SAFECOM’s by Aircraft Type

From January 1 through May 31, 2012 there were 113 USFS SAFECOM’s submitted; slightly higher than the 10 year average of 101. Of the 113 SAFECOM’s reported; 31 were airplane, 19 were airtanker and 52 were helicopter related, and 11 were N/A. The chart below shows the percentage of SAFECOMs by aircraft type. Most of the N/A had to do with rappel equipment and non-working radio and repeaters.

SAFECOM’s by Category

Often more than one category an be assigned to a SAFECOM, resulting in a grand total of more than the total number of SAFECOM’s. From January 1 through May 31, 2012 there were 0 accident, 11 airspace, 49 hazard, 31 incident, 48 maintenance related and 7 mishap prevention SAFECOM’s. Below is the percent of SAFECOMS in each category.
SAFECOM’s by Category continued

AIRSPACE - There were 11 airspace SAFECOM’s reported, of which 6 were intrusions, 3 congestion, 1 conflict and 1 procedural. There were two instances of intrusions with military aircraft, 3 with general aviation fixed-wing and one with a helicopter. TFR’s do help but they don’t keep everyone out. “See and Avoid” is critical, especially over incidents where numerous aircraft are working.

HAZARD - There were 49 hazard SAFECOM’s reported. Communication issues were the most reported with dispatch radios and repeater issues accounting for most of them. There were also numerous reports categorized as “Mission Equipment”, which included several issues with rappel equipment which generated two Forest Service Tech Bulletins, FSTB 12-01 and FSTB 12-02.

INCIDENT - There were 31 incident SAFECOM’s filed for this time period. The most reported in this category were “Mission Equipment” related mostly with PSD equipment, dialogue with the manufacturers to correct the problems is occurring. There were two dropped loads, four dragged loads and two bird strikes. Of the 10 reports classified as “Other” 5 were related to rappel training. Another was a marker that blew through the main rotor; a cigarette lighter bursting in a survival packet; a main rotor overspeed; a landing gear tire that broke through a grate on the ramp; and plastic spheres that ignited under a helicopter on the tarmac.

MAINTENANCE - Thirty-three percent of the SAFECOM’s submitted had issues associated with maintenance. There were 7 categorized as “Engine” however; none were engine failures or engine shutdown. Some of the other most reported issues were 6 chip light; 6 instrument; 5 caution light and 5 electrical related.

MISHAP PREVENTION - There were seven mishap prevention reports ranging from new checklists; quality assurance of the rappel program; contractor going beyond protocols on maintenance issue; a pilots response in emergency situation; ground personnel notifying pilot of open door; and working with an tourism operator at the airport in keeping people away from incident helicopters with rotors turning. Great job folks, keep up the good work!

SAFECOM Working Group (SWG) Update

The SWG added a mail feature to the SAFECOM system that will send an email to submitters if they enter their email address. The email thanks them for reporting and informs them the SAFECOM was received. The SAFECOM system also sends an email to the submitter advising them when it is made public with a link to the SAFECOM. An outreach was sent out early this spring asking for input on developing an APP and fillable SAFECOM form. The responses were positive and we are now working on getting them developed. If you have any other suggestions please send them to us through the SAFECOM Comments/Suggestion link on the SAFECOM website.
SAFECOM’s

These are samplings from the SAFECOM’s submitted for the months of January-May. 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 SAFECOM’s have been edited due to length. To read the SAFECOM in its entirety, please click on the link.

SAFECOM 12-0134: PLDO loaded the PSD machine into aircraft in preparation for burning ops. The Pilot and Service Truck Driver had left and were not available to check the power supply to the PSD machine after configuration in the aircraft. The PLDO had loaded the PSD machine solo: (PLDO’s responsibility), however, this action is commonly done with the Firing Boss, Helicopter Manager &/or Pilot present. After the machine and hopper were configured ready for flight the PLDO checked and double checked to assure security of PSD machine and that loading procedures were accurate and checked the gates to make sure they were easy to maneuver as they had been sticking in the past weeks. At this time 4 spheres dropped into the slipper blocks, without the PLDO’s knowledge. The Pilot had not yet returned so the power to the PSD machine was not checked at this time. The PLDO had already bench tested the PSD machine prior to loading it into the aircraft. A ‘PSD Air Operations/Safety GO/NO GO Checklist’ was completed with satisfactory results in the hangar by the Pilot, Firing Boss and PLDO. The Firing Boss discussed his plan of attack for the RX Burn and we discussed pertinent material for conditions, hazards, firing patterns, etc. At 1300 the Burn Boss ordered the aircraft to the burn unit for aerial ignitions.

The Pilot, Firing Boss and PLDO boarded the aircraft, as soon as the Pilot turned power ON to the aircraft, the PLDO realized that the PSD machine HAD NOT yet been power checked in the aircraft. The PLDO checked the hopper feed switch, drive motor switch and glycol pump switch for power, flipping each one on and off, one at a time in that order, just quick enough to ensure power was adequate to each one. About 30 seconds later as the aircraft spooled up, the Pilot and PLDO smelled smoke and the PLDO saw smoke coming up from the tarmac directly under the aircraft below the Pilot’s seat area. The Parking Tender communicated with the Pilot and assisted in picking up the Spheres, there were 2 that were injected and had ignited that were almost completely consumed so they were left melted on the tarmac. The other 4 Spheres did not ignite. The Parking Tender verified there were no more Spheres were on the ground and assisted the PLDO to be sure that the PSD machine was secure. The PLDO put the sequence of events together at this time and all 3 occupants in the aircraft discussed, in cabin, whether it was safe to proceed with the mission or if a shut-down was necessary for further review and investigation of the malfunction. They acknowledged and agreed that it was operator error, not machine error, so they decided to continue with the mission.

CORRECTIVE ACTION: PLDO immediately realized the uncommon series of events that had all lined up which could lead to a very serious mishap. The mission was carried out and afterwards the incident was reviewed and discussed in great detail with Helicopter Manager, Firing Boss, Pilot and PLDO. The PLDO was able to admit mistakes made and noted things that were done that deviated from their personal normal operating procedures, which may not have caused an incident if done individually: however, done in this combination led to a serious situation, that could have turned out a lot worse. The group discussed ways to avoid this situation ever occurring again, such as: leaving an indicator {possibly the hopper off the PSD machine} outside of the aircraft which would signify incompletion in configuration. In hindsight they all agreed that this could have been avoided with better communications: if the PLDO had notified the Pilot and Firing Boss about the problem and what action they should take, they could have made that decision together. PLDO thought it might have been beneficial to load the PSD machine closer to departure time and have more than one person present when configuring to serve as a double. PLDO also contributed Complacency as a factor due to the high frequency of Aerial Ignitions on this unit and to take the ‘PSD Air Operations/Safety GO/NO GO Checklist “slower” every time, assuring that every item is verbalized, considered and approved by everybody involved before it is checked off and signed, NO MATTER how frequent Aerial Ignitions are performed. FAO Comments: I concur with the above corrective action. It is imperative that designed checklists and safety briefings are done diligently to limit the chance of a mishap from occurring. Good helitack crew communications are an important part in these steps. RASM: This is the classic “Swiss Cheese” model of organizational barriers that align to allow the hazard to pass through. The situational awareness of the crew alerted them to the event and prevented further developments, but one can easily imagine “one more step” that might have the potential to cause an accident. Follow your procedural approach and it will serve you well.
**SAFECOM 12-0116:** Today was the first firing operation with a new Premo Mark III. After firing 1,934 acres, the PSD machine was removed from the aircraft and cleaned for the next day operation. During the cleaning process, we noticed the clear housing on the water and glycol pump were shattered and falling out the bottom of the machine. The PSD operator stated he did not notice anything unusual during operation and that the machine operated satisfactorily until firing was completed. There is very little clearance between the housing of these pumps, the slipper blocks, and the cam. During some point of the firing, they must have come in contact, shattering the housing. **CORRECTIVE ACTION:** HMG contacted the manufacture. They stated that the new housing on new pumps don’t seem to be as pliable as the previous red housing covers. They are working with the supplier to correct the problem. Meanwhile, they are sending new pumps to replace damaged parts. **Update:** After discussion between HOS, HMG and manufacturer, it was determined that the best course of action is to return to the factory for a complete check. There were a few similar reports with issues with machines and/or the balls, click on the following links to view. [12-0087, 12-0119, 12-01741]. Thanks to the aerial ignition group for exceptional reporting!

**SAFECOM 12-0110:** Helicopter lifted off from helispot en route to Burn Unit for recon of the prescribed burn conducted earlier in the week. While en route the Burn boss was notified to find new lines to cut off the burn. After locating new lines the helicopter was released back to the helispot to begin bucket operations supporting new line construction. A small lake adjacent to the burn was used as primary water source. On the way back to lake from the 11th water drop the bucket inadvertently released from the aircraft. At this time the pilot got coordinates for ground crew to locate bucket as he returned to helispot. The bucket landed a short distance outside the edge of the lake and was routed back to helispot. The bucket was inspected, one rod was broke and another slightly bent. The mechanic then inspected the cargo hook and noticed that the sleeve was loose where the manual release cable {PN 268-004-00} attaches to the belly hook. Upon further inspection he noticed that the sleeve was actually broken, which allowed the empty bucket to be released from aircraft. We suggest that any older cable with the -00 part number be replaced as soon as practical with the improved -01 cable. **CORRECTIVE ACTION:** The manager contacted the Maintenance Inspector and Regional Helicopter Ops Specialist and informed both of the inadvertent bucket release due to cable failure. Mechanic suggest that the PN {268-004-00} part be replaced with the new 01 part and also put small white paint around the sleeve and cable to observe any slip in cable for inspection. RASM: Always a good idea to be suspicious of older parts and portions of system subject to wear from use-recognizing that many things don’t reveal a weakness until a failure occurs. Good work identifying the malfunctioning part.

**SAFECOM 12-0113:** After take off and gear up, the right prop governor failed and the pilot declared an emergency, circled around and landed the aircraft without incident. Maintenance is evaluating and most likely changing the prop governor. **CORRECTIVE ACTION:** Aircraft in Fresno made some adjustments to the low pitch stops and ground tested the pro governor several times and then pilot did a test flight at 12:45 on the 7th of March. Aircraft flew great and has been released for flight from maintenance by regional AMI. Torque charts for the engine was with in limits. RASM: Pilot did an excellent job of landing the aircraft, he had only performed the engine out in a simulation environment.

**SAFECOM 12-0285:** During a Climb from 8000 to FL 220, around 13,300 ft. MSL an initial Master Warning light flashed along with the ALT Warning Annunciator. Approximately 5 seconds later both lights extinguished, 15 seconds later both lights illuminated and the passenger oxygen masks deployed. I immediately notified Air Traffic Control to get a lower altitude and vectors to Airport. **CORRECTIVE ACTION:** During the initial climb the pressurization was performing as it should. After the masks deployed I checked to see what the pressurization controls were doing. All switches and settings were in their normal positions and lights cleared once below 10,000 Ft MSL. No other issues occurred during flight. This plane came out of phase maintenance 2 weeks prior to this incident. This was the first pressurized flight since maintenance was completed. Our Maintenance Inspector contacted the facility that performed the maintenance and reviewed what actions the company performed. After talking to the company a test flight was flown and same issue occurred at 10,500 ft. MSL. The plane holds pressure until around 10,000 ft. MSL then the differential pressure drops to zero and the cabin rapidly climbs to the planes outside altitude. It was determined to take the aircraft back to the facility that performed the maintenance and have one of their mechanics fly in the plane to determine what is causing this issue. RASM: This incident was well handled in a professional manner, utilizing the proper sequence of events taken to ensure the safety of the occupants and aircraft in an emergency. AMI - The aircraft was returned to the maintenance facility where it was determined the pressure dump valve had inadvertently been activated during routine maintenance. The valve was reset, maintenance functional flight completed, and the aircraft returned to service without further issue.
SAFECOM 12-0284: As ATGS, I had to return to the airport after my rotation above the fire with no relief ATGS available. I directed the dip point managers to staff the main lake to monitor the Helitanker. I confirmed with the IC that communication with the aircraft was to take place between the dip point and fire. I believe the IC understood and agreed with this arrangement and that positive communications for flight following was established to allow for a safe working environment for the aircraft. With that, I returned to the airport and landed at 1305. At approximately 1450 hours, the AOBD called me by phone and requested I return to the incident. The helicopter could not be reached by dispatch on Flight Following and that he did not have any communications with a Dip Point Manager. Upon arrival, I was able to determine that the personnel from the Helitack module had left the Lake dip point and returned to helibase sometime after my departure (after setting them as the communications link at the Lake). Shortly after my arrival an individual showed up and functioned as the Dip Point Manager. After reestablishing positive communications with the Dip Point and Incident and concurrence of the IC, I returned to the airport at 1720. CORRECTIVE ACTION: I advised unit FMO of my concerns regarding the Helitack Crew leaving the Lake dip point without being directly relieved by someone else to monitor operations. He advised me that the Helicopter Manager stated it was not clear what they were to do as he was at helibase and the communications were garbled on air to ground. While I cannot verify that issue I made it very clear to his personnel on site they were to maintain communications with the helitanker at the Lake. In order to function safely, personnel need to be at that location as there are structures and other obstacles in the approach and departure paths. Given the circumstances outlined above, I believe further review of this incident needs to take place regarding what I consider to be a hasty decision to leave the dip point unstaffed particularly when the dispatch office could not call the aircraft as the flight following net was experiencing problems. RASM comments: Positive flight following is critical for emergency response should anything go wrong. There were several places where had communication gone better this event would have been avoided. Air Attack talked with helitack crewmembers and the information was not given to the Helicopter Manager. The IC (I) was not fully aware of the flight following plan using the helitack crew. The helicopter had been released from the fire and the Manager was not aware the Type 1 might come back for more bucket work. The Air attack was not aware that the helicopter and module had been released from the fire. Everyone operated with the best intentions, but with only a portion of the information. The key lesson is communication. Make sure folks know what you know, especially for information that might be critical. Together bits of a picture make the whole scene. That is where we should strive to operate within.

SAFECOM 12-0282: Dispatch unable to establish communication with aircraft requesting Agency flight following due to ongoing issues in radio and network system inability to transmit. CORRECTIVE ACTION: Aircraft called neighbor dispatch and established commo. Dispatchers from first dispatch center used handheld outside dispatch building to make initial contact with the aircraft and it was decided that neighbor dispatch would continue flight following. Radio/network ticket will be submitted. RASM comments: This has been an ongoing issue not just with this dispatch center but with several within the Region. CIO is not addressing tickets in a timely manner or one that resolves the issue. The whole network communications concern is being elevated to the Regional Forester’s Office. Good response by the aircraft to establish communication with another dispatch center and by the first dispatch to follow up via handheld to ensure flight following was in place. Earlier reports highlighted the need to have a continuing operations plan in place to address loss of radio/network functions.

SAFECOM 12-0277: When landing at the helispot for the first time, an orange ribbon flew up through the main rotor. Upon inspection by the pilot, there were no marks or evidence of damage to the rotor. When we returned to helibase, the mechanic also inspected the rotor, and found the same results. CORRECTIVE ACTION: Anything used to identify helicopter landing areas need to be staked down securely. This needs to be stressed to on-the-ground firefighters. Maintenance Inspectors, RASM, and COR were notified. RASM was concerned that agency personnel flew on helicopter prior to mechanic inspection. Lesson learned that after possible or actual rotor strike, operations should be suspended and NO agency personnel allowed to fly prior to mechanic inspection and approval for return to contract availability. Acting RASM comments: RASM spoke to crew about the importance of stopping the mission, having a A&P inspect the aircraft, and having AMI returning the aircraft to availability status. In addition, the regional HIP spoke to the pilot and discussed the proper process when anything goes through the rotor system. For clarification the ribbon was a 12 inch by 3 foot marker panel. This is a good lesson learned for all.
SAFECOM 12-0258: Helicopter was using Dip Site, a 15,000 gal Heliwell, to obtain water for the Fire. While HXXX was over the heliwell and settling to draft water a large wind gust from the SE, approximately 15-20 knots buffeted the aircraft blowing the snorkel to the left of the aircraft pushing the snorkel outside the heliwell. The snorkel contacted the heliwell and as HXXX was lifting to re-position the snorkel the top edge of the power head caught on the upper lip of the heliwell. HXXX moved left to free the power head. HXXX returned to HLB to inspect the snorkel. Examination of the tank showed minor damage, one panel bent approx 1/4". No other damage was noted. The snorkel sustained damage, upon inspection it was found the the cable holding the snorkel to the aircraft was broken at the aircraft and the power head. CORRECTIVE ACTION: Discontinue use of the tank.

RASM comments: This is the second snagging event for this heliwell. Briefings continue to emphasize snagging the dipsite as a hazard. The dipsite was shut down until further mitigations could be put in place that included optional pieces to the heliwell. We will add this to the discussion for the manufacturer and cache on reducing snagging hazards to the equipment sent out to incidents. Certain snorkels have characteristics that lend themselves to snagging. Being aware of all the factors and mitigating what we can are important aspects to reducing risk.

SAFECOM 12-0246: While performing bucket drops, the Bambi Bucket hit the side of a portable retardant tank {PRT}. The bucket’s cables snagged on a bracket welded onto the PRT and pulled it off of the PRT. Two cables were replaced on the bucket, one with scrape marks and one with scrape marks and two wire threads frayed. The brackets, in addition to a bolt and wing nut, are used to hold the PRT together before a cable and turnbuckle can be fitted around the PRT to provide structural support when the PRT is filled. After investigation, the bracket was found to be welded onto the PRT by the manufacturer upside down, causing a 90 degree angle perpendicular to the tank on the bottom of the bracket. The PRT set-up instructions also said to back off the wing nut after the cable is in place, but doesn’t say to remove the bolt and wing nut, creating another snag hazard. A Safety Alert was issued in May 2007 {IA 07-02} that addressed snag hazards in heli-wells after previous snagging events. CORRECTIVE ACTION: The wing nuts and bolts were removed from the brackets, and a grinder was used to cut the 90 degree angles to 45 degree angles. RASM comments: Along with modifying the flanges with a taper, all pilots were briefed on hazards of snagging the dipsite. Many dipsites have snag hazards, but heli-wells seem to have more than their fair share. We will follow up with the cache to have equipment checked before it goes out, folks should know about the possibility of the manufacturing defect. Thanks for reporting to raise awareness. SAFECOMs12-255 and 12-258 identifies similar snagging problems with Heliwells. A Tech Bulletin IATB 12-03 was distributed due to the problems reported on the Heliwells.

SAFECOM 12-0154: T-xx was taxiing {while loaded with retardant} on the former FBO ramp just east of the Airtanker Base. While maneuvering on the ground the Right Main landing gear tire broke through a drainage grate and sliced the tire. The Pilot continued forward away from the broken grate, shut down the aircraft and called for the Mechanic. After inspecting the aircraft the Pilot and Mechanic saw no further damage beyond the R/H tire and requested a maintenance break to have the tire replaced. The pilot stated that during taxiing operations the grate was not visible from his vantage point in the cockpit. The Airport Operations Manager was consulted and the load bearing weight was confirmed to be above that of a P2V at full takeoff weight of 80,000lbs and single wheel. Upon closer inspection the airport found no obvious flaws with the broken grate. The airport has inspected the remaining drainage grate in the ramp and found them to be in good condition. CORRECTIVE ACTION: After consulting with the Airport Manager, to address the issue and mitigate any further occurrences the airport will paint all drainage grates with high visibility paint on a black background to make the drainage grates more visible. In addition the Airtanker Base Staff will address the incident during crew in briefings to the Tanker Base. RASM the R2 maintenance inspector was in the loop on all repairs and returned the aircraft to contract availability. The painting of the grates will be monitored to ensure completion. Please include this SAFECOM in your morning briefings at Airtanker bases to brief accordingly should aircraft reload from KBJC in the near future.

SAFECOM 12-0153: While providing Air Attack over a fire a small bird struck between pilot and co-pilot window. Flew approximately 20nm back to airport as a precaution. No controllability issues and landed uneventful. After inspecting aircraft no visible damage to aircraft. Believe bird rolled off top of aircraft. Aircraft returned to service. CORRECTIVE ACTION: Made all pilots and crews aware of potential bird activity over the fire. Another instance of a bird strike was reported in SAFECOM 12-0158.
SAFECOM 12-0271: At 0945 Company notified Dispatch that the pilot heard a "muffled pop" in the back of the aircraft in route from Craig to Petersburg Visual Flight Rules {VFR} at 3,500 feet. The pilot was the only "soul on board". Sometime between 0825 and 0910 a muffled pop got his attention. He heard the noise and smelled something which dissipated quickly. He couldn't identify the smell. It was the return leg and there were three FS Nomex flight vests lying on the floor of the aircraft. There was residue on the Nomex vest and in the pocket. There was no smoke or flame. The vests were not warm to the touch. In the pockets was the standard emergency survival gear provided in the flight vest. The survival gear had been inspected in February. The small vacuum packed bag carrying the MK disposable lighter had burst open. The metal portion of the lighter was separated from the plastic portion. The lighter appears to have been bought off the shelf. No wear and tear on the outside of the bag or lighter. The pilot reported nothing unusual about the flight or in the handling of the Nomex vests. In forty years of flying this was the first time he'd had something go "pop". CORRECTIVE ACTION: FAO Comments: Dispatch notified the AFAO and FAO. FAO requested the Forest Safety Officer to conduct an immediate investigation. A-RASM, Forest Supervisor, Regional Forester, RASM and RAO were notified. Findings from the Safety Officer investigation initiated an immediate recall of all foreign made clear plastic disposable lighters from the flight safety floatation vests. The following day a decision was made to pull all lighters from the survival vests. All lighters will be replaced as soon as possible with safer lighters. Employees are reminded that matches are still available in the vest survival kit. Some vests also have a magnesium fire starter system available. RASL Comments: Research reveals this brand lighter has had several failures noted to the CSPC and a suitable replacement is currently being evaluated to replace these lighters.

SAFECOM 12-0122: While tracking animals, NXXX a Piper Super Cub made an precautionary landing due to an unknown engine problem at Manzanita airport {private}. There was no damage to the aircraft or injuries to people. The airport is 14 miles east of Mariposa and the pilot has secured the aircraft. CORRECTIVE ACTION: On 3/15/2012, Regional AMI assisted a mechanic and verified the problem to be a carburetor intake bowl gasket to shrink due to 6 months of sitting on the ground. We tightened the bolts and it ran smoothly. We took apart the carburetor to make sure that the gasket was not damaged and verify that the threads on the bolts were not stripped. Everything looked good and we reassembled the carburetor and secured everything. We ran the engine and all systems checked good. Pilot flew the aircraft back to Mariposa without incident. RASM: Pilot made an excellent decision in landing rather than trying to make it back to his departure airport.

SAFECOM 12-0274: Helicopter was working in DIV F on the Fire. Helicopter was reinforcing a line that extended down a ridgeline to an adjacent road. Winds were from the southwest about 15-20kts. Helicopter had positive contact with ground forces and was setting up for their last drop of the evening. They were told to have their drop tie in with the end of their previous drops. The captain was looking outside the cockpit to line up the drop and the copilot would momentarily look out the back to help the captain with lining up and then return to scan the instruments. Once they were lined up and made the drop the copilot returned again to his instrument scan and noticed on the Nr gauge, a main rotor overspeed of 117%-118%. The copilot quickly pulled in some collective to arrest the overspeed and bring the rotor rpm back to normal operating range 110%. Helicopter returned to helibase and shut down for the evening. After landing the crew chief, helicopter manager, and Regional Maintenance Inspector were notified of the overspeed. CORRECTIVE ACTION: Because the rotor RPM went above 116%, a visual inspection was required and performed the following morning. No discrepancies or damages were found and the aircraft was test flown and returned to contract availability at 13:00 on 5/24/2012. RASM comments: Good catch on the part of the Co-pilot. With everything a pilot has going on, it is easy to lose focus on flying the aircraft. The lesson for pilots is to not be so focused on targets or the mission that situational awareness inside the cockpit is lost. The lesson for the ground folks is to remember that pilots have a lot going on. We need to choose targets well and be clear and concise in dealing with pilots to allow for highest human performance.
SAFECOM 12-237: While on short final for the rappel site a rappeller pointed out to the spotter that the rappel door anchor retaining nut keeper pin had come loose from the keeper and the keeper was working its way out of the retaining nut. The spotter had checked all retaining nuts prior to the previous rappel (the first of the cycle) and found none out of place. **CORRECTIVE ACTION:** The spotter made the decision to abort the rappel and return to Salmon. The spotter informed the pilot of the occurrence and the decision to abort. Spotter contacted Salmon Airbase and had the mechanic meet the helicopter at the pad. The mechanic repaired the bent keeper pin and reinstalled it. Rappellers exited the helicopter and went through boarding procedures again. Rappel was performed without incident. **RASM COMMENTS:** Good catch, and good decision making by spotter.

SAFECOM 12-225: Helicopter left Salmon Helibase for the Corral Crk. drainage to perform training rappels in typical terrain. The first stick rappelled into the rappel site without incident and the second stick followed. Once on the ground the left side rappeller on the second stick commenced the unhooking procedure to release his snap hook from the descent device. After several unsuccessful attempts, the rappeller assessed his situation. He made sure that he had slack on the rope, withdrew his raptor knife, and cut himself away. The spotter derigged ropes and the helicopter returned to base without incident. **CORRECTIVE ACTION:** The rappeller left the snap hook, harness, descent device, and rope in place to be examined once back at the helibase. The snap hook was found to be faulty due to the ability of the gate to slide side-to-side along the gate pin. When the gate was slid to rappeller’s right, the detent pin release did not operate properly and the gate was stuck in the closed position. Too great of tolerances on the snap hook gate kept the gate closed not allowing the rappeller to release from the descent device, and therefore, the helicopter. The rappeller made a good decision to wait for slack and cut away after several attempts release the snap hook, lessening exposure to the helicopter and those aboard.

**SAFECOM 12-0194:** This SAFECOM is related to rappel equipment. During the Spotter and Rappeller recertification training sessions at the John Day Airbase at least four Bourdon 1210 BE snap hooks were removed from service because of sticky gates or gates not opening correctly. The sticky gates appear to be from a detent pin/gate interaction where the detent pin actually keeps the gate from springing shut, a contributing factor to this appears to be how wide the gate is and its interaction with the shank of the snap hook. A second issue arises when the gate is too wide to the shank of the snap hook and it would not allow the detent pin to clear cleanly, causing the gate to not open. **NASS comments:** MTDC and the WO HOS are developing an equipment Bulletin regarding the issues identified with these hooks.

**SAFECOM 12-0193:** During rappel recertification training from a high tower simulator, a rappeller was instructed to perform the emergency tie-off procedure. While moving the rope with his right hand from the rappel position to commence the tie-off, the weighted rope contacted the knurled barrel gate lock of the US Rigging snap hook. The movement and contact of the rope on the gate caused the barrel to spin and then slide up, unlocking the gate. The rope force then opened the gate and the rope entered the snap hook. The rope then slid free of the gate barrel and the gate closed and locked with the rope now passing through the snap hook. Earlier, a second event also occurred during the spread eagle procedure of the emergency tie-off. While transitioning from the lock-off procedure to the spread eagle position, the rappeller’s rope inadvertently and briefly contacted the knurled barrel gate lock. The barrel lock reacted by spinning and sliding up, unlocking the gate momentarily. The gate never opened and the gate locked immediately once the rope separated contact with the barrel lock. **CORRECTIVE ACTION:** HOS comments: The US Rigging snap hook was, at the time, under evaluation as a potential replacement for the Bourdon 1210 hook. The unexpected interaction of the US Rigging snap hook with the rope during standard procedures and the inadvertent gate opening while under suspension prompted the decision to cease further evaluation of the device. The training proceeded using the approved Bourdon 1210 hook. **NASS comments:** MTDC and the WO HOS are developing a equipment Bulletin regarding the issues identified with these hooks.

There have been numerous SAFECOM’s on rappel equipment generating two Forest Service Tech Bulletins; FSTB 2012-01 and FSTB 2012-02. Other similar SAFECOM’s are 12-0226, 12-0224, 12-0223, 12-207, 12-197, 12-196, and 12-195. The Rappel Program has done an outstanding job of reporting and are to be commended. THANKS!
SAFECOM 12-0143: On April 1, 2012 The tanker was called in 4 days earlier than the MAP start due to the extreme fire danger. When I met with the pilot, he asked he could do a water drop to re-familiarize himself with the airtanker and check the tank system. After checking with dispatch to see if anything was going on and to inform them that the tanker would be monitoring National Flight Following in case a dispatch was imminent. The airtanker was then loaded with water and did a successful drop in the emergency salvo area within the 5 mile airspace surrounding the airport. After the drop, the Dispatch Center received a request for an airtanker loaded with retardant to a fire within the zone. The tanker responded that they could land and load retardant and proceed to the incident. Upon landing at the Airport, the right main tire blew up with the tanker skidding to a stop on Runway 21. Crash/Rescue procedures were started but were unnecessary because after the aircraft had stopped the PIC used prop wash to extinguish any flame and to cool the right main tire. A NOTAM was issued until 1500 hrs so the runway could be inspected for FOD, the tire could be changed, and the tanker towed off of the runway which was all accomplished by 1330 hrs. After required inspection by the certified mechanic, the tanker was returned to contract availability by AMI. Then the tanker was then loaded with retardant and found to have a leaking brake bladder on left main. The bladder was removed and replaced within an hour and returned to contract availability again by the same AMI. **CORRECTIVE ACTION:** Tire and Bladder replaced. 

RASM comments: An early season reminder to expect the unexpected. Glad the pilot responded to the situation well and there were no injuries or damage. Thanks for submitting the report for trending. No further action required.

SAFECOM 12-0267: Air Attack mission working inside TFR 2-2666 over the Hewlett Fire CO-ARF-000228 at 9000`, in a right turn just North of Seaman Reservoir observed a aircraft off our nose at the same altitude coming at us from the S/E. Our pilot took avoidance actions to avoid an inflight conflict. The other aircraft passed off our left wing by about 1000`, initially appeared to be a motor glider {due to wing span}. We made a right turn to re-acquire aircraft to insure separation, the aircraft was continuing on a N/W heading, we passed behind and observed a T-tail, white, with side by side windows in the passenger cabin, and a long wing span similar to a motor glider. Attempted radio communication on 121.50, and 122.75 with no contact. Kept visual contact as the aircraft continued through TFR to the N/W, made no further attempts to acquire N number. **CORRECTIVE ACTION:** Verified the TFR was active and posted. {via the internet} Notified all aircraft working the fire of the intrusion and to be vigilant for non-fire aircraft in the TFR Notified operations of the incident. RASM: Good reminder to identify FBO’s and other GA users in order to promote the existence of local TFR’s. Site visits and discussions can educate users that might not routinely check NOTAM information. Verified the TFR was active and posted. {via the internet} Notified all aircraft working the fire of the intrusion and to be vigilant for non-fire aircraft in the TFR Notified operations of the incident.

SAFECOM 12-0200: Following a main rotor overtorque on 4/29 {see SAFECOM 12-0182} the vender, believing the torque readout was unusually high, elected to install a replacement torque gauge transducer. During this time the vender realized the Diamond J torque gauges and transducers were designed to be a matched set and the units currently in the AC were mismatched. The A&P notified the HMGB who then contacted the AMI who took the AC off contract until the issue could be corrected. **CORRECTIVE ACTION:** A correctly matched transducer was installed by the A&P and a ground run up and test flight completed. AMI was contacted and AC was put back on contract. Good call by everyone involved. The vendor initiated the appropriate corrective action and notified the manager as soon as the error was discovered. R-8 AMI RASM: Good catch by maintenance.

SAFECOM 12-0184: During morning checks, Mechanic found Jury Strut Switch lever arm was on backside of Jury Strut latch. **CORRECTIVE ACTION:** Removed lever arm, reposition, & adjusted switch. Returned to contract availability per AMI. RASM Comments: Great catch. Thanks for reporting to share the word. The a/c required a gear swing after removing and reinstalling the proper direction. No further direction required.
SAFECOM 12-0120: I was scheduled to lead a Fixed Wing flight for snowmobile monitoring across the Forest. After reviewing the Go-No Go check list with the pilot and participating in the pre-flight briefing, we taxied and took off. Shortly after lift off, we contacted dispatch and indicated we were off the ground and were told we were positive AFF. Shortly after this, the pilot tapped a gauge on the dash before me, said something, and started to turn the plane. I did not hear what he said right then as I was adjusting my headset as he spoke. After getting my headset adjusted, I asked what the issue was and he said that the manifold pressure-fuel flow gauge was stuck on high, it had worked during the pre-flight check, but it appeared to become stuck during takeoff. He said he believed that the engine was operating properly and that it was only the gauge that was misreading. I could observe that the engine was not struggling in anyway. We checked in with dispatch indicating that we were returning to the airport. We landed with no problems and I asked the pilot to explain the problem again, which he did and added on that he believed it was that the plane had not been used much lately. He said this was easily fixable and that they would fix it, but if it stuck again we would land and abort the full mission. I told him that there was no rush for fixing and that I wanted to see that safety was kept as the priority. We exited the plane: I went to a nearby picnic table to regroup, while he worked with the mechanic on site to repair. I reviewed my Go-No Go check list and looked at the IRPG but didn’t see anything to direct me in this situation. I called my dispatcher and advised of the details. I explained to dispatch what happened, and then I asked her to see if I needed to now have some type of approval to fly since we had this minor incident. I suggested that the aviation officer be consulted, because I did not know who has what authorities, etc. She said she would follow up. I then called ground resources who were in the process of staging to coordinate with me to let them know there was a delay. A few minutes later I got a call from the aviation officer on the adjoining forest, and I recalled that the adjoining forest was assisting with aviation management as we have a vacancy. FAO took down the information of the incident and said they needed to call someone and to standby. About 10 minutes later the pilot approached me and said the gauge was fixed {I had seen the mechanic working on the plane and do an engine run-up.} I explained that I was waiting for approval to fly again. About 15 minutes after this I called dispatch to see if there was any progress. My dispatcher told me that the forest FMO had indicated this was a minor issue and I should be ok to fly but that we needed to get the airplane mechanic to talk to the USFS mechanic/inspector: I asked for the contact info in order to speed this process up, which was not known, so I said I would see if the operator had that info in our file there. I walked into the office, the operator said they didn’t have the contact info, and right then the mechanic walked around the corner and said that he was talking to the Dispatch Center Manager who was giving him the go ahead. Because I understood that dispatch was approving us attempting the flight again, I then proceeded with the pilot to prepare to restart our mission. I had not heard back from the FAO, but took my dispatch direction as enough. We proceeded with the take off, the gauge worked properly, and all of the flight operations were normal. The flight concluded at approximately 1440. I called dispatch to indicate that I would be traveling to their location in order to do a thorough debriefing. At dispatch I related the story to the main dispatcher and the Forest FMO. CORRECTIVE ACTION: FAO Comments: The FWFM did the correct action by returning to the airport, holding on the ground and contacting Dispatch prior to resuming flight. The assisting FAO was in contact with the FS Maintenance Inspector and had informed Dispatch that their approval was needed prior to commencing the mission. Dispatch was then contacted by the company’s Maintenance Inspector and believed that they had the authority to return the aircraft to contract service. They informed the FFMO {the current acting FAO} that the Maintenance Inspector had indicated that the aircraft was available for return to availability. The FFMO told Dispatch they could commence with the flight. Meanwhile, the assisting FAO was in contact with the FS Maintenance Inspector who approved the aircraft for return to contract availability. An AAR was conducted and several items were identified including the need to ensure that Dispatch and FWFM understand the process for returning an aircraft to contract availability, include information in WILDCAD specific to dealing with aircraft maintenance issues, reiterate to FWFM and other aviation users that the right answer is always to land and contact dispatch when maintenance concerns arise and to ensure that during the ‘off’ season {i.e. outside of fire season} ensure that FAO is informed about the flight and has identified who is available to be contacted in regards to maintenance issues. RASM Comments: A PASP was completed for this mission and the FWFM met qualifications less A-110 currency. The parties all completed the required actions but communications between the proper parties ended up confused. Flights conducted with maintenance deficiencies is covered in an Interagency Aviation Safety Alert IA 06-02, The contract section C.23C, and the A-106 Aviation Mishap Reporting course electronic version but still can be confusing to non-frequent aviation users. Kudos to the pilot for realizing the flight could not continue and the observer for making contact with dispatch and their contact of the FAO to insure proper procedures are followed. We need to emphasize maintenance deficiencies procedures during training and review with aircrews to reinforce policy.