entering the following in the YOU TUBE search: red dragon jam 3

SAFECOM 10-119 Red Dragon machine was successfully bench tested and installed in the helicopter by the PLDO. Pilot, Manager and PLDO approved install. On first attempt to drop, a jam occurred. Operator was unable to clear jam, notified pilot. Smoke appeared in machine and in cabin, pilot landed at the identified emergency landing area. PLDO pressed water button in machine and extinguished fire. It was discovered that the exit chute was incorrectly installed. There are 2 screws on each bolt of the Dragon chute, a long gold nut and a thin black thumbscrew. The correct method of installation is to line up the bolts on the chute with the holes on the machine, push the chute SNUG against the machine pushing the bolts through the holes. Put the gold nuts on the protruding bolts, tighten, then put the black thumbscrews on the remaining protruding bolt ends as a secondary safety feature and tighten the thumbscrews. The PLDO removed the chute from the storage box with both sets of screws attached to the bolts, and only removed the black thumbscrews from the bolts WITHOUT removing the gold ones. When she put the chute on the machine the gold nuts PREVENTED the chute from sitting SNUGLY against the machine. However enough bolt protruded through the hole to be able to attach the black thumbscrew. Due to the chute being attached this way it allowed the chute to bend backward blocking the exit of the spheres. It didn't matter if the operator turned the hand wheel, the bending of the chute physically blocked the path of the balls. **CORRECTIVE ACTION:** Installed chute correctly and the burn continued without a problem. A few things that may have prevented this is when the HMGB and the pilot looked at the install to approve it, we saw the black thumbscrews but did not look for the gold nuts. Verify that BOTH sets of nuts are on the outside of the chute and tightened securely. When the machine was bench tested and ignition delay tested it was done with the chute off. If it had been tested with the chute on, in the incorrect position the problem would have been caught on the ground. There is no direction in the Red Dragon operators manual that says to test the machine with the chute on. The manufacture should add a part about testing the machine with the chute on and warn of the chance of a jam if the chute is improperly installed. There needs to be a stronger training and transition program between the Premo MK III and the Red Dragon. Perhaps establishing a cadre of Dragon instructors and giving check rides to PLDO operators on the Dragon. This was purely operator/human error. I understand this is a new PSD system and the bugs are being worked out. We have definitely learned some lessons. RASM: Good explanation-Good recommendations. NHOS comments: The Red Dragon manual has two sections for bench testing; in chapter 2 it does not mention having the chute on, but in chapter 7 it does require the chute on for the testing. I will contact the manufacturer and request that bench testing instructions be in only one chapter or if they feel it needs to be in both places, to ensure the bench testing instructions are identical. Please ensure the chute is attached for bench testing.

SAFECOM 10-118 discusses problems with the Red Dragon PSD interfering with radio frequency. Replaced PSD motherboard.

SAFECOMs 10-0077 and **10-0081** identified issues with the spheres causing jams in the PSD machines. See [SAFETY ALERT IA 10-01 Defective PremoFire/Vanguard Plastic Spheres](#).

SAFECOM 10-254 The Tanker Base had loaded 29 loads of D75-F retardant before switching to P100F. We had no problems with these 29 loads of retardant, but we did have Micro Motion Meter (MMM) problems that were unrelated to the retardant issue. The Phos-Chek personnel drained the retardant tank to it's lowest level before switching to P100F. There were 8 loads loaded on P-2V's and 8 loads were loaded on P-3's before issues arose. The issues existed only with the P3's not the P-2V's. The P2V's did experience sheets of P100F coming off their under bellies after their last flights. The P-3's, two at the

tanker base, developed float problems. Each plane has 2 floats and both planes experienced issues on both floats. The diagnosis was the floats were sticking, thus giving the pilots false readings. A phone call was made to the Physical Scientist, Lot Acceptance and Quality Assurance USFS and the R3 Fixed-Wing Operation Specialist, pertaining to this issue. **CORRECTIVE ACTION:** The P-3's washed out their tanks and the Phos-Chek personnel flushed out the retardant manifold and the MMM. Retardant was pumped the next day with no float problems. On the final load that was pumped on a P-3, the reading on the plane and at the base were within 10 gallons of each other. After a day of no pumping of retardant, the plan is to have the Phos-Chek personnel flush the MMM to remove the existing retardant. RASM Comments: There are two things happening here. The first is the MMM is having an unidentified issue with the P100F retardant that makes the accuracy questionable. The second concern is the quantity indicator system using floats found in the P3 also has issues indicating properly with the P100F retardant. Both the aircraft vendor and the chemist are working together to re-engineer the float system to work accurately with the P100F retardant. The safety concern is overloading the aircraft. The airtanker bases have put mitigations in place to ensure overloading does not occur while hardware solutions are being developed. Good communication occurring between the field and National Office to resolve the issues.

SAFECOM 10-257 Aircraft overloaded with P100F as a result of apparent incapability with the new retardant product and the aircraft load monitoring floats. A contributing factor was the MMM had been removed from the system due to an anomaly that rendered it temporarily unusable. **CORRECTIVE ACTION:** RASM Comments: Two airtanker bases are using P110F retardant in Region 3. Both bases have reported issues. There are two things happening here. The first is MMM is having an unidentified issue with the P100F retardant that makes the accuracy questionable. In an effort to determine the cause of the anomaly, the base will try to recreate it with additional mitigations in place. The second concern is the quantity indicator system using floats found in the P3 also has issues indicating properly with the P100F retardant. Overloading the aircraft, as in this case, is the concern when both the float system and the MMM are inaccurate. While hardware solutions are being developed, the airtanker bases have put mitigations in place to ensure overloading does not occur.

SAFECOM 10-362 During flight pilot and crew members noticed a smell of gasoline in the cockpit. Pilot landed at training location and flight crew unloaded. During inspection of all the crew's gear and tools, crew noticed one of the chainsaws was not purged. **CORRECTIVE ACTION:** Upon discovery of unpurged chain saw, the crew properly purged the chain saw and at the end of the training the crew returned to base. On the return flight back to base there was no smell of gas in the cockpit. Crew supervisor was informed of the incident. RASM comments: I applaud this crew for submitting this SAFECOM and sharing with the field that errors can happen to the most experienced crews. Please ensure that that you have your quality assurance checks in place, not only during training mission, but all missions.

SAFECOM 10-435 A manager plus one landed at the dipsite, deployed the bucket and the helicopter began bucket work. As the afternoon progressed, winds started to increase. Approximately 10 drops were completed when the pilot experienced "settling with power" at the dipsite and made the decision to abandon the dipsite and land at the Helibase. Winds were approximately 5-10 with higher gusts and "squirrely" at the Helibase. On the approach, the pilot set the bucket on the ground and began to feed the longline down to the ground. As the ship descended below tree line, the pilot made the decision to release the remainder of the longline, fly out and circle around for another approach. The pilot then successfully landed at the helibase. **CORRECTIVE ACTION:** The longline was inspected and tested and the pigtail from the ship's 9-pin plug to the longline was replaced. Bucket operations resumed using another dipsite later in the day without incident. RASM Comments: Kudos to the pilot for speaking up

SAFECOM's continued.....

about the deteriorating flight conditions. He made a quick risk decision to release the longline when once again he experienced poor flight conditions. Good airmanship and concern for the ground crew. Thanks for the heads up on how fast our dynamic operating environment changes.

SAFECOM 10-424 While conducting aerial ignition burnout operations on a Wildfire, the transmission chip light indicator illuminated. The pilot immediately informed the ignition specialist and PLDO that a precautionary landing was needed. Aerial ignition device was secured and the pilot proceeded to the predetermined emergency landing zone. The Burn Boss, who was also conducting flight following, was informed of the aircraft's situation. The aircraft made a safe landing at the emergency LZ. **CORRECTIVE ACTION:** Once the mechanic arrived at the LZ, the transmission chip plug was pulled and appeared to be clean of any foreign materials. The chip plug was wiped clean and reinstalled by the mechanic. The mechanic returned the aircraft to airworthiness status and made the appropriate maintenance log entry. USFS Region 8 Maintenance Inspector was contacted and informed of the situation. The Maintenance Inspector returned the aircraft to contract. R8 RASM comments: Good procedural methodology and response-a competently handled situation. Good Work!

SAFECOM 10-371 We were notified by dispatch that our helicopter was needed for a search and rescue mission along the river east of helibase, less than five minutes away. We were told there were possibly two injured people and possibly cardiac pulmonary resuscitation in progress. Other aircraft enroute were AA and a national guard helicopter. We were given the state fire frequency and an AM Victor frequency to make contact with the other aircraft. We were flight following on the forest repeater frequency. Enroute we heard AA call dispatch that he was ready for take off from the airport. We then tried to make contact with the guard helicopter with no success. When we arrived over the river we noticed the guard helicopter on the ground next to the river. We unsuccessfully tried to contact him on the three frequencies that we were given. After several minutes on scene Air Attack arrived. We had positive communication with him on all three frequencies. After five more minutes on scene the guard helicopter departed to the south down river with no communication. We then flew up and down the canyon looking for any injured people with no success. **CORRECTIVE ACTION:** Acting FAO Comments CONCERN #1 No contact capability with the guard helicopter, 123.025 has been confirmed as the victor for aerial response by the State Police and Air Medical vendors in the area; #2 Coordination of efforts from ground SAR and aerial SAR is sometimes difficult and under review, discussions are occurring to develop process/procedures for aircraft use; #3 Marginal communications for flight following in a low-level river search. Maintain air attack over an emergency area until all operations have concluded. "This incident highlights the importance of coordination and communications for an event involving so many agencies. Local efforts are concentrated on improving the process for coordination between agencies, improving access to contact info/frequencies to allow field coordination for aerial resources". RASM Comments: Aviation operations get complex quickly and the human element adds to the stress. This event showed we need to do more work in communication and coordination on an interagency basis. Great heads up for others to learn from. Glad there wasn't an incident within an incident for this mission.

SAFECOM 10-363 Military helicopter was conducting marijuana eradication operations, providing aerial support to the assigned ground team. After approximately 40 min into the afternoon flight the aircraft was involved in a bird strike incident with a Red Tail Hawk. The bird strike occurred near the main rotor drive shaft on the helicopter killing the hawk upon impact. The incident did not appear to have affected the helicopters operational performance or abilities. The helicopter immediately landed safely in an adjacent field and shut down without any further issues. A military maintenance crew chief was flown out to the location to conduct an inspection of the helicopter and the main rotor system. The mili-

tary crew chief performed a conditional inspection of the helicopter which revealed there was not any noticeable damage to the helicopter or the main rotor system. The helicopter was flown back to base by the Pilot and Crew Chief without any aircraft operational issues and will have further inspections performed before being cleared by the maintenance officer for continued flight operations. FS employee was picked up by the ground team and driven back to base. **CORRECTIVE ACTION:** contacted submitting personnel and was advised no further damage found at base inspection and aircraft returned to flight status later the same day. Good procedural approach-immediate landing and qualified personnel checking aircraft in the field. Also, good decision making-especially in transporting passengers by ground.

SAFECOM 10-347 After flying 8.0 for the day (retardant), mechanics spotted a BIM indicator on one rotor. Testing showed pressure % was approximately half of what it should be for the blade. Pressurized the blade to see if it would stabilize overnight. Visual and physical inspections of blade and spar didn't result in any cracks/leaks. Pressure overnight dropped below safe standards once again. Chief mechanic notified assistant manager @ 0900 and ask to do a maintenance run-up on the ground. Run-up was denied and mechanic inspector was notified. RAMI arrived with in one half hour and concurred with assistant manager and crew chief, that the BLADE BE REPLACED. NO RUN-UPS.... **CORRECTIVE ACTION:** Blade will be replaced. Run-up checks after RAMI is notified and when all the work is completed, explained and approved. RASM Comments: It was a very good call to not allow the ground run-up, which could have placed helibase personnel in a hazardous situation. The crew is working with the RAMI to ensure proper resolution according to procedure.

SAFECOM 10-332 After dropping off a load of lunches with a 100' long line at H1, the helicopter hooked up to a daisy chain of back haul weighing 650lbs. The load was off the ground approximately 40' when the aircraft was hit with a down draft which made the aircraft drop approximately 5'. The sudden drop made the pilot inadvertently hit the electric release for the remote hook. The load dropped back to the helispot which was clear of any personnel. It was immediately identified the load was dropped by both the pilot and the personnel at the helispot. The load was straightened up by ground personnel, then picked up again by the helicopter and returned to helibase fifteen minutes later. **CORRECTIVE ACTION:** The corrective for this mishap is to have more clearance between your thumb and the button which activates the electric release for the remote hook. Acting RASM Comments: The HIP spoke to the pilot about this incident, the pilot was aware of the wind conditions and was flying the aircraft accordingly. Wind indicators that had been placed at the drop zone on opposite sides (as it was explained) were indicating winds from different directions. The pilot correctly made the decision to circle until the indicators showed a more consistent wind direction, before committing to the drop zone. The sudden and abrupt downdraft resulted in the inadvertent release of the load (pilot's thumb was positioned over the release button at the time of the downdraft). This is the second reported occurrence caused by windy conditions along ridge tops (leeward turbulence). A Safety reminder distributed to R3 F&AM managers along with the Interagency Lessons Learned brief of August 2008 related to mountain wind and turbulence. Thanks to the submitters for sharing time relevant safety information.

SAFECOM 10-337 While performing a long line back haul mission a problem was encountered. A handcrew was assigned to hook two cargo loads to the long line. The first load along with long line was attached without incident at 1st site. At the 2nd site the two personnel from the handcrew were assigned to hookup the load. The net had to be hooked to the lead line which had previously been attached to the remote hook. Weather was clear, with gusty upslope 20 mph erratic winds. The two personnel working to attach the net appeared to be having trouble figuring out how to attach the load. The pilot warned twice

SAFECOM's continued.....

over the radio for the two personnel to hurry up as wind conditions were making holding the aircraft at a steady hover difficult. After approximately 3 plus minutes in the hover the pilot had to pull away as control was becoming extremely difficult. Neither of the 2 personnel were watching the aircraft for any signs of trouble or danger, the crew informed the pilot the load was “ready to go”, the pilot placed the hook on the ground, but again it took longer than appropriate to hook the load. The two nets then lifted without incident, but upon landing at the helibase the remote hook would not release. After aircraft shut-down, remote hook was inspected and found to have come unplugged. The load was improperly rigged which may have caused the plug to become unplugged. There were two cargo nets in this sling load, the rings from both nets were improperly secured into the hook of one swivel. The lead line provided for this mission was improperly secured to the top upper ring of the swivel by the hook of the lead line. The second cargo net also was not prepared correctly. **CORRECTIVE ACTION:** Make sure that all personnel involved in the long line operations are qualified. Stress the importance of this! Don't use trainee personnel in critical performance situations. i.e. high winds, snags in area, etc. If needed and available, strongly recommend staffing helispots with exclusive use helitack crewmembers to ensure qualified personnel are there. Personnel securing cargo loads must be HECMs (currently qualified) or A219 certified individually. Recommend yearly refresher on proper net rigging and long line operations for all hand crews and other fire personnel who will be working on the ground with helicopters. RASM 6/23/2010 Good reminder. We need all personnel working in and around aircraft to understand what is expected of them and ensure that they are trained to a level to be successful. Reference SAFECOM 10-0226 for a trend related to A219 training.

SAFECOM 10-226 We were doing three sling loads of pumps and hose from the sling site to the bottom of McKenzie Creek. The manifested weights were 678, 824, and 1015 pounds. The loads were delivered in the same order, lightest load first. We were informed that there were helitack qualified personnel at the drop site. After completing mission and returning to the ICP Helispot the pilot commented that he had bumped a tree with one of the loads. He stated that ground personnel had informed him of the incident and his comment was that it might happen if the load swings while dropping through the trees.

CORRECTIVE ACTION: I asked the pilot about this incident and he stated that it was the second load that had bumped the tree. He stated the drop site was tight and in hindsight he should have refused to drop the load at that location. He stated that after he had started lowering the load between the trees at the drop point a gust of wind caused the load to swing. He held the load, let it bump a tree to stabilize it and then continued lowering once it swung to the center of the clearing. He stated this is not an uncommon event under such circumstances. I informed him that this is not an approved procedure and to refuse to insert loads into locations unless it can be completed without impacting trees or other obstacles. RASM Comments: Site selection is critical for safe and effective delivery of cargo. Excerpts from A-219 Site Selection - Use the same general criteria for selecting longline sites as you use for any helicopter takeoff/landing area. Please review the guidance in the URL below to ensure that pilot's are not negotiating “marginal” sites. <http://www.nifc.gov/policies/ihog/chapters/2009chapter08.pdf>

SAFECOM 10-289 Airplane was conducting a fire detection/reconnaissance mission over the forest. Approximately one hour into the flight the pilot began to notice issues with the left engine and inconsistent RPMs. Pilot was unable to properly adjust and maintain consistent RPMs for the left engine. Pilot began to trouble shoot issue, with all gauges showing in normal ranges. The prop governor for the left engine was suspected as faulty. The mission was aborted and crew returned to airport without incident. The cowling for the left engine was removed for inspection, and the linkage for the prop governor was found to be disconnected. All the parts were found in the bottom of the engine cowling. It appeared the keeper pin was inserted into the linkage nut, but was not bent over to secure the nut which vibrated loose

in flight. Both engines for this aircraft were recently rebuilt, and it is assumed that the company did not connect the linkage properly. There was no obvious mechanical failure of any of the linkage parts upon inspection. **CORRECTIVE ACTION:** The aircraft was taken out of service as soon as we landed. The Region -3 maintenance inspector was contacted by the pilot to notify him of the issue, and the repairs that were being made. The linkage is not an item that is inspected on a daily basis, nor can it be due to its location and having to remove a large amount of the engine cowling. The pilot will be contacting the company that rebuilt the engine. Repairs were made and a complete inspection of all linkage components on both engines. RASM Comments: Good call. This reminds us that events occur beyond our control: it is how we respond to them that determines our risk exposure. Kudos on taking it a step further to inspect both engines.

SAFECOM 10-235 During climb out to the fire, the pilot noticed an inexplicable change in the aircraft trim. The aircraft was flown clear of the restricted area while simultaneously troubleshooting and talking with a lead plane that was returning to base. It was agreed to have the lead plane "Look Over" the tanker for any structural abnormalities. The lead plane pilot found nothing on the visual and suggested a jettison and return to base. The tanker crew flew to area clear of fire traffic, contacted the fire and advised them that they were returning to the base. The captain chose not to "Immediately Jettison" over structural integrity concerns. The aircraft was operated away from any structures until the problem could be determined. The RAMI was notified. **CORRECTIVE ACTION:** Chief Mechanic performed a functional check flight. The RAMI was informed and put the tanker back into contract availability. RASM Comments: The pilots did a good job responding to the situation. They made informed risk decisions and were able to return without injury to anyone or damage to the aircraft. The mechanics found adjustments to be made on both the rudder and aileron. Proper notifications were made.

SAFECOM 10-231 Due to a medivac with massive head trauma, we had to break pumpkin time to drop injured party off with the Life Flight helicopter. Landed approximately 6 to 10 minutes after pumpkin time. Prior to the medivac mission flight crew looked over the official sunset table. Upon asking for clarification with Dispatch, dispatch relayed pumpkin time was 1910, then corrected themselves by stating pumpkin time was 2010. Knowing the correct time and knowing we were not going to be able to land without going over, the manager and pilot talked and decided to complete the mission due to the urgency of the situation and we would have to leave the aircraft at the Lake for the evening. Helicopter crew back at the district office heard that the aircraft would be staying at the lake and sent two crew members to stay over night with the helicopter. Manager also talked with dispatch so everyone was on the same page. **CORRECTIVE ACTION:** Submitting a SAFECOM, calling dispatch to clear up any confusions and the forest duty officer as well. The next day returned to get the aircraft and returned it to the helibase, and we had an AAR with the Duty officer and the center manager. Called RASM, as well as HOS, so everyone was in the loop if anyone had any questions or comments. It was a safe mission, and the injured person survived. RASM comments: Here the folks in the field assessed the risks and benefits and decided the situation was such that breaking policy needed to occur to save this person's life. Among other things, they looked at pilot skill, landing site, criticality of the patient and visibility conditions. They followed up with an AAR and proper notifications.

SAFECOM 10-189 During a Helitorch operation, while maneuvering near a dead sub-alpine fir, the helitorch brushed against it and the upper most twig at the top broke off. It attached to the helitorch skid frame and was carried back to the torch base. No damage was done to the apparatus. No damage was done to the aircraft. The torch mix was not gelling properly and several previous barrels had been dispensed over the test plot with no fire making it to the trees. This barrel was not streaming fire as it should

SAFECOM's continued.....

and I maneuvered lower to the canopy to try to put it directly on a dead tree, in an effort to try to get some fire started on this project. The contact with the tree was minimal, but I had allowed myself to be drawn into a situation, trying to get the job done that could have had more serious consequences. **CORRECTIVE ACTION:** When engaged in special use operations it is important not to be influenced by circumstances into trying techniques or maneuvers that are contrary to standard safe operating procedures. Should have maintained a safe height above the canopy while dispensing the torch. The fact that the mix was not working should not have led to operating lower than normal, 20-50 feet above the canopy. This event did not end badly, but provides a clear lesson in not letting the mission get ahead of safety.

SAFECOM 10-114 After installation of the TDFM-136 radios, one in the instrument panel and the other by the back spotter's station, a post installation check was conducted. It was found that the TDFM-136 radios caused interference with the glideslope signal, causing the glideslope indicators to deviate and flag. We sent the test results and a radio to Technisonics for evaluation. They replied with TECHNICAL INFORMATION BULLETIN T/B No.: TIBFM 03.1-03, and TIBFM 03-06 dated 02-19-2010 as follows: Purpose: Aircraft cockpit must be clearly placarded "Operation of TDFM-136/136A not approved during instrument approach". Typically the transceiver exceeds the harmonic attenuation specifications outlined in the manual however failures have been reported during the Post Installation EMI Test due to the interaction of the 2nd harmonic of the transceiver during transmit and the input frequency and sensitivity of the G/S receiver during approach. Only solution is an external low pass filter currently in design/testing. **CORRECTIVE ACTION:** RASM Comment: This issue was elevated to the Washington Office Maintenance Inspector for evaluation with other airframes using the same radio. The radio manufacture evaluated their radios in our aircraft on the ground and in the air. Flights were conducted and the results are the aircraft received a placard stating: "Operation of TDFM-136/136A not approved during instrument approach" JUNE 23, 2010 WO issued a Forest Service [Information Bulletin FS IB 10-01](#)

SAFECOM 10-316 Engine oil leaking excessively from the right jet engine of the contract plane during flight. The leaking oil was noticed during flight from Fairbanks, Alaska to Redmond, Oregon. In addition to the leaking oil, the Mechanic, who was working on the plane the previous evening flew back to the lower 48 without a normal passenger seat. He slept on the floor in the rear of the plane until just before we landed. He had to be stepped over to use the rear lavatory. Just before we landed he took the flight attendants seating location. **CORRECTIVE ACTION:** The leaking engine oil was brought to the attention of the flight attendants by several crewmembers of a Interagency Hotshot Crew. The leaking oil was disregarded by the flight crew as no big deal. Once we arrived in Redmond Oregon, my understanding is that the Mechanic checked the right engine and had to add additional oil to the system. My crewmembers felt that their safety was disregarded and that there were obvious mechanical issues that could have endangered 100+ passengers. There was little to no assurance from the flight crew regarding the safety of the flight. AMD Western Region Office researched the issues surrounding this incident and found no maintenance issues with the aircraft. Oil was added at the destination but the amount was within the manufactures tolerances. Vendor staff could have done a better job of assuring the passengers of the safety of the aircraft but the aircraft was properly operated and safely maintained. Good job on the part of the fire crew "If you see something, say something".

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