



**Fire and Aviation Management  
Interagency ASAT (Aviation Safety Assistance Team)  
Summary for Great Basin GACC, August 20th to 30th, 2016**

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**ASAT Team members:**

Vince Welbaum	Colorado State Aviation Unit Chief, Team Lead
Jim Nester	Airworthiness Safety Inspector, USFS WO
Gil Howell	Helicopter Inspector Pilot, USFS R6 Pacific Northwest Region
Nick Hough	Aviation Safety Manager, USFS R9 Eastern Region
Matt Woodwick	Fixed Wing Operations Specialist, State of Minnesota DNR
Scott Fry	Helicopter Operations Specialist, USFS R8 Southern Region

**The Team conducted in-briefings/out-briefings at the following Locations:**

Fish Lake N.F. Interagency Dispatch Center Richfield UT (SEAT I/A Ops)	<u>08/20/2016</u>
Briggs Fire Helibase, Beaver UT (T3 Helo PSD Ops)	<u>08/20/2016</u>
Strawberry Fire Helibase, Baker NV (T3 Incident T3 CWN Helo Ops)	<u>08/21/2016</u>
Elko Interagency Dispatch Center Elko, NV (Air Attack I/A Ops)	<u>08/21/2016</u>
Battle Mountain Tanker Base, NV (SEAT I/A Ops)	<u>08/22/2016</u>
Winnemucca Tanker Base, NV (SEAT I/A Ops)	<u>08/22/2016</u>
Rock Hill Fire, NV (2 T3 Helo Ops)	<u>08/22/2016</u>
Boise Tanker Base, ID (MAFFS, SEAT, Air Attack)	<u>08/23/2016</u>
Twin Falls, ID (2 SEATS, 1 Fire Boss)	<u>08/23/2016</u>
Pioneer Fire Helibase, ID (2 T3 Helo, 1 T2 and 2 T1 Helo's)	<u>08/24/2016</u>
Garden Valley Helibase, ID (1 T3, 2 T2 and 1 T1 Helo's)	<u>08/24/2016</u>
Cascade Helibase, ID (3 T1 Helo's)	<u>08/24/2016</u>
McCall, ID (2 Seats, 1 Fire Boss, 2 Otters, 1 T3 Helo and 1 T1 Helo)	<u>08/25/2016</u>
Garden Valley Helibase, ID Closeout	<u>08/25/2016</u>
Salmon Helibase, ID (1 T-3, 1 T-2 Helo)	<u>08/26/2016</u>
Challis Helibase, ID (1 T3, 1 T-1 Helo)	<u>08/26/2016</u>
Pocatello Tanker Base, ID (2 CL-415 H2O Scoopers, 3ATGS, 3SEATS, 2 580)	<u>08/26/2016</u>
Idaho Falls Tanker Base (2 T-1 Helo's, 1 Air Attack)	<u>08/27/2016</u>
Juniper Helibase (2 T-3, 1 T-1)	<u>08/27/1026</u>
Swan Valley Helibase (2 T-3, 1 T-2 Helo's)	<u>08/27/2016</u>
Berry Fire Helibase (2 T-3, 1 T-2, 1 T-1 Helo's)	<u>08/27/2016</u>
Tie Fire Helibase (2 T3, 3 T-2, 2 T-1 Helo's)	<u>08/28/2016</u>
Driggs Air Attack Base (1 Air Attack, 2 CL 415 H2O Scoopers)	<u>08/28/2016</u>
Peterson Hollow Fire Helibase, UT (2 T3, 1 T2, 3 T1 Helo's)	<u>08/29/2016</u>
Logan Air Attack, UT (1 Air Attack)	<u>08/29/2016</u>
Twin Peaks Helibase Heber, UT (2 T3, 1 T2, 1 T1)	<u>08/29/2016</u>



Date: 8/20/2016	
Location: <b>Richfield Interagency Dispatch (2 SEATS)</b>	
<b>Operations (HOS)</b>	Received a good base briefing, SEATS were being dispatched just as we arrived. Team Lead, HIP, HOS and AMI departed for the Briggs Helibase.
<b>Safety (RASM)</b>	<p>SMS (Risk Management) Reviewed Mishap Plan was discussed shared responsibilities. Over solid plan.</p> <p>Training was conducted and local responders and equipment support has been evident. SMS (Promotion) 7 trainees in different levels of progression towards dual qualification concerning Seat Manager and Tanker Base Manager.</p> <p>Discussed Crash fire rescue documents and the delineation of tasks to each job Limiting factor with 1<sup>st</sup> responders when flight operations increase.</p> <p>As Fire Fighting aircraft numbers increase discussed a need for crash fire rescue equipment set be defined against operational tempo and the amount of aircraft occupying airport.</p> <p>SMS (Promotion) Discussed continuous improvement concerning training opportunities post Lesson Learned from the fire season.</p>
<b>Maintenance (AMI)</b>	1 of 2 Jet-A pumps (on trailers) not compliant, missing spark arrestor and shielded ignition.
<b>Fixed Wing Specialist</b>	Met with base manager and received a briefing on the base. They were anticipating a dispatch upon our arrival. Was introduced to the crew. Quickly looked at the base set up so not to interfere with the dispatch. The set up was very good, only concern was GA needing fuel and the tanks being on the ramp. Manager has worked it out with the FBO and with minimal GA it is not much of an issue. He has two SEMG (T) working with the SEMG. They are performing FWPT and RAMP duties while training. Staffing can be an issue at times and with the potential number of SEATs coming in for the new fire it is easy to see. We discussed the ramp at Fillmore, funding is in place for the needed repairs. I shared that this seems to be a problem in the other two regions I visited this year as well. Possibly a national issue. Operations appeared to be very smooth during my observations. We discussed performance planning along with weight and balance for the SEATs. He did not know what the pilots were doing currently. He will follow up on this. They may have a chart on board. It seems that the manager is very proactive in building up his subordinates to better them and the program. This gentleman is a solid leader.
<b>Inspector Pilot (HIP)</b>	Nothing to add.



Date: 8/20/2016	
Location: <b>Briggs Fire Helibase (T-3 Helicopter)</b>	
<b>Operations</b>	The crew was actively involved of aerial ignition upon our arrival, we had a very good discussion of recent safecoms, training and PSD Ops. We discussed weight and balance, load calculations. The crew identified the Automated Helicopter Payload Matrix AHPP V3.0 technologies that are working well. We discussed doors off configurations and the need for an additional load calculation.
<b>Safety</b>	Not Present.
<b>Maintenance</b>	Pilot not authorized to R&R doors on aircraft. Mechanic will perform work.
<b>Fixed Wing Specialist</b>	Not Present.
<b>Inspector Pilot (HIP)</b>	Moki Helitack, Exclusive Use helicopter (AS350B3e). Pilot card was issued by OAS WAO. HIP did not sign the card. Discussed the issue with OAS and it was decided that if a vendor does not open the electronic card file with PDF, the card will print without the electronic signature. HIP Mancano will complete a new card and get it to the vendor. Sectionals on the aircraft were expired. Primary pilot was on break, relief pilot notified company and ask for primary pilot to bring new sectionals. Vendor and Helitack crew were not familiar with the Hazmat book, Special Permit (9198's), and ERG. Educated Helitack crew and flight crews to the importance of following the Hazmat requirements. Manager and pilot both signed the Hazmat Manifest (Appendix 4, Sample 2) before we left.



Date: 8/21/2016	
Location: <b>Strawberry Fire Helibase</b> (T-3 Helicopter)	
<b>Operations</b>	<p>We discussed Hazmat requirements and the need to utilize the appendix samples in the Interagency Guide Book. We discussed CRM and training requirements for crew proficiencies. Additional discussions were brought up on the “Doors Off” configuration because of the previous site visit.</p> <p>The crew leader requested information about IAT and IQCS being link together, I explained that the WO Boise West office is aware of the issue and that I will follow up on updates.</p> <p>EU Manager unaware of SMS.</p>
<b>Safety</b>	<p>Good discussions with Helicopter Manager concerning exposure SMS pillars and what they can do for you during operations.</p> <p>SMS (Risk Management) Discussed Emergency Aviation Mishap Plan for remote operations. Discussed options and what crew has trained to and where they would take folks for care.</p> <p>Discussed aviation products that can improve pilot SA during morning briefings. Topics included flight packet inclusive of current frequency, Helispots and their designation &amp; description, medical facilities information etc.</p> <p>Discussed CRM Crew Resource Management and use of electronic I pads during operations. Maintaining good look out doctrine and getting eyes outside of cockpit.</p> <p>Discussed aircrew safety concerning fatigue with regards to the last 1/3 of the crew day. Looked at mitigation opportunities. Leadership is engaged. Good operation.</p>
<b>Maintenance</b>	<p>Part-135 manual absent, all involved informed by ASAT today OK but, as of tomorrow they are only available if it is present.</p> <p>FSV driver educated on need to comply with contractually necessary weekly pressurized draining of filter.</p>
<b>Fixed Wing Specialist</b>	<p>Nothing to report for FW at Strawberry. I did visit and listen in on the other team members conversations. Levi mentioned fatigue is starting to become an issue for some folks.</p>
<b>Inspector Pilot (HIP)</b>	<p>Reviewed Load Calculations: Max internal gross weight was incorrect. Discussed it with both pilots and they will make corrections on all future load calculations.</p> <p>Vendor and Helitack crew were not familiar with the Hazmat book, Special Permit (9198's), and ERG. Educated Helitack crew and flight crews to the importance of following the Hazmat requirements. Manager and pilot both signed the Hazmat Manifest (Appendix 4, Sample 2) before we left. Copies of the Special Permit (9198 were installed before we left.</p>



Date: 8/21/2016	
Location: <b>Elko Interagency Dispatch (Air Attack)</b>	
<b>Operations</b>	Discussed UAS intrusion. Local Helitack Crew on assignment.
<b>Safety</b>	<p>Good discussions with Pilot and Air Attack concerning CRM and use of electronic I pads during operations. Training was discussed with new electronic equipment and the ability to provide SA. Emphasized briefings and communication prior to flight to ensure different phases of flight avoid task saturation with electronic equipment.</p> <p>Discussed the need for maintaining good look out doctrine and getting eyes outside of cockpit.</p> <p>SMS (Risk Management / Assurance) Aircrew had an UAS incursion at 11,000 ft. with quad Copter. During operations over fire. Safecom was filed 8/21/2016.</p> <p>Crew immediately returned to base to follow current policy involving reporting for UAS incursions.</p> <p>Discussed aviation products that can improve pilot SA during morning briefings. Topics included flight packet inclusive of current frequency and medical facilities.</p> <p>Discussed aircrew safety concerning fatigue with regards to the last 1/3 of the crew day.</p> <p>Looked at mitigation opportunities. Leadership is engaged. Good operation.</p>
<b>Maintenance</b>	Not Present.
<b>Fixed Wing Specialist</b>	<p>Met with UAM, Acting SAM and E/U ATGS. We discussed the inadvertent retardant drops in riparian areas. They pointed out that sometimes it can be difficult to tell where one is out in this country and that the ATGS' primarily keeps the loads on the ridges.</p> <p>We also discussed returning A/C to contract availability and the process of going through an AMI. The SAM stated that it can be very difficult to get in contact with an OAS AMI at times.</p> <p>We discussed that possibly during the ATGS academy that they could spend a half day on contracts and pay documents. He suggested I get in contact with the GACC could also be of help with these two items.</p> <p>It has brought up the concern that is not limited to this year or area. On occasion while fighting fire with heavy air tankers a lead will show up that was not requested and with no notification. At times they also stick around and lead in SEATs, this is pretty unheard of unless requested by the pilot. I relayed my experience in R9 with this similar issue. In my opinion, NICC may be doing this. I explained that it is important to keep the leads current, however communicating that these aircraft are coming to your fire is equally important. Some follow up should take place for this.</p>
<b>Inspector Pilot (HIP)</b>	Vendor and Helitack crew were not familiar with the Hazmat book, Special Permit (9198's), and ERG. Educated Helitack crew and flight crews to the importance of following the Hazmat requirements. Manager and pilot both signed the Hazmat Manifest (Appendix 4, Sample 2) before we left.



Date: 8/22/2016	
Location: <b>Battle Mountain</b> (2 SEATS)	
<b>Operations</b>	We received a very good briefing of facilities, fuels, fire conditions and the management of a very active tanker base. There appears in my opinion to be an issue in Interagency support of staffing properly trained personnel.
<b>Safety</b>	Good discussions with Tanker Base Manager. Observed safety brief. Briefed emergency response and the steps to preserve life and deal with emergency. SMS (Risk Management) Continued discussions with refueling and tanker crews about their training and safety related items to dealing with emergencies at the airfield. Discussed aircrew safety concerning fatigue with regards to the last 1/3 of the crew day. Looked at mitigation opportunities. Leadership is engaged. Good operation.
<b>Maintenance</b>	Lack of crash rescue limits MAFFS turns.
<b>Fixed Wing Specialist</b>	We attended the morning briefing and explained the purpose of our team. After briefing we discussed staffing at BAM and nationally. The base manager has some interesting ideas and we kicked around a few others. This topic along with exploring what bases need to remain open with the current mix of aircraft should be looked at as a national issue. SEMG is working on TB training positions.
<b>Inspector Pilot (HIP)</b>	Nothing to add.



Date: 8/22/2016	
Location: <b>Winnemucca</b> (2 SEATS, 1 Air Attack)	
<b>Operations</b>	<p>We were very well received and 1 of the SEATS was dispatched shortly after our arrival.</p> <p>We had a very good discussion with the Air Attack of current issues with communications and National Support Issues.</p>
<b>Safety</b>	<p>Discussed with pilots in depth communication frequencies and switches with regards to flight profile and single piloted challenges. Pilots utilizing good cockpit resource management.</p> <p>Discussed Training for Seat dropping. New SEAT pilot was using A/A pilot as a mentor concerning drops and their accuracy. Safely working as team to develop skill sets.</p> <p>Good decision making in terms of monitoring fatigue both in the air and on the retardant deck.</p>
<b>Maintenance</b>	Nothing to add.
<b>Fixed Wing Specialist</b>	<p>Visited with ATGS and pilot. Operationally everything is good. We discussed the workload on the SEAT pilots when they get re-directed, returning A/C to contract availability, the lead plane issue that was discussed at Elko. We had an all-around good conversation.</p>
<b>Inspector Pilot (HIP)</b>	Nothing to add.



Date: 8/22/2016	
Location: <b>Rock Hill Fire</b> (2 T3 EU Helo's)	
<b>Operations</b>	<p>Only able to observe 1 qualified HMGB for two T-3 Helo's.</p> <p>1 way approach and departure paths were an issue due to the way vehicles were parked, simple solution was to relocate vehicles.</p> <p>The young crew was doing their best with what they had to work with.</p>
<b>Safety</b>	<p>Discussed SMS and how the safety management system can help organize and implement safety within operations.</p> <p>Observed support vehicles in departure path of helicopters during operations. Crews moved vehicles to alleviate A/C overflying them.</p> <p>Emphasized IHOG and chapters that can help helicopter crews with helibase organization and operations</p> <p>Safe operations overall.</p>
<b>Maintenance</b>	<p>The entire crew appeared to be uncomfortable with my presence and after a short discussion I learned that they had recently been ramp-checked by the FAA.</p>
<b>Fixed Wing Specialist</b>	<p>I was part of the conversation of removing doors with the current directions given from the FISDO's around the country.</p>
<b>Inspector Pilot (HIP)</b>	<p>Didn't get much time with either type 3 Exclusive Use helicopter on this fire. I visited momentarily with the Grand Canyon AS350B3 and he seemed pretty squared away on the paperwork. I did advise the crew to revisit the layout of the temporary helibase as it was forcing the Reeder Flying Service AS350B3 to depart downwind with a gusty 20 knot wind tailwind. Crew immediately moved fuel trucks to comply.</p>





Date: 8/23/2016	
Location: <b>Boise Tanker Base</b> (2 MAFFS, 1 Beaver, Seats, 1 Air Attack)	
<b>Operations</b>	<p>Base is lacking in support and a very good example of the reason why Tanker Bases should be rated by complexity.</p> <p>Personal comment; i.e.: Type 1-4, Type-4 could be 2-Seats, T-3 could be 2-Seats 1 or two larger tankers. "Just a thought".</p>
<b>Safety</b>	<p>Base was impressive toured MAFFS training that was being conducted in support of operations.</p> <p>Air Crews and ground personnel felt operations were being accomplished safely as well as efficiently. Overall no identified aviation safety concerns. Would emphasize the need to evaluate taxi lines and markings in and out of fuel pits.</p>
<b>Maintenance</b>	<p>Boise has \$5500 budget</p> <p>No running water for personnel but 1M gallons of mud.</p>
<b>Fixed Wing Specialist</b>	<p>Base manager gave us a thorough tour of the base and MAFFS units. During the tour it was recognized that they do not have a containment berm around the tanks.</p> <p>After the tour we discussed staffing and facilities. The ATBM and Asst. ATBM are both seasonal positions and have to attend meetings and training while in layoff status. Most of the time it is difficult for them to find qualified people to help staff when busy. I shared some previous discussions about staffing and the fact that is a national concern. We then discussed the lack of a training curriculum and some ideas to standardize that. I was shocked to see what facilities were being utilized at the hub of national fire suppression effort!</p> <p>The base manager shared that half of his operating budget (\$5500) goes for the rent on a construction office trailer to get people out of the elements. This base delivers around one million gallons of retardant per year and they basically have no place to retreat from the elements when possible. They have delivered 1.2 million gallons of retardant at the time of our visit. He also shared the difficulty in sharing contracts and schedule of items between agencies. This is also an issue with non-federal agencies that host tankers.</p> <p>The base manager has some fantastic ideas to bring the bases around nationally but it will take WO support. These thoughts are in line with my discussion in Battle Mountain NV. They need support from leadership.</p>
<b>Inspector Pilot (HIP)</b>	Nothing to add.



Date: 8/23/2016	
Location: <b>Twin Falls Air Tanker Base</b> (2 SEATS, 1 Fire Boss)	
<b>Operations</b>	<p>The acting base manager was very comfortable in the in-brief and in-formal discussion of what, why and how they operate.</p> <p>The facilities were a very good example of how a professional Interagency Fire and Aviation Base of Operations should be hosted.</p>
<b>Safety</b>	<p>No noticeable safety issues good overall operations. .Would emphasize the need to evaluate taxi lines and markings in and out of fuel pits. (National Issue)</p>
<b>Maintenance</b>	<p>Why do SEATS have a day off each week?</p> <p>Is this a holdover from round engine aircraft days?</p>
<b>Fixed Wing Specialist</b>	<p>What a beautiful base! The layout is superb and has everything a tanker base should have. We discussed concerns and issues with the acting base manager. He expressed the lack of trained staff as well. They are extremely grateful for their base and work diligently to maintain it. They aide surrounding bases with the minimal staff they have but, know that those bases have good folks that need their help and struggle with staffing too.</p> <p>Visiting with the SEAT pilots we discussed weight and balance (W&amp;B) of the aircraft. The question was asked, "what is the purpose of a W&amp;B for every load?" I was not 100% certain so my response was that I believe it is so we do not over gross the weight of the A/C. If this is the case, why can't ONE be done for the day for the local area at the worst conditions and if a long distance dispatch they complete another? This could be written into the contracts. If it is, the requirement of sharing that with the SEMG should also be added. If there is another reason it should be shared with Vendors and SEMG's. They also expressed an inconvenience of being relocated without the service vehicle. In most cases this is adequate for a day possibly two but when it extends beyond that some provisions should be made for transportation in the local area.</p>
<b>Inspector Pilot (HIP)</b>	<p>Nothing to add.</p>



Date: 8/24/2016	
Location: <b>Pioneer Fire Helibase</b> (3 T3 Helo, 1 T2 Helo, 2 T1 Helo's)	
<b>Operations</b>	<p>Attended the a.m. briefing and began visiting with the interagency crews. After visiting with everyone and catching up on notes from the previous days it appeared that we had a common theme. "Doors Off Configuration", "Hazardous Materials Handling" and requirements were not getting through to the Interagency Type-3 Helicopter Crews.</p> <p>We still have issues with IAT vs. IQCS requirements.</p> <p>We had an Interagency crew set up for Aerial Ignition the previous day that was unaware of the Plexiglas Shoot Site Glass issues and only a few of the crews had working knowledge of SMS.</p>
<b>Safety</b>	<p>Viewed and discussed aircraft mishap plan at the helibase and outside of the base. Very well put together and trained to once a week.</p> <p>Helipads well equipped with extinguishers and AFFF truck.</p> <p>AFFF truck is daily tested.</p> <p>Deck coordinator very organized with EMS operations and first responder's responsibilities. Good communication</p>
<b>Maintenance</b>	<p>Numerous Type III's</p> <p>Discussed/informed on door R&amp;R issue and pressure draining FSV fuel filter etc.</p> <p>UH-60A had -701D engines not -700's, performance?</p>
<b>Fixed Wing Specialist</b>	<p>I visited with one of the HLCO's during the visit at Idaho Falls. Airspace coordination and communication over the fire is very good. We had a discussion on tactics with the scoopers and how they are most effective. We also talked about the couple reports of dropping retardant into riparian areas. He stated that the MRB being de-mobbed, was set up to far away from the fire. Our conversation turned to gels and their capabilities and how they, in theory, may be used much more close to riparian areas. It was a very good conversation.</p>
<b>Inspector Pilot (HIP)</b>	<p>There were seven helicopters at this helibase. Base was located on the Idaho City airport which is owned by the USFS. I only had the opportunity to visit with four of the helicopters. One was a USFS Cobra. The one Bell 407 needed some direction regarding the Hazmat booklet, but they all were operating in compliance with the Special Permit and had all documents that are required. No issues at this base.</p>



Date: 8/24/2016	
Location: <b>Garden Valley Helibase</b> (1 T3, 2 T2 and 1 T1 Helo's)	
<b>Operations</b>	<p>After discussing the common findings it was brought up by a crew again that IAT and IQCS do not correspond.</p> <p>The crew was not aware of the A-310 vs CRM 7-Skills for the USFS.</p> <p>The crew had replacement issues with A#'s vs O#'s during transition and we could only relate it to the Mob Guide dispatching procedures.</p>
<b>Safety</b>	<p>Discussed moving fuel trucks further away from operating aircraft. Maintenance and pilots agreed.</p> <p>Emphasized field set up via the IHOG allowing for safe separation of aircraft and fuel trucks and support personnel.</p> <p>Personnel very cognizant of fatigue factor for both pilots and support personnel. No issues communicating with leadership concerning fatigue and stopping operations accordingly.</p>
<b>Maintenance</b>	<p>Actually has pressure draining of FSV as task placarded next to it.</p> <p>ABC extinguisher on FSV</p> <p>Anti-rotation mechanism on hook, who is responsible for USFS rappel bracket STC?</p>
<b>Fixed Wing Specialist</b>	Nothing to report.
<b>Inspector Pilot (HIP)</b>	<p>Three helicopters located at this helibase. Two of the three aircraft crews were not familiar with the Hazmat book, Special Permit (9198's), and ERG. Educated Helitack crew and flight crews to the importance of following the Hazmat requirements.</p> <p>Manager and pilots for both aircraft signed the Hazmat Manifest (Appendix 4, Sample Common theme at all type 3 aircraft regarding aircraft door removal and installation.</p> <p>The BH407 at this base required more direction regarding doors than any so far.</p>

Date: 8/25/2016



Location: <b>McCall Air Tanker and Helibase</b> (2 SEATS, 1 Fire Boss, 1 T3, 1 T1 Helo's)	
<b>Operations</b>	<p>At this location we talked about the same discoveries from other base visits and COR issues.</p> <p>It is obvious that we have a COR issue on our EU contracts and we need more direction from the WO.</p> <p>I.E. it has taken one helicopter manager 5 years to achieve L-2 COR and he has attended several pre-use meeting's, multimillion dollar contract administrative entries in the payment system with no credit.</p>
<b>Safety</b>	<p>Finest aviation facility top to bottom we visited. Only safety issue is the ramp is in need repair concerning asphalt cracks and FOD from asphalt crumbling.</p> <p>Engineering is aware and is putting plans in place for repairs. . Would emphasize the need to evaluate taxi lines and markings in and out of fuel pits. (National Issue)</p>
<b>Maintenance</b>	<p>Type I</p> <p>Refuel not bonded with cable from FSV, driver did not believe necessary Followed up 9-26-16 with manager by phone with NFPA 407 ref. 5.4.1 &amp; 5.4.6. That specified cable needed.</p>
<b>Fixed Wing Specialist</b>	<p>We visited with the staff. I received a marvelous history lesson from the Asst. ATBM of the base and area. The RAMP folks are very content. We attended their morning briefing. The ATBM attempted to use the GACC weather and fire behavior briefing. The Wi-Fi was very slow at loading so he relied on paper. They had an excellent discussion on operations from the previous day. Pilot participation was superb.</p> <p>In a one on one discussion with the ATBM (detailer) I shared previous information we found about staffing, training, and facilities. His observations for Mc Call are that they are sitting pretty well. He did share that at his base (Cedar City) they are facing some of the same issues. We talked about the ramp condition at Mc Call they are working at getting repairs made.</p> <p>Overall it is a very nice base. He will have the regular ATBM give me call if he has anything he would like to discuss.</p>
<b>Inspector Pilot (HIP)</b>	<p>Visited with the crew of the Type 3 backfill helicopter. Pilot and crew were completely unaware of the hazmat requirements. Educated the pilot and crew and made sure they were dialed in before they left for a recon mission. Discussed door removal and installation requirements. Had just a few minutes with the crew of a Type 1 helicopter before they were called back to the fire. No issues.</p>



Date: 8/25/2016	
Location: <b>Cascade Helibase Closeout</b> (3 T1 Helo's)	
<b>Operations</b>	<p>We discussed the “doors Off Configuration and Hazardous Material issues that we have been seeing. Training vs qualification issues.</p> <p>The crew brought up the fact that we do not have a clear definition of when Crash Rescue should be ordered, we discussed establishing parameters or trigger points and agreed that it may come down to complexity.</p>
<b>Safety</b>	<p>Heavy Type I helibase with limited crash fire rescue capability at helibase. Aircraft mishap equipment is on order and should be in place this week.</p> <p>Discussions need to occur concerning conditions that dictate the necessity for crash fire rescue and EMS increased capabilities. Examples:</p> <p>Evaluation for complex aviation operations mixing FW and RW operations to include General Aviation Traffic.</p> <p>Local response capability including type of equipment personnel training and response times.</p> <p>Number of aircraft operating out of base.</p>
<b>Maintenance</b>	<p>Multiple R&amp;R of same stud on accessory Gearbox &amp; SAFECOMS. National ASI contacted company for explanation of satisfactory (repairs IAW MM) but will receive company investigation report at later date.</p>
<b>Fixed Wing Specialist</b>	<p>Nothing to report.</p>
<b>Inspector Pilot (HIP)</b>	<p>Chatted with the crews on two Type 1 helicopters. No issues. Load calculations were correct.</p>



Date: 8/26/2016	
Location: <b>Salmon Helibase</b> (1 T-3, 1 T-2 Helo's)	
<b>Operations</b>	<p>Outstanding facilities, briefing and timing. Crews were not familiar with doors off configuration and weight and balance issues.</p> <p>We had the same discussions of Hazard Materials handling, CRM and training qualifications as we have at other site visits.</p> <p>PSD Ops, the 1 machine that we looked at had cracks around the hopper handles, local PLDO had reached out to Aerostat for a replacement shoot cover site glass (\$55) and was told to build his own.</p>
<b>Safety</b>	No safety issues noted.
<b>Maintenance</b>	<p>Mechanic brought up fact of offers by companies other than his (i.e. Not carded by these companies) to fill in as mechanic. He did not do it, even for "very good" money. Wanted USFS to know. Check company on mechanic cards!</p>
<b>Fixed Wing Specialist</b>	Nothing to report.
<b>Inspector Pilot (HIP)</b>	<p>Chatted with the crew of the Type 2 Helicopter and everything was in order with no issues. Very nice to see the relief pilot doing things so well.</p> <p>The Type 3 Exclusive Use Helicopter was weak on Hazmat knowledge and door removal procedures. Educated both pilots and brought them up to speed. They will be contacting their respective companies to get procedural input to do things in accordance with their local FSDO's and company operations specifications. Load Calculations were all correct.</p>



Date: 8/26/2016	
Location: <b>Challis Helibase</b> (1 T-3, 1 T-2 Helo's)	
<b>Operations</b>	Crew receiving dispatch upon arrival, we conducted a brief synopsis of our findings and discussed their understandings of the issues. The EU T-3 was very familiar with both the doors off configuration issues and squared away on the Hazardous Material Guide Book. T-1 HMGB (T) was very attentive and knowledgeable of Hazardous materials requirements.
<b>Safety</b>	<p>Discussed with pilot the perceived pressure between the USFS and vendors supporting aviation missions. Encouraged the use of the vendors SMS specifically the Risk Management tools RAWs (Risk Assessment Work sheets) to evaluate potential hazardous situations that require decisions possibly delaying operations due to crew day, and or support and aircrew fatigue factors.</p> <p>Again emphasized to capture these discussions through CPARS and the SAFECOM system to reinforce that SMS is a living breathing program that is having an effect on safe aviation operations.</p> <p>Discussed with helicopter and base manger issues revolving around communication infrastructure. Described issues with repeaters and radios themselves.</p> <p>Recommended Safecom concerning inabilities at times to communicate with ground and aircrews.</p> <p>Recommended to follow up with R4 Aviation staff concerning a review of communication network and possible improvements.</p>
<b>Maintenance</b>	Doing door R&R correctly (this is notable), pilot trained, maintenance and W&B entries and USFS not doing it.
<b>Fixed Wing Specialist</b>	Nothing to report.
<b>Inspector Pilot (HIP)</b>	Discussed Hazmat procedures with two Type 2 companies. No issues. The Type 3 was out flying and was unavailable.





Date: 8/26/2016	
Location: <b>Pocatello Air Tanker Base</b> (Air Attack, 2 CL-415 Scoopers and 3 SEATS)	
<b>Operations</b>	<p>We had a very good discussion of our findings through previous base visits (staffing, training etc.).</p> <p>Unit FAO was aware of the T-3 Helo issues with doors off configuration and asking for resolution.</p> <p>Issues: end of day dispatching, ROSS does not consider actual aircraft locations? Should we go back to the basics with dispatch request (FAX and Kneeboards Forms)?</p> <p>COR issues, alternate COR's</p> <p>UAS Intrusions and protocols for intrusions.</p>
<b>Safety</b>	<p>Discussed aviation safety with regards to tanker base infrastructure. Discussed the need to review with engineering and airport management with airfield markings for taxi lines, ramp, and fuel pit operations. Refer to FAA (A/Circular 5340 -1L) Air tanker base crew is accomplishing the mission with multiple different type model series of tankers and has put safety processes to aid in refueling VLATS. (Very Large Air Tankers)</p> <p>Pad dimensions were examined to avoid aircraft weight and ground support equipment safety issues.</p>
<b>Maintenance</b>	<p>Question; "what do we do if FSDO does not allow company to train pilots to R&amp;R doors?"</p>
<b>Fixed Wing Specialist</b>	<p>The facility looks really nice. The FAO has concerns about staffing and consistent training. He expressed concern about the ordering process of waiting for a ROSS order rather than getting a kneeboard to get the a/c launched and following up with the ROSS. We discussed the Overview Team coming in the next few days. I visited with the scooper manager and all is well they are staying quite busy but all are content. I spoke with one ATGS about the retardant drops, UAS, and returning A/C to availability. He was up to speed on all subjects and had no issues. I will do a follow up visit on 8/27 to catch the rest of the folks.</p> <p>Had a short discussion with the FAO/UAO about the time of day that some SEATs are being dispatched. On occasion a SEAT may come from a distance away and be pushing pumpkin time. The pilot should be asked if they feel that they can make it to a fire, make a drop, and recover with ample time no single digit minutes to spare.</p>
<b>Inspector Pilot (HIP)</b>	<p>Nothing to add.</p>



08/27/2016,	
Location: <b>Pocatello, ID ATB</b> (2 T-2 Helo's and multiple fixed wing out working)	
<b>Operations</b>	Discussed the findings of several Helicopter, ATB and SEAT Base visits with UAO. We explained the "Doors Off" and "Hazardous Materials" issues. We discussed the training/qualification issue that seem to be across Interagency Programs, COR issues and overall all discussion at the field level. Apparently all of these training issues conflict with the I/A Mob Guide.
<b>Safety</b>	See Previous day's notes.
<b>Maintenance</b>	Contract exhibit 8 (a) (10) is applicable to gasoline powered FSV fuel pumps, what about diesel? First example viewed and it lacked the shield. S-70/UH-60 managers need to know about "apex rings" and the cargo hooks.
<b>Fixed Wing Specialist</b>	Met with the ATBM at Pocatello. He gave us a rundown of ramp movement and operations. The cement pad in pit 2 could be extended to better accommodate the VLAT. As it is the wheels barely fit on the pad. They have a plan to add a third pit plus 400' of ramp. When this project takes place extending the cement in pit 2 could be added to the project. They have the stairs and other required items to host the VLAT but it requires contacting the FBO and that occasionally takes some time to get them in place. He reiterated the short staff issues. Visited with the local ATGS. We discussed the three drops into riparian areas, return to contract availability, UAS incursions, and overloading bases with too many aircraft. He stated that he will call the tanker base to see if they are keeping up or if he should route ac elsewhere. Operations on the fires have been good with no issues.
<b>Inspector Pilot (HIP)</b>	The two Type 2 helicopters were out flying and were not available to chat with.



Date: 08/27/2016	
Location: <b>Henry Fire Helibase Idaho Falls</b> (2 T-2 and 1 T-1 Helo's, 1 Air Attack)	
<b>Operations</b>	T-3 Helicopter Crew was concerned that they had been requested to map retardant lines on the fire, retardant lines had black on both sides because the drops were not effective in fuels with fire WX and Fire Behavior conditions. It was suggested that air tankers have mapping capabilities during drops in the future. New 49 CFR Hazardous Materials Requirements "GHS OSHA/DOT".
<b>Safety</b>	Great conversations with A/A crew consisting of trainee, qualified A/A, and pilot concerning risk management through CRM. Good evaluation of mission and communication between trainee and instructor. Discussed look out doctrine and the need for effective cockpit management with new aviation planning equipment (IPADS) Reinforced reporting and UAS policies and procedures if encountered during operations.
<b>Maintenance</b>	Type III on call ship FSV not being sumped daily / not logged. Type I EU Ship FSV gasoline powered fuel pump not compliant with exhibit 8, manager to work with contracting to generate work order with compliance date of 9-14-16.
<b>Fixed Wing Specialist</b>	Met with two qualified and one trainee assigned to the fire. We discussed the same items as in Pocatello. One of the guys and the trainee were not completely familiar with returning ac to availability. They also stated that getting and keeping access to ABS was cumbersome. One suggested creating a PDF map of the tankerbases so they could determine which base to send ac to prevent overloading. As we discussed it further, we developed the idea of having a geo referenced map of the bases with a pop up when clicked on that would show that bases page from the base directory. They had some frequency problems the day the team arrived. They had been using an A/G from the local unit. It was resolved later in the day by getting another assigned to the fire.
<b>Inspector Pilot (HIP)</b>	Both Type 2 Helicopters had everything in order, but we brushed up on the Hazmat. The Type 3 Helicopter needed Hazmat documents to include the booklet, Appendix 4 signatures and the ERG. One Type one needed a Hazmat education as well as corrections on the load calculations and use of the checklist to include use of the lock out devices. One Type 3 couldn't operate his EFB (iPad), so we found his documents. He presented me with an expired card and we were able to find his current card electronically and ensure he had everything he needed. The pilot was also unsure as to how to document door off removal.



Date: 08/27/2016	
Location: <b>Tie Fire Juniper Helibase</b> (2 T-3, 1 T-1 Helo's)	
<b>Operations</b>	Crew assigned O#'s instead of A #'s. Issues with AD hires (ASGS), examples given were an AD employee making derogative comments to a helibase manager taking the fall for any failures and AD not being present during critical phases of helibase operations. (follow up on R8 AD)
<b>Safety</b>	Discussed crew day and safety considerations for mitigating and understanding how to examine hazards for crew member and aviation support personnel. Emphasized safe ingress and egress lanes for aircraft absent of overflying personnel and support vehicles. Reviewed crash fire rescue response plan and personnel perspective supporting this plan.
<b>Maintenance</b>	Type III FSV driver not performing weekly filter flush.
<b>Fixed Wing Specialist</b>	Nothing to report.
<b>Inspector Pilot (HIP)</b>	No issues with the Type 1. One Type 3 could not produce any Hazmat materials documents and it took extra time to educate the pilot on Hazmat and door off procedures. Problem pilot that we have had issues with in Alaska, but is trying to clean things up with a new company. The other Type 3 was completely in order and doing very well with his exclusive use contract.



Date: 08/28/2016	
Location: <b>Berry Fire Helibase Jackson Hole, WY</b> (2 T3, 1 T2, 1 T1 Helo's)	
<b>Operations</b>	Crews unaware of 2016 Pre-Use Inspection checklist and IHOG updates, emailed updated information to Helibase Manager (IHOG/IATAD/HAZ. MAT. Guide). Continued to discuss finding of previous site visits.
<b>Safety</b>	<p>Reviewed Mishap Plan and discussed sharing revised plan with Helibase and Dispatch and supporting personnel. Over all very well done.</p> <p>Emphasized training of this plan with transitioning personnel to identify any potential gaps in planning and or support.</p> <p>Discussed the idea of pilot knee board cards with information for local hospitals, frequencies, size of hospital pads, Lat Longs, etc.</p> <p>Discussed Crash fire rescue documents and the delineation of tasks to each job to positions</p> <p>Discussed training opportunities post Lesson Learned from the fire season. Concentrated on gaps in communications, aviation emergency procedures Reinforced with the Heli-base manager and trainee the need to review IHOG Heli-base set up (page 15-8) Reinforcing that it's ok to change heli-base layout if safety issues arise due to changing environmental issues.</p>
<b>Maintenance</b>	<p>Type III operator had local FSDO that does not consider door removal to be maintenance.</p> <p>Type II operator with known prior history of ICA issues now in compliance.</p> <p>FSV driver had past experience being denied airport access in Virginia with ABC fire extinguishers.</p>
<b>Fixed Wing Specialist</b>	Nothing to report.
<b>Inspector Pilot (HIP)</b>	<p>Discussed procedures with the IDL helicopter and cleaned up a couple of things with the Hazmat procedures. Couldn't find the MOU or Cooperator Letter on the aircraft.</p> <p>The other two helicopters that we had the opportunity to talk with had hazmat issues as well as being unfamiliar with door off procedures.</p> <p>Load Calculations looked good.</p>



Date: 08/28/2016	
Location: <b>Tie Fire Helibase Victor WY</b> (2 T3, 3 T2, 2 T1 Helo's)	
<b>Operations</b>	AD manager having a difficult time keeping up with minimal requirements. Forms outdated, unfamiliar with Haz Mat requirements doors off etc. Emailed IHOG/IATAD/IAHMGB. Continued to discuss finding of previous site visits.
<b>Safety</b>	Base was in its first day of operations. Emphasis was put on safe distance for support vehicles in proximity to helicopter operations while landing at base. Discussed exposure of personnel on deck when aircraft are taking off and landing Discussed the need to plan during morning brief how base personnel will respond to mishap on the heli-base. Discussed FOD on the deck and making sure helipads are clear of potential hazards.
<b>Maintenance</b>	Type II co-operator using USFS AMI for RTCA as courtesy. Type I FSV driver not bonding IAW NFPA 407 and not performing weekly filter flush.
<b>Fixed Wing Specialist</b>	Nothing to report.
<b>Inspector Pilot (HIP)</b>	Cleaned up a couple of issues with load calculations with a Type 3. Two Type 3's needed signatures on the Appendix. One Type 1 needed an ERG. One Type 2 pilot was unfamiliar with the company EFB. Unable to operate iPad. No other issues.



Date: 08/28/2016	
Location: <b>Driggs Air Attack Base</b> (1 Air Attack, 2 CL 415 H2O Scoopers)	
<b>Operations</b>	Not Present.
<b>Safety</b>	<p>Good discussions with Pilot and Air Attack concerning CRM and use of electronic I pads during operations. Training was discussed with new electronic equipment and the ability to provide SA. Emphasized briefings and communication prior to flight to ensure different phases of flight avoid task saturation with electronic equipment. Discussed the need for maintaining good look out doctrine and getting eyes outside of cockpit.</p> <p>SMS (Risk Management / Assurance) Aircrew had an UAS incursions Crew immediately returned to base to follow current policy involving reporting for UAS incursions.</p> <p>Discussed aviation products that can improve pilot SA during morning briefings. Topics included flight packet inclusive of current frequency and medical facilities.</p> <p>Discussed aircrew safety concerning fatigue with regards to the last 1/3 of the crew day. Looked at mitigation opportunities. Leadership is engaged. Good operation.</p>
<b>Maintenance</b>	Not Present.
<b>Fixed Wing Specialist</b>	<p>Visited with the pilots of the scoopers and ATGS at Driggs.</p> <p>Discussed with the pilots how operations were going and if they had any issues or concerns. They are very content and happy with how they are being utilized along with the amount of use. Everyone I have talked with around the Region have been very happy with their work.</p> <p>With the ATGS we discussed UAS, retardant drops in riparian areas, returning a/c to contract availability, stacking a/c in bases with one loading pit. He was receptive to the discussion and is informed with the processes in place. We discussed tactics with the scoopers. I shared how circuit discipline is important with scoopers and he needs to stay on top of that. The scoopers should be maintaining approximately a ½ mile of separation during operations once they are familiar with the circuit. This especially critical with Fire Boss aircraft. Operationally things are good from his perspective.</p>
<b>Inspector Pilot (HIP)</b>	Nothing to add.



Date: 08/29/2016	
Location: <b>Peterson Hollow Fire Helibase Garden Valley, UT</b> (2 T3, 1 T2, 3 T1 Helo's)	
<b>Operations</b>	<p>It was brought to our attention that there is a National Air Ambulance Frequency called V-Med 28 and it is not widely known.</p> <p>There needs to be another refresher/reminder of the fact that we do not monitor FSD duty logs.</p> <p>We need to update A-110 for the Haz. Mat. Requirements.</p> <p>Highly qualified AD HEB1 and HMGB's at this location.</p> <p>Continued to discuss finding of previous site visits.</p>
<b>Safety</b>	<p>Type I helicopter base very good layout per IHOG.</p> <p>Ingress and egress routes were free of obstacles and parked vehicles on the deck</p> <p>Discussed with Heli-base Managers the Aviation Mishap Plan and the need to brief responsibilities. Communication with the deck and associate crews.</p> <p>Air Traffic de-confliction and course rules are in place. Overall frequency plan supports de-confliction of FS firefighting aviation assets and public aviation.</p> <p>Frequencies have been coordinated in order to decrease communications between incoming traffic and air deck support</p> <p>Airspace hazards were identified with state crop dusting aircraft operating close to the airport. UNICOM announcements were suggested to identify the location of the aircraft relative to the airport when they were flying. AOBD was made aware of this flight hazard and mitigation applied.</p>
<b>Maintenance</b>	<p>USFS EU Type-III FSV not bonded to ship during refueling per contract (NFPA 407). Required vendor supplied equipment, necessary to accomplish compliance, was absent. Not the first time for this company this year on the same issue. Contacted DOM at vendor and had discussion. Necessary equipment being shipped overnight to FSV driver hotel location.</p>
<b>Fixed Wing Specialist</b>	Nothing to report.
<b>Inspector Pilot (HIP)</b>	<p>One Type 2 needed signatures on the Hazmat Appendix.</p> <p>Discussed who should be completing load calculations (Pilot vs Manager).</p> <p>Type 1 helicopter not completing any paperwork for door off removal. Encouraged them to contact FSDO to discuss company procedures.</p>





Date: 08/29/2016	
Location: <b>Logan ATB</b> (1 Air Attack)	
<b>Operations</b>	<b>Not Present.</b>
<b>Safety</b>	<p>Discussed UAS protocols and policies in terms of reporting and actions for return to base procedures.</p> <p>Discussion concerning military aircraft and intrusions and the need to follow up with Safecom if there is airspace issues with regional aviation staff.</p> <p>Discussed the need to have dispatch coordinate with military controlling entities to de-conflict airspace through TFR's, NOTAMS and follow communications.</p> <p>Did discuss with pilots that during planning process to check MTR and MOA issues through contacting controlling air ops at military bases by referencing the AP-1B</p>
<b>Maintenance</b>	Nothing to report.
<b>Fixed Wing Specialist</b>	<p>Stopped in at the Logan – Cache airport. Met all three ATGS plus a trainee. We discussed the retardant in riparian issue. They stated that they continuously strive to keep it out. However, on some occasions due to wind, pilot(s), and less than stellar target descriptions it does happen. Also in these conditions it can be difficult to pick them out. I shared that there is an updated application guide out and that they should download it and review.</p> <p>I covered returning a/c to contract availability. They seem Skookum on that.</p> <p>We talked about UAS incursions along with the procedures. One of the gentlemen brought up they had a military incursion during a fire that had a MTR in it. He asked what we are doing about that. One of the others said that the airspace hadn't been de-conflicted. A dispatcher forgot to call the military. My suggestion was to have the military share their schedule daily. The NG does this in Minnesota. This could be posted on the tactical report.</p> <p>Another topic was overloading bases with aircraft. They felt it may have been an isolated issue. It appears that the E/U and local ATGS' keep this in mind and adjust. They are onboard with developing a PDF map.</p> <p>We chatted about the scoopers. They are very happy with their work and effectiveness. I shared some tactics and how the ATGS needs to monitor "Circuit Discipline". The aircraft while operational should be maintaining ½ mile separation. This is important for the Fire Boss especially during scooping. The pilots do a great job maintaining it however on occasion they may tend to creep a little. I also added in some information on gels that are out there and the effectiveness.</p> <p>Operationally, they are happy with things. There is always room for improvement but it cannot all be fixed at once. The AD ATGS said it can be difficult to obtain current materials and documents along with required refreshers. AD ATGS's are going to be utilized for some time, they need to make an effort to stay up to speed and the host agency needs to support them as any other ATGS. One of the guys wanted to give kudos to the helicopters that have powerfill buckets. They have been very effective and able to get water where others cannot. Keep a good mix of delivery systems is his recommendation</p>
<b>Inspector Pilot (HIP)</b>	Nothing to add.



Date: 08/29/2016	
Location: <b>Twin Peaks Helibase Heber, UT</b> (2 T3, 1 T2, 1 T1)	
<b>Operations</b>	<p>Shared information gathered throughout or visits, this base was separate by aircraft type very well and they were actively responding to initial attack and supporting on-going fire.</p> <p>The one message that I took from this visit is that the High Performance Aircraft are possibly being overlooked by AOBD's and ATGS's because of a lack of understanding. Pilot stated that on a previous fire he witnessed a S-61 being ordered prior to a K-Max and later visited with an ASGS that had no idea in the performance differences between the two aircraft. In this pilot's opinion, he has listened to divisions asking for help as he has sat idle while the troops on the ground could have used the support of his AS 350 B3 performance.</p>
<b>Safety</b>	<p>Air Traffic de-confliction and course rules are in place. Overall frequency plan supports de-confliction of FS firefighting aviation assets and public aviation.</p> <p>Discussion concerning military aircraft and intrusions and the need to follow up with Safecom if there is airspace issues with regional aviation staff.</p> <p>Discussed the need to have dispatch coordinate with military controlling entities to de-conflict airspace through TFR's, NOTAMS and</p> <p>Did discuss with pilots that during planning process to check MTR and MOA issues through contacting controlling air ops at military bases by referencing the AP-1B</p>
<b>Maintenance</b>	<p>Manager not sure about procedure for contacting USFS AMI following component change and flight test.</p> <p>Discussed situation and contract language, provided contact information for multiple AMI's and encouraged calls at any time.</p>
<b>Fixed Wing Specialist</b>	Nothing to report.
<b>Inspector Pilot (HIP)</b>	Discussed issues with a Type 1 helicopter. Pilot was not familiar with Hazmat procedures and door off removal. Spent quite a bit of time finding materials that he needed. This was another case of the pilot not familiar with the iPad or where to find the documents if they were on the EFB