

- 1630 Relieved Helco over the Iron Complex with platform N54163 and assumed call sign Iron Air Attack. For the duration of the shift worked with Helicopters 736, 43T, 761, 11M, on Div Delta slop over. Also 0RL and 766 with troop shuttles and movement between H 61 and H 35 and Trinity base.
- 1920 Briefed HELCO on helicopters working in Delta and crew shuttles. HELCO ----- supervision. AA63 returning to RDD and landed 1933. (SHF ECC recorded) -----
- 19XX Received telephone call from Ted Hass, AOBD of downed helicopter and needed to return asap. Called pilot of AA 75 as plane was fueled and available for flight. Pilot responded from Comfort Inn, Redding.
- 2006 SHF ECC recorded AA 75 off RDD enroute to Iron.
- 2024 SHF ECC recorded AA 75 in contact w/Helibase. AA 75 over the incident. At that time I made contact with HELCO, 0RL, 506 who were all orbiting over the incident. Landed helicopters were 7HE, 5KA. Contact was made with inbound 2JG and Reach 5
- 2029 Cleared Reach 5 into H-44 for landing. Held 2JG @ H-43.
- 2039 Reach 5 off H-44 for Redding with 1 patient
- 2040 5KA was on ridge above and to north of H-44 300 yards with rotors turning, requested to move to H-44 for patient loading.
- 2040 Contact with inbound Guard Jolly 91, and CHP H-?? cleared both into FTA
- 204X CHP H-?? released as could not land
- 204X Returned 506, 2JG, 0RL to Helibase
- 205X 7HE enroute Redding w/ 1 patient
- 2100 5KA enroute Weaverville airport w/ 2 patients in stable condition to meet with Jolly 91 who will load patients for continued flight to Redding. Due to fuel issues, 5KA could only go to Weaverville airport.
- 2110 Jolly 91 loaded and enroute Redding, arrived Mercy @ 2130 .
Pilot Jolly 91 Andrew R. Butte-----
- 2115 Tried to move H-44 from air guard to air-to-ground frequency. No contact...turned out to be aircraft radio. Reprogrammed...still no response. Changed to FM 1, positive como.
- 213X Called H-44 "Matt".. Had discussions about the safety of those remaining and confirmed that there were no persons still on the mountain that needed medical attention. Further discussions about obtaining a "names" list. Matt explained that he was going to gather everyone and try to sort out what had happened and basically calm everyone down as well as begin a written narrative as to what they saw. I explained to Matt that we would need a list as soon as possible. Matt said that he would get the names in about an hour as he didn't want to push these people. I

agreed that time would be best served if we waited but reminded Matt that we could only remain on station for approximately 2hrs 45 mins.

Discussions with Matt about flying personnel out in the AM. Matt stated that nobody wanted to fly and would rather walk out in the morning hours. Option one was to have transportation @ DP 70 to transport. Option two was to have all personnel from H-44 move to H-43 at first light so that they didn't have to depart by helicopter from H-44. Both options were to be in place by 0900, Matt was advised.

Discussion with Helibase (Willow) and Air Operations (Russ Gordon) about receiving name list via air-to-ground frequency from Matt, and transmitting that list via AM Victor frequency to Willow Helibase as a much more secure link.

Discussion with Matt regarding manifest of 766 and also head count total @ H-44.

2226 Received list of all personnel remaining on H-44 by way of air to ground and transmitted by way of AM Victor link back to Willow Helibase

22XX Discussions with Matt regarding a grid pattern of the site for missing or ejected people. Asked Matt if he felt there were individuals still inside the aircraft. Matt said that it was too hot to approach and he didn't know if there were victims inside. Matt stated that the area had been isolated and flagged off from entry.

2243 Air Operations inquired if AA could be over the incident @ 0800..affirmative.

2244 As per Air Ops. "Was the aircraft inbound or out bound when accident happened". Matt stated that it was departing H-44.

225X Advised Matt that I needed to confirm his capability of Command channel back to Iron Communications. If you cannot talk to Communications, return to air to ground. The communications link with H-44 and Iron Complex was established.

2306 Advised Matt we would be back overhead at 0800

2307 Air Attack 75 enroute RDD (SHF ECC recorded)

2322 Air Attack 75 landed RDD (SHF ECC recorded)

OPS Check SHF ECC recorded @ 2137, 2207, 2234

TOM BAGWELL, Air Attack Group Supervisor,-----

Jim Morrison's (ASI, USFS) notes of conversation with Mr. Dave Wolf, Chief Inspector for Carson Helicopter Services at Perkasi, PA on 12-05-2008:

Mr. Dave Wolf:

- Have been here 36 years, Chief Inspector since 1987
- June 20-July 29th 7 power checks were performed
 - No Repair Station Manual requirement to perform the power checks here, they may have in the west coast operations
 - Done at pilot's discretion
- All the manuals (Maintenance, parts, flight manuals, etc...) are kept up (maintained) here (east coast operations)
 - Manual up-dates are sent directly to the aircraft
 - Transmittal letters are sent with the revisions to ensure that the revisions are received. The transmittal are signed and sent back here to be filed
 - We send out all the flight manual changes with a transmittal sheet
 - Flight Manual Revision 49 (Sikorsky) is last revision dated 12-05-2006
 - Carson Original Flight manual supplement was dated 01-17-2003
 - Carson Revision #1 was dated 9-03-2003
 - Carson Revision #2 (last revision) was dated 4-20-2004
- The weekly status reports for each aircraft are generated weekly and sent by e-mail/faxed to the aircraft, updates to the aircraft are documented on the status reports and sent back to this (east coast) office to be updated and record keeping. The computer generated reports are sent back to the aircraft with the updates.
 - Each aircraft has an e-mail account
- Tool calibration for the 135 repair station is by individual responsibility
- N612AZ's weigh information:
 - Canadian weigh was accomplished 4-22-2003
 - Empty weigh was: 13, 512.0#
 - Center of Gravity was: 263.35
 - Moment was: 3558368.1
 - Last Chart "C" wt was: 13,279.3, CG: 263.1, MOM was 3493882.3

.....End of notes with Mr. Wolf.....

USFS/Shasta Trinity Heli-Base Manager

- At Shasta Trinity Heli-Base at time of accident.
- Stated that Roarks (Pilot) first day on shift was the 2nd or 3rd of August & that Bill was about 1 week into his shift.
- Received notification of troop shuttle from H-44 to Willow Creek Heli-Base, began coordination of event which involved the Crew/Wx check / and confirming Heli-Spot H-44 Elevation.
- Was notified that Jim Ramage was showing up around 4:15pm for Roarks check ride.
- Shawn called meeting with himself, Roark Schwanenberg, Bill Coultas, Jim Ramage, and Matt Lingenfelter so they could discuss mission
- Bill Coultas addressed the fact that they needed to be careful. "Crawl, Walk then Run"
- Understood that Jim's involvement was to conduct the check ride and to assist with the troop shuttles.
- Flight Mission started around 5:00pm
- Was notified that the fuel load was approximately 2400lbs.
- Saw the A/C's take off from the Heli-Base. Described it as a slow takeoff. No excessive nose over and said that it seemed intentional.
- Noted temperature at Heli-Spot H-44 as 28 degrees C
- Also witnessed A/C return for refuel after 2nd troop shuttle.
- Jim Ramage came down to the Heli-Base to grab drinks after A/C shutdown. Said nothing about check ride status.
- Saw the aircraft takeoff again, said everything seemed normal
- Heard initial call of A/C accident. First heard Tanker 761, then Tanker 766
- Told A/C was on its side and on fire. Heard 4 pax got out of A/C
- Contacted Regional Safety Heli Ops Specialist (HOS) and informed them of accident.
- Asked fuel tender how much fuel was put on aircraft and was told that it was less than normal.
- Followed SOP and contacted Regional Aviation safety Officer (Dennis Brown). Notified him that A/C had crashed.
- Stated that the Helicopter Manager was absent (Josiah) and he took over in his absence.
- Shawn heard majority of radio communication and heard about the Medivac Helicopter being dispatched to H-44, he then notified the HOS
- Explained that Willow Creek Heli-Base was the Incident Base and coordinated and was responsible for handling the accident.

- Shawn attempted to gather information by monitoring the radio. When he had good information he contacted Dennis Brown.
- Shawn attempted to explain to the NTSB the coordination of how the USFS deals with A/C accidents.
- Air Support faxed list to Shawn of people accounted for.
- Confirmed that Roark and Jim Ramage were not on the list. Also confirmed the four that were transported.
- Overheard on the Radio Matt Lingenfelter talking to Air attack giving names at around 1 am
- At 2am he called air support and told them that Jim and Roark were not on the list.
- Suggested to Air Support to reconfirm the list. Shawn was then notified that it was not going to happen that night.
- Does not know where false #'s of survivors came from.
- When asked why casualties were not reported. He mentioned the fact that there were other people listening to those frequencies.

Interview with Shawn Walters, Helicopter Manager USFS
(Notes from Jim Morrison, ASI, USFS)

Date: 8-08-2008

Present at Interview: Jim Morrison, USFS; Gary Morgan, USFS; Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB

Manager Shawn Walters, -----

- Rork's first day was 2nd or 3rd info in the logs
- Bill been around maybe a week
- Did a detail with us:
 - Josiah Oats, Aron Utterback, Billy Gardina- been with the helo since the start of the contract
- I spoke with Josiah and told him that we were going to do troop shuttle
- Willows is the official base
- I told Josiah to:
 - Pick helispots
 - Planning
 - Personnel
- Josiah and Mat L were working on the planning, and Wx
- Half way through the day Jim Ramage would be up here at 1650 hrs for Rork check ride
- Wait for Jim and figure out what to do
- Jim showed up at 1630
- Meeting with both pilots, Matt L., and Jim Ramage and discussed mission and discussed troop, 1700 start
- Feedback from Jim, could accomplish check ride with the troop shuttle
- Jim took my spot as attendant
- Jim stated that he would get everything accomplished that needed accomplished
- Briefed High-Low recon and OAT 32 degrees at 6,000 feet, fuel load was 2500#, also asked for power check for the site, Jim agreed
- We discussed the use of 61s as exclusive use
- Good briefing, all involved
- Departed at 1700
- When the helo left the base, it had a slow take off, didn't really work the ship hard to get out there, just kind of feathered it out there
- 28 degrees at the site at 1730 hours, confirmed elevation
- Checklist done on ICS
- Power Check
- Heard radio traffic
- Witnessed aircraft land for fuel
- Jim got out and grabbed some water and got back into the ship, he did not speak to me
- With just Jim and pilots, same slow take off, went right to H44
- Heard radio, aircraft down at H44

Interview with Shawn Walters, Helicopter Manager USFS
(Notes from Jim Morrison, ASI, USFS)

Date: 8-08-2008

Present at Interview: Jim Morrison, USFS; Gary Morgan, USFS; Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB

Manager Shawn Walters,-----

- First was 761, not 766, than 766 on side, on fire, and 4 people outside of aircraft
- Notified all, split with Utterback
 - Ops specialist, Jeff Powers
- Crash rescue plan activated
- Spoke with Jeff, said need to ensure medical ships on the way
- Didn't know for sure who was on board
- Did ask fuel tender how much fuel was on board, don't know exactly how much, but less than normal for troop shuttle
- First list didn't have Jim's or Rork's name on it
- Call in blind at 2 am, if you need anything, call
- SOP, RASM notified
- Josiah was official manager for Trinity Helibase that day
- Called within 5 minutes at 1945-50
- Said 766 gone down, that was it
- Initial call said 4 people
- Lots of radio traffic
- Medivac 4 patients
- Next call to RASM and HOS
 - That there were 4 survivors
- Mission was moving people from H44 to H36, communicated with Willow
- Main helibase for the incident is Willows
- We were assigned to the incident with helicopters 766 & 506, a 58T
- 766 assigned, showed up July 1st, started working July 4th
- Willows call the helibase and tells them what missions are needed for the day
- Every base has a crash rescue plan and site specific
- Ty Miller was the manager at Willows
- Ask from Willows to launch 506 to help with the effort
- Could hear H44 call Willows, sounded like Vassel, than Matt L
- Commo at H44
 - Land and establish commo, I'm sure that was made with the Matts'
- Plan:
 - Listen to the radio
 - Pass on info as you get it
 - This is what I'm hearing and what I know
- IMT to Air Ops, Air Ops to ATGS to Helibase Manager
- Willows helibase contacts AOBD or ATGS
- Air Support Dennis Kerster within the hour, contacted me and asked are you aware the aircraft is down?

Interview with Shawn Walters, Helicopter Manager USFS
(Notes from Jim Morrison, ASI, USFS)

Date: 8-08-2008

Present at Interview: Jim Morrison, USFS; Gary Morgan, USFS; Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB

Manager Shawn Walters, -----

- Jeff, ATGS also called me
- We knew 4 had left
- Matt L is speaking with airattack
- Scratchy commo
- Giving names to Airattack
- Airattack said we have 26 names
- Josiah picked up at H36
 - Has manifest info
 - Called Jeff he is compiling list from airattack
- Still don't know who
- When fax cam through we started jiving and found Rork and Jim were not on list
- Knew 4 were medivaced
- Knew Rork and Jim were unaccounted for
- Didn't know if Josiah had official manifest
- Knew Rork was flying and Jim was attendant
- Called ATGS at 0200 that Rork and Jim was not on list
- Aaron and I were not knowing what was not on board, this is not acceptable
- There should be X amount
- There should be 36
- Need conformation NOW
- Told by air support this can't happen right now
- I had to go to bed not knowing
- ATGS was trainee Jeff Currier
- It was getting late
- Airattack up, his job was to get that info
- Carson was there and knew that Rork was not on board
- The misinformation
- 4 people, 1 immediate serious, 3 less serious
- Matt called 3 of this one of that
- I don't know who talked to Dennis Brown
- Aaron-Make sure you have accurate info
- I don't know what phase of flight at the time, how the accident happened
- Matt transferred names at 0100
- Airattack asked Matt, Do you want me to tell you who is dead?
- You don't know who is listening, this is sensitive information, do it discretely
- Notification to Willows helibase to airops
- Willows Manager is Ken Weldin, trainee: Jason Petruska, Russ is AOBD
- Energy level:

Interview with Shawn Walters, Helicopter Manager USFS
(Notes from Jim Morrison, ASI, USFS)

Date: 8-08-2008

Present at Interview: Jim Morrison, USFS; Gary Morgan, USFS; Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB

Manager Shawn Walters,-----

- We were excited to get a 61
 - Take it slow
 - Pilots and National office were on the same page
 - We were not Rappeling this season
 - No one fatigued
 - All relaxed
 - Not smoking
- Got a request for water work for a fuel cycle
- We're taking stuff off and configuring aircraft
- Couldn't be a better atmosphere
- It was an awesome environment
- There was no friction
- We were just supporting just the iron, dropping on the Buckhorn
- 36 down at river canyon by big bar
- Planned lightning event and want to take them to 36 because of transportation
- Distance was shorter to H36
- Took crews off fireline
- We used our action plan
 - No SOP
- 506, launch wit bucket, not a medivac, staff on board with bucket, Manager plus 2, it was never involved
- Mercy responded first
- At Willows 0800 brief
- 0700 call from team air support
- Also faxes from team
- Brief was mission for 506, remove tree for the fire fighter that died the days before, they cut up the sections and sling it out of the trees
- Asked for feedback at the brief
 - Discussed Wx
 - Discussed load calcs
 - Discussed fire behavior
- No feedback
- Same with the 506 bunch
- We crossed the "Ts" and dotted "Is"
- Have not used the risk assessment guide, not since I've been there
- SAFECOM, had a chip ligh
- Did the emergence response plan
- We do the crash rescue drills and have training documentation
- Training involved in accident

Interview with Shawn Walters, Helicopter Manager USFS
(Notes from Jim Morrison, ASI, USFS)

Date: 8-08-2008

Present at Interview: Jim Morrison, USFS; Gary Morgan, USFS; Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB

Manager Shawn Walters, -----

- Notification
- Scene size-up
- Approach safely

.....End of Interview.....

Memorandum of Interview: 8 August, 2008

Interviewers: Zoe Keliher, Gary Morgan

Person Interviewed: Shawn Walters: Helibase manager -----

Rotation – Pilot just came in from days off (2 or 3 days)

Co-pilot has been around a bit more (a week or so)

2 helicopters running off trinity base, one is an S-58T (506) construction helicopters. On the mishap day, contacted Josiah Probst to let him know about the troop shuttle. Gave him time to do mission planning, staffing, helispot etc. Josiah and Matt spent a lot of time planning, checked elevations, Weather, OAT, relaying it to Shawn. Halfway through the day notified helicopter inspector would be there to conduct a checkride. Decided to wait till the inspector got there to coordinate everything. Inspector arrived around 1630. Meeting called with both pilots, Inspector, Josiah and Matt to discuss mission.

Shuttle supposed to start at 1700. Inspector felt he could accomplish checkride needs by being involved with the troop shuttle. Inspector took Shawn's spot as the attendant to give pilot check ride. Plan was to fly to H-44, recon for acceptability. Load calculation planning was for 6000 ft and 32 degrees C. fuel load was to be 2500 lbs. Discussed introduction of the S61 into moving people (this is happening more often). When aircraft left base it had a slow takeoff, different from the way they normally takeoff. OAT was 28 degrees C at site at 1730.

When they landed for fuel, Jim came out of the aircraft and got some water then returned to the ship. When aircraft departed after fueling it had same slow style of takeoff. (3 on board). They went directly to H-44. Initial radio call was that 761 was down then the call was made that it was 766 on its side and on fire with 4 people outside the aircraft. Within about 5 minutes, notified R-5 aviation safety manager. Split notification work load with Aron Utterback. Notified Jeff Power, assumed emergency action plan was taking place.

He asked fuel tender how much fuel was put on board, didn't know exactly. Request was less than normal and less than normal for a troop shuttle.

Josiah was official manager for 766, at that time he was at H-36.

Initial radio call did not indicate survivors. Shortly after they knew they needed to medivac 4. Next call to Jeff Power identified this.

H-36 was the destination for passengers from H-44. This was at Big Bar river canyon, there was a lightning event expected and they wanted to move the people off the hill. Big Bar was where their transportation was (ground).

Trinity was a satellite base working with Willow Creek. They had two helicopters, 766, and 506 (S-58T). 766 showed up July 4.

H-44 and H-36 normally communicate with Willow Helibase.

Willow normally contacts Trinity with orders for aircraft operations.

Each base has a crash rescue plan that they develop.

Willow called for Trinity to launch 506 to respond to the crash.

I heard H-44 call Willow.

Regional Aviation Safety manager instructed him (interviewee) to pass on any information as he has it.

Willow Creek was responsible to notify incident management team's aviation director.

766 manager had manifest information and relayed to Trinity. They worked with air support to develop a list of names from air attack.

They worked with air support to develop a list of names of who was on site and account for everyone.

Trinity noticed the pilot and pilot inspector were not on the list of identified people at the site, they notified air ops at 2 AM of this.

Initial report was 3 minor injuries, 6 uninjured, didn't know where it came from.

He knew there were 4 injured, 1 serious, 3 less serious.

An ASGS trainee told Aron and Shawn it was too late to get additional information (2 AM). 26 names were transmitted by Matt at 1 AM.

There was lots of enthusiasm for crewing the S-61. they were trying to take it slow and do it right "crawl, walk, run".

No fatigue noticed, weather was good, everyone was relaxed.

Crew Day started at 0800, get information from Air Support at 0700. Received a call to do one fuel cycle of water drops.

506 mission that day was to remove sections of a tree that was involved in an earlier fatality.

Only safecom he was aware of was a gearbox chip light, they changed the gear box.

Asked about Risk analysis and hazard mitigation, he had not reviewed the documents but was aware of them.



RECORD OF CONVERSATION

Elliott Simpson – NTSB, Air Safety Investigator

Persons Contacted: William Miller

Phone: -----

Date: 8-13-2008

Time: 1700

Subject: LAX08PA259 ; Sikorsky S61N, N612AZ, Weaverville, CA

The following is a summary of conversation with William Miller:

Mr. Miller has been a pilot with Carson Helicopter Services for 15 years. He currently flies the S-61. He stated that the typical work schedule for pilots consists of 12 days onsite, during which a maximum of 36 hours permissible flight hours can be achieved in a period of six days. He stated that it is rare for pilots to reach the 36 hour limit, and that during the past 45 days he has flown 25 hours.

Mr. Miller stated that the takeoff profile in the S-61 would include a hover from the ground to 70 feet then a forward transition to cruise altitude and airspeed. He noted that should the helicopter experience a loss of power, such as an engine failure during the first takeoff phase below 70 feet, the pilot would typically bring the helicopter down vertically without any forward movement. He further stated that should a loss of power occur during the transition from hover to forward flight the only options are to land ahead, because the helicopter would neither be able to sustain a hover or, be able to gain lift. He described losing power in this phase as 'very hard.'

Mr. Miller described the use of the throttle during takeoff. He explained the pilot not flying (PNF) applies full forward throttle on both engines before takeoff, the PNF then brings back the throttle of one engine slightly to balance load between the two engines. Typically one of the throttles would be retarded about ¼ inch. Throughout the takeoff phase the PNF is required to hold both throttles in position.

He stated that it is a normal procedure after refueling for pilots to swap seat positions and flying duties. He noted that Roark was known for making slower than average take offs.

Mr. Miller stated that he had never flown the accident helicopter. He further stated that most S-61 helicopters he had flown on had a custom collective restraint device similar to a bungee cord.

Personal statement of aviation mishap on the Iron complex that occurred on August 5th 2008. I, Mark Villalobos forest service employee was assigned to the Iron complex as a radio operator with an O number of O-709. At approximate 19:40 the radio box contacted the HECM's at H-44 regarding the assistance of ORL in the personnel transport at H-44. ORL was enroute to H-44 to pick up the HECM's from Willow Creek Helibase that were inserted earlier that morning. The HECM's were to be extracted because HECM's from 766 crew were now staffing H-44. The HECM's responded to the box to standby so that they could determine if ORL could assist in the personnel transport. The next transmission from H-44 was that there was an aircraft mishap with fire. At first, I asked the other radio operators if I had heard the message correctly. We waited 30 seconds and received the same emergency transmission and that was there was an "aircraft mishap with fire". At that time the radio operators called for Ty Miller to come to the box for an emergency. At 7:46 I begin taking notes because I was not manning neither the victor or the take off and landing radios. At 8:20 I left the box to assist the DECK coordinator in providing lights for incoming aircraft. So that incoming pilots can see there pads. Note taking duties were taken over by Danny Corcoren, one of the helicopter coordinators. At 21:50 I return to relieve Danny of note taking duties.

Winds were noticed at helibase to be variable in the afternoon shifting from north to south and south to north. The largest gust recorded that day was 28 mph from the north and the day previous was 33 mph from the north.

08/07/2008 Matthew Vassel -5 [?] [?] [?] [?]

USFS Employee/Shasta Trinity Fire fighter

- Earlier in the Day was located at Willow Creek Heli-Base for Radio Duty
- Matthew was later relocated via helicopter (not Tanker 766) to Heli-Spot H-44 to assist with troop shuttles back to Willow Creek Heli-Base.
- Matthew observed Tanker 766 orbit H-44 and then he described the aircraft decelerating to an Out of Ground Effect (OGE) Hover prior to making its final approach.
- Matthew also helped arrange the load manifests for the troop shuttles.
- It was communicated to Matthew that the allowable load for Tanker 766 was 2,497 lbs OGE which was based off the Load Calculation that the pilots did previously at Shasta Trinity Heli-Base.
- Matthew did observe what he considered to be a slow pick up during the third troop shuttle (accident)
- After A/C accident Matthew observed fire coming out of the emergency exit.
- He also stated that he observed Bill Coultas (Co-Pilot) in front of the A/C and that he pulled his flight suit off.
- Matthew proceeded down the hillside towards the wreckage and went to assist Bill Coultas.
- He stated that Bill said that he was in pain.
- Matthew also attempted to inventory the rest of the people left on H-44 and help set up a grid search of the hillside and crash site.
- He discovered that Jim Ramage was onboard the A/C around Midnight.

Interview with Matthew Vassel, USFS Senior Fire Fighter
(Notes from Jim Morrison, ASI, USFS)

Date: 8-07-2008

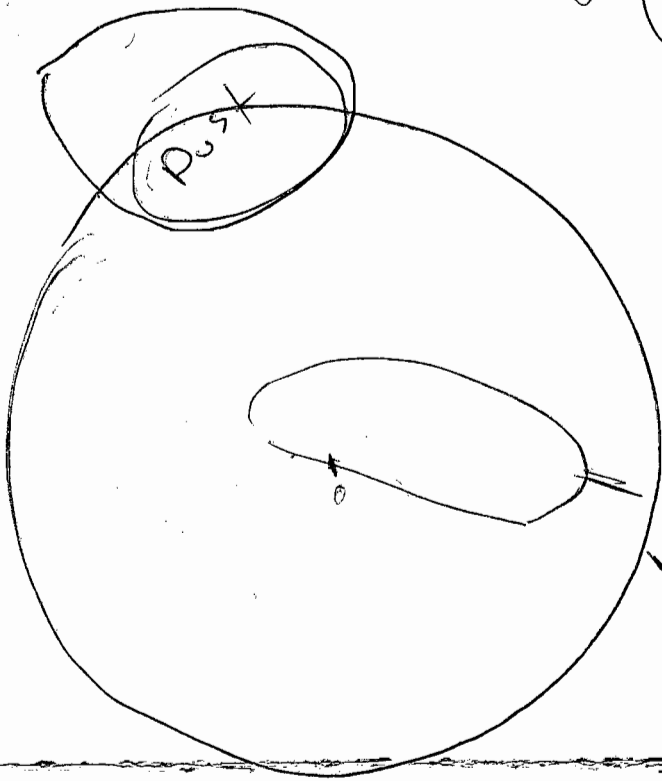
Present at Interview: Jim Morrison, USFS; Dave Glose, USFS, Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB; Elliott Simpson, NTSB

Matthew Vassel, Senior Fire Fighter-----

- I was at Willow Creek doing ABRO
- I was asked to do manifesting of crews
- Plan changed to do the transport one hour later than planned
- 7HE met with Ult
- Used weights and 25# for IA pacs
- Drivers were first
- SOF gave brief
- Had some heavies come in and dust abate, they had mediums come in and dust abate too
- 766 came in and did a couple of loops and did a power check
- Asked him to lift because of dust, I couldn't see my feet
- Settled in new spot, had 9 inches to spare
- Knew the allowable was 2497, not positive, got manifest and got others out, started with the lightest crew and went heavier with the fuel burn

.....End of Interview.....

MAN WAVE
H B



10
1
2
3
4
5

1000 - 1000 - 1000 - 1000 - 1000

1000

On at 0700

0800 Briefing with Helibase personal and pilots.

Review daily operations, weather, and communications. Review IAP

0830 meet with pilots and discuss load calculations. Load calculations 7000 feet and 25 c 3500 feet and 32 c 500 feet and 38 c. Weather Taken from the IAP

0900 physical tanning with crew.

1030 Brief with Red shirts daily duties and assignments.

1100 possible mission request comes in.

Meet with pilots of 766 and request an additional load calculation for 6000 feet and 32 c Weather Taken from the IAP

1130 meet with red shirts and review rappel ops. For S61

1200 Lunch

1230 mock ups for the S61

1250 Mission comes in for 766 water drops in Div. F off Trinity Helibase @ 1320 work one fuel cycle and returned to THB 1510

1400 Meet with Matt Lingenfelter and discuss how to perform Troup-transport of 2 crews from H-44 to H-36

Key points: assignments, contingencies staying over night, ways out if there is no A/C available. Review maps of H-44 and H-36

1615 Jim Ramage arrives at THB and briefs with Helibase manager Pilots and manager. Jim was put on the load and was going to perform a check ride for Roark as well as provide in-flight CRM.

1630 Meet with IA Load, Jim Ramage, and Pilots at pad 2. Full passenger briefing. Done by Roark

1705 Depart THB in route to H-44 for high level recon.

1720 Arrive over H-44 perform a High level recon and approve sight for Landing. 766 orbits and performs power check out 28 power good.

1733 Arrive at H-36 Drop off Josiah Obst, Richard Hanover, Dayna Tarapacki, and Josh Smitson.

MEMORANDUM OF INTERVIEW
WITH TY MILLER, HELIBASE MANAGER
530-629-2498
IN REFERENCE TO THE N619AZ ACCIDENT
OF AUGUST 5, 2008

AUGUST 9, 2008
WILLOW CREEK HELIBASE
WILLOW CREEK, CALIFORNIA

DAVE GLOSE (interviewer): Describe the effectiveness of communications from Willow Creek Helibase in the days before the accident and on the day of the accident.

TY MILLER: Command frequency has been poor and not always heard and not always monitored in the communications trailer. The command frequency was the weakest link in the system. The report of the accident was not heard in the radio communications trailer.

At the time of the accident, Helicopter N420RL was on its way to the fire. Mike Reid was the manager and was on board at the time. When the accident occurred they went to the scene at H-44. The Helicopter Coordinator (HLCO), Mike Blackhall, also diverted to the accident site.

I requested type I helicopters to respond to the accident site. Those helicopters were tankers 767 and N1043T.

Mike Reid in N420RL provided feedback to Helibase prior to HLCO's arrival. Air Attack arrived in a fixed wing later.

Helicopter 767 arrived on scene and asked the personnel on ground whether to drop water on the burning wreckage. Tanker 767 made one drop and then returned to helibase due to low fuel.

Helicopter N1043T made also dropped water on the wreckage. That aircraft made at least two water drops, maybe more.

Helicopter N903CH, a Sikorsky 58T, also arrived but never made a water drop.

The emergency response from helibase was coordinated immediately. The Teton A-star, 7HE, departed helibase first with manager plus two EMTs. The Price Valley 212HP, N215KA departed shortly after also with a manager and two EMTs.

Mercy Air from Redding, which eventually transported the injured pilot, arrived on scene. It was not ordered by the Helibase. Assume it was ordered by the Medical Unit.

I, after receiving the okay from Jeff Currier, ASGS, jumped on helicopter 2JG, the Bell L3 with two other EMTs, and departed helibase for the accident. I'm a Paramedic. The helibase management was left to Brad Koeckeritz (HEB1) and to Jason Petruska (HEB1(t)).

The National Guard Blackhawk (Jolly 91) arrived on scene at some point but never landed. It remained on scene and eventually followed N215KA to Weaverville where two injured were transferred from 5KA to the Blackhawk. The Blackhawk then took those two injured persons to Redding hospital.

Helicopter 7HE took one patient all the way to the hospital in Redding.

DG: What kind of Crash/Accident/Medivac Response preparations had been in place at the helibase?

TM: Helicopter 7HE had been identified as the Medivac helicopter primarily because it had qualified EMTs and the medical response equipment. At the time of the accident, N215KA was also asked to respond because they had more on-board space to transport injured if necessary. They also had EMTs, although they were probably not current/qualified at the time.

Crash rescue personnel at the helibase were prepared, had been attending briefings, and performing drills. They performed at least two drills prior to the accident.

DG: Was there confusion over the number of unaccounted persons? How many were you hearing?

TM: There was question over the number on board - whether there were 13 or 14. This question was due in part to whether the manager was on board the helicopter or not. Jeff Currier (ASGS(t)) was apprised of the numbers.

DG: When and how was the decision made to pull line personnel from H-44?

TM: Not sure when the decision was made. But the decision was based upon the forecast for lightning the night of Aug. 5th, and the risk it posed to firefighters.

DG: Did you have concerns about pulling everyone that afternoon and did you voice those concerns?

TM: Yes, I had concerns. The risk and hazard of flying personnel was my primary concern. I spoke with either Ted Hass or Jeff Currier and asked rhetorically why such a decision was made. I did not fully voice my concerns to anyone.

DG: Did the Air Ops Branch Director or Air Support Group Supervisor ever come out to the Helibase at Willow Creek?

TM: Yes. Ted Hass, ASGS, came out occasionally. Jeff Currier, ASGS(t) came often. Russ Gordon, AOBD, once or twice.

DG: When was the H-44 helispot established? Who approved H-44?

TM: Not known. It was established before this current team took responsibility for the fire.

DG: Did you ever land at H-44 and evaluate the helispot?

TM: No. I flew the fire and observed the spot from the air but I did not land at the helispot.

DG: H-44 did not have a pad marker. At least it did not have one when I was there yesterday. Were the various helispots on the incident marked with numbered pad markers?

TM: Not all. Some may have markers others did not.

DG: How were incident information and briefings given to the Trinity Crew each day?

TM: Phone calls were made to give any pertinent information regarding planned days operations. Normally spoke to Larry Helsley (sp?) or Billy Gardinio (sp?).

DG: Who ordered tanker 766 for the missions on August 5th?

TM: Likely requested by Air Attack or the Helicopter Coordinator for tactical missions such as water delivery. The determination to use tanker 766 for the passenger hauling mission to be completed that afternoon was made by the helibase.

DG: Did the passenger hauling mission for that afternoon start as originally scheduled?

TM: The mission began earlier than originally scheduled... there was no perceived sense that the passenger transport mission could not be accomplished by shutdown time.

DG: What additional comments or observations do you have that we have not touched on at this time?

TM: Helispot 44 had been used by helicopters numerous times. Helicopter N7011M had used H-44 numerous times. Pilots never expressed dissatisfaction with the dimension, approach, departure of H-44. Nor did any Helicopter Manager, Helicopter Crewmember, or pilot.

DG: How often was H-44 used?

TM: H-44 was used on a recurring basis.

DG: Who ordered the EMS Lifeflight and National Guard Blackhawk?

TM: I'm unsure whether the Medical Unit Leader was making decisions on transport destinations but they likely ordered the Blackhawk and Mercy EMS Lifeflight.

TIMOTHY BROWN
TO BE FLOWN NEXT (BEFORE)
STAY WITH FIRST 2 WOUNDED (AFTER)

APPROX. TIME 1930
AIRCRAFT LIFTED STARTED
FORWARD, HESITATED THEN
WENT FORWARD AGAIN,
TOP ROTOR HIT TOPS OF
~~SOME~~ TREES AS THEY LEFT.
T. NICHOLSON NEXT TO ME
SAID TO GROUND CREW "WHAT
THE HELL WAS THAT?"

(1)

ALMOST IMMEDIATELY I HEARD
AIRCRAFT HIT GROUND AND
SAW DEBRIS FLYING IN MOST
DIRECTIONS, APPROX. 15-20 MIN
LATER FIRST 2 WOUNDED WERE
HELPED BACK TO H44 BY 4
PEOPLE, MY CREW STARTED
GRINDING FOR OTHER PEOPLE
WHILE MYSELF AND J. BELL STAYED
WITH WOUNDED. SOME OF MY
CREW HELPED CARRY 3RD VICTIM
BACK TO H-44, 4TH VICTIM WAS
BROUGHT BACK BY OTHERS

(2)

~~FOLLOWED POSNER'S~~
FOLLOWED ST. POSNER'S
DIRECTIONS FOR EVACUATION
OF WOUNDED.

FERGUSON 19B
C-146

(3)

08/08/2008 Tim Brown – ? ? ? ?

Ferguson Employee/Squad Boss

- Was at Heli-Spot H-44. Was supposed to be on fourth load of troop shuttles.
- On the approach when the brown out occurred he said that cargo was thrown around in the air. (Cardboard boxes etc).
- Heard the aircraft throttle down after landing, then back up before takeoff.
- On the accident take off he said the engines sounded like they were struggling.
- A/C climbed vertically to approximately 50' AGL. He also stated that he observed the A/C's nose get low, then level, then the nose lowered again.
- Claimed there was an increase in engine noise prior to striking the trees.

Interview with Timothy Brown, Squad Boss, Ferguson Management South
(Notes from Jim Morrison, ASI, USFS)

Date: 8-08-2008

Present at Interview: Jim Morrison, USFS; Shawn Moretz, Carson Helicopters Services Inc.; Elliott Simpson, NTSB

Timothy Brown, Squad Boss, -----

- Loaded up next stick
- Hesitated when he first took off
- Ran down to it, it caught fire
- 2 already out
- Started first aid
- 10-15 seconds it was over
- Helped with first aid
- Struggling when it first took off
- Boom
- Wasn't very high in the air, took off, went forward, hesitated
- Engine sounded like it was struggling, than the engines geared-up and than it went into the trees
- Engine geared-up before he hit the trees, but he was close
- One guy was dazed the other had teeth knocked out
- A fire started a couple seconds after it was done
- Fire burned for quite awhile
- Heard people screaming, after 10-15 sec, that was over with
- Then started griding
- Saw 3rd guy running away from the helicopter
- Telling me where he was from, call my family
- Then saw 4th, pilot
- Watched aircraft come in two times prior
- First time, had to move further away because of the dust
- Usually they go up first then forward, he was already going forward as he was going up
- Maybe going NE on departure
- 13 Ferguson left on the sight
- Next load 10
- Next load 3 plus ground crew
- Rotor wash was blowing stuff around
- After landed they powered down, before taking off, they powered up
- Before hitting trees they powered up
- Brian was completely coated with dust after landing

.....End of interview.....

Interview of Jackson Rowsell
(Notes from Jim Morrison, ASI, USFS)

Date: 8-07-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS, Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher

Jackson Rowsell EMT

- Notified about 7:45-50ish that helo was down
- Grabbed our medical kits and sked
- L-4 was circling (Zion Helicopter), arrived about 5 minutes after crash
- 4KA was on pad
- Landed after 4KA lifted off
- We shut down than "Reach" helo came in, took pilot
- Than departed with patients John and Richard
- Did a list of people
- The Furgunson crew did another grid
- 15' of tail boom and tail rotor still in place
- Flagging about 50' around helo
- Richard had chest pain, left shoulder bleeding, pain in right leg
- John, spitting up blood, burns on face and the skin was peeling, turned him over, back broken.
- Pilot missing teeth, face burned
- People were running out of the nose of the ship
- Tree strikes approximately 70 feet up

.....End of Interview.....

My Name is Chancey Ross
I am a member of the (A)
Shasta Trinity Fly Crew
766 was the ship I worked
on, I came up to H 44
with Matt Lingenfelter
Jessica Huntoon, Brian
Buchner, and alex Rhea
our mission was to
transport Ferguson, and
Greg Back Hand crews to
Big Bar Helispot.
Matt took control of
the Helispot when we landed
Myself and the other 3
loaded crew members and

~~The safety area was~~
~~roughly 80-100 yds~~
~~away~~ while I followed
I gave the "Pilot" Bill ~~the~~
A thumbs up that the door
was closed and they were (3)
good to go the safety area
was 80-100 yds away
there we all turned around
and watched 766 take
off I did not hear any
thing but it seemed like
they were lifting slow
~~ly~~ and moving forward
we saw 766 brush the
top of a tree and then
quickly started ~~losing~~
Chancey Ross

Cargo. The first 2 loads
went well, 766 went (2)
back to Trinity Helibase
to refuel. It then came
back and land, Jessica
Brian ^{and alex} lead the third load
out to the ship while I
picked up the rear
~~the~~ the crew the loaded
and Jessica helped with
seatbelts while Brian
alex and myself loaded
cargo, when we were finished
Brian, alex, and Jessica
exited ~~to~~ the safety area
while I closed the door
and followed
Chancey Ross

altitude, then I took
off running. When everything
stopped myself and (4)
everyone else ran down
~~to~~ to the ship I saw
1 man come out the ~~the~~
~~the~~ Northside of the ship
and I come out and
take off running to the
south I ran after
the guy running
to the south and stayed
with him (Mike Brown)
until he was air lifted
out

Chancey Ross

08/07/2008 Chauncey Ross - [?] [?] [?] [?]

USFS/Shasta Trinity Heli-Base

- Explained Mission was to drop off of small crew at Heli-spot H-36. And then for 5 troop shuttles from H-44 to Willow Creek Heli-Base. Mission started @ approximately 4:30.
- Chauncey was a pax aboard the A/C
- During first leg of flight a power check was conducted on the A/C.
- Pilots had incorrect coordinates for H-36, flew past the H-36 then reversed course for a landing at the Heli-Spot.
- After departure from H-36 Tanker 766 transitioned to Heli-Spot H-44. On initial approach Chauncey stated that the A/C caused a significant brown out and aborted the approach. Tanker 766 then made a successful landing on the next approach.
- Chauncey then exited the A/C to assist loading pax aboard the A/C.
- The first two loads were successful and no anomalies were reported. The A/C then returned to Shasta Trinity Heli-Base for refuel.
- When the after returned for the third troop shuttle (accident). Chauncey reported that the initial takeoff of Tanker 766 seemed slow and labored
- Once the aircraft transitioned into forward flight the A/C came into contact with a tree around the belly section. The tree then bent and broke off.
- Almost simultaneously after that event the A/C descended vertically then the main rotor blades came into contact with trees.
- Chauncey then proceeded towards the A/C and witnessed one of the pax that had laid down in front of the A/C. The pax then got back up and ran farther away from the A/C. Chauncey claimed this individual was Mike Brown (one of the survivors). Chauncey then approached him and stated he initially seemed very aware of his surroundings and did not seem to have any serious injuries. As time went on Mike seemed to become more disoriented.
- Approximately 5-10 mins later an aircraft arrived and dropped water on the wreckage.
- Chauncey also stated that the aircraft seemed clean and in good condition.

Interview with Chauncey Ross
(Notes from Jim Morrison, ASI, USFS)

Date: 8-07-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS, Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB; Elliott Simpson, NTSB

Chauncey Ross,-----

- At 1430 had mission for 5 loads, Greybeck and Furgunsan crews
- Ramage showed up
- Rork needed check ride, so sounded like good plan
- Flew around and did power check
- Flew past H36
- Flew to H44
- Landed than picked back up
- Flew around 2-3 more times, looked like a tornado
- Flew 100' to the right
- Took all of our gear
- Spoke with Matt
- Loaded and all went good
- Loaded again, and did the same thing
- Fueled
- 3rd load, moved crew over to right side
- Gave Bill a thumbs-up
- Aircraft taking off, looked labored
 - Put nose down
 - Drifted right
 - Saw small tree hit nose and broke off
 - Rorks got it,
 - It just dropped
 - Ran into the tree
 - Debris flew past us
- Looked at Matt thinking what to do
- All ran down there, aircraft on left
- Saw guy on left side, stops, and goes into a ball
- Asked him to get up and get away from the ship
- Saw other guy
- 2 explosions in the helicopter
- Chased down Mike Brown and got him in the stokes
 - Last one up

.....End of Interview.....

A.R. Hea ^{506 crew}
8/5 approximately
1935 766 Liffed
off. The Helicopter
did not look like it
was lifting & the
right landing gear hit
the tree then tail
rotor after that ~~the~~
766 went down. after
the debris stopped
I ran down hill
towards 766 seen
one person walking away
then a second. people
had grabbed them then
I saw a third person
①

running south of
crash site I took
off after him. found
him I was with one
of my own crew members
we ~~assist~~ help him out.
then I ran over to another
crew member who
was with our pilot
who was badly injured.
I ran up the hill for
medical gear, I told my
crew boss what I have
seen and the injured
people, grabbed back
board o2 and a tent
②

My crew member
grabber grabbed a Q.B
of water another fire
fighter helped with back
board, reached the
pilot and other crew
member we could
him off put him on
back board and took
him to helispot where
we got assisted by EMT
got him ready for med-
vac then help with other
patients. My job before
all this happened was
Carp.
③

08/08/2008 Alex Rhea- 27 32 32 2

USFS/Shasta Trinity Heli-Base

- Assisted with loading of Tanker 766 for Troop Shuttles
- Standing approximately 80-100 from A/C point of departure
- Did not see A/C take off initially
- Claimed A/C sounded normal (wearing flight helmet)
- After looking up stated that A/C looked like it didn't have power.
- A/C drifted towards the south before departing east
- A/C maintained a level attitude through entire take off profile.
- Observed tree hitting bell section of A/C more on the right side
- Alex claimed he saw Tail Rotor strike the trees first
- After accident he ran down the hill toward the right side of the wreckage.
- Alex claimed he could hear the fuel tanks venting.
- Assisted Bill Coultas (Co-Pilot). Stated that he saw him running down the hill on fire.
- He did not attempt to remove people from the wreckage.

Memorandum of Interview: 7 August, 2008

Interviewers: Zoe Keliher, Gary Morgan

Person Interviewed: Alex Rhea, -----

The Landing seemed normal.

On lift off, rotor wash was causing pebbles to hit his face. Something was not right, usually it is lift up, nose down and move forward. This time the pilot didn't lift up high enough, it didn't look like he had full power.

Everything sounded right.

After crash – Ran downhill, aircraft was on its left side and already on fire. They yelled at me to stop running. Went around other side and saw survivors. Saw nothing inside, it was engulfed in fire.

Helped Mike Brown and Co-pilot. Co pilot asked what happened and he could not remember. Co pilot asked what had happened, he asked about the pilot. The co pilot was burned badly, running down hill on fire. There was no attempt to get people out due to the fire. He could hear tanks venting. First hit was on right side of aircraft belly near right landing gear. When it hit the tail rotor was when it started to go down.

Winds were 3-7 out of the South Southeast.

Felt pilots and crew worked pretty well together.

Mike Brown found downhill and southeast of the aircraft. Co-pilot found downhill and slightly off to the south of the aircraft.

DATE: August 15, 2008

SUBJECT: Discussion between Dave Glose and Michael Reid, Supervisor, Zion Helitack

On July 30th, helicopter N7011M landed at what would become H-44. The pilots identified a tree that would need to be removed to improve the site for type I helicopter operations.

On July 31st, a member of the Zion Helitack Crew was directed to go to H-44 to cut that tree. During the briefing of the Zion Helitack Crewmember, it was specified by the Type 1 Helibase manager that the crewmember was to take down the tree as described by the pilots of N7011M; however he was not to cut down the large tree located to the West of the established landing pad.

The sawyer, upon arrival to H-44, had initially identified what he thought was the tree explained in the description given during his briefing. He cut this tree which was to the East, Southeast of the helispot.

Later, the faller received information from a hotshot crew that the type 1 helicopter N7011M was landing in a different location than that of which the faller had originally landed on. This new clarification led the faller to believe that he had cut the wrong tree down, and thus he decided to take a second tree down. The second tree was believed to be the tree that was originally described to the faller during his briefing at the Helibase.

The trees that were felled were more-or-less east or east southeast of the landing area. As directed by the Type 1 Helibase manager, no other trees were removed. Thus no trees were cut downhill from the landing spot to the south, and the large tree to the west of the landing spot was also not cut.

There was no official pad marker at the helispot. A rock was wrapped in orange flagging and placed on the flat rocky spot. This was the spot normally used by the light helicopters. Type I, heavy helicopters, commonly landed further north or northwest of that location.

During the initial briefings of the Zion Helitack Sawyer, there was a statement made by an unknown person standing within earshot of the conversation, that the sawyer should limit his cutting to only those trees necessary. Following this, the sawyer, seeking clarification, was told by the

Type 1 Helibase manager that no other trees outside of those identified by the pilots should be removed.

THE FOLLOWING IS THE ACCOMPANYING E-MAIL THAT WAS SENT WITH THE ABOVE STATEMENT:

Dave,

I reworded and added a couple of things... your original is still attached below, but I also attached a modified.

- The primary changes included a cardinal direction correction (this is based on the fact that South is in the direction of the meadow just downhill from the spot) concerning where the trees were cut in relation to the helispot.

- also I talked to Josh and my lead Ben about the briefing they had received. They both remembered Ben saying to Josh that he should take any trees Josh felt needed to come down... an unidentified person stepped into the conversation and said they should avoid cutting any trees unless it was necessary... Ben then moved the conversation slightly out of earshot of this individual where they (Ben, Josh, and 11M manager) decided to get clarification from the Helibase Manager as to what could be cut. In the end Josh was advised by the Helibase Manager to not cut any trees other than those identified by the pilots, he was specific about not cutting down the Large tree which sits to the West, Southwest of the helispot.

I think I captured the basics of this in the modified statement.

I tried to clarify with my crewmembers whom the individual was that stepped into the conversation. Ben assumed he was some sort of resource advisor, however was really unsure... he never clarified what the persons position was. This person was not a familiar face at the helibase.

I hope this helps, please call if I have confused things for you. It is my hope that the pieces can be put together correctly, as I know it is probably coming in as a jumbled mess...

Best of luck,
Michael Reid
Helitack Supervisor
Zion N.P.

Josh flew in on 420RL the Zion Ship... he flew out on 11M the Wasatch ship... Let me know if we can be of any more help...

It was observed several times departing in the direction of the accident site... although it's landing would be parallel to the trail or nose to the North... it would pick up and pedal turn to the right and depart towards the downhill side facing east (or yes in the direction of the accident site)... Josh did not see how 766 or 11M was departing the day of the incident... but on several occasions days before the incident Josh observed the helicopters departing as described above.

08/08/2008 Eric Panebaker - [REDACTED]

Jered Hendee - [REDACTED]

Seth Weber [REDACTED]

EMT Group Dispatched to Heli-spot H-44 out of Willow Creek Heli-Base

- Received notification of the accident around 19:40
- Arrived approximately 20-30 Minutes after accident in BHT 212
- Body Row was already up at the Heli-Spot
- No attempt to pull people out. Aircraft already consumed by fire.
- Stated that a Ferguson employee (Blond Hair, Side Burns) took a picture of the A/C before it crashed.
- Took a large amount of pictures that were given to the NTSB.
- First set of vitals at 20:20, pictures soon after.
- Stated Medical conditions of the 4 survivors.
- No known fatalities. Not in their job description to notify of deceased.
- Noticed 12 Pax on the load manifest.
- Stayed on H-44 till the next morning.
- Commented of a USFS employee that spoke about a collective lock on the A/C possibly being the cause for the accident.

Memorandum of Interview:

Interviewed: Price Valley Heli-rappellers

Phone

Date: August 8, 2008,

Interviewers: Gary Morgan, Zoe Keliher

Price Valley Heli-rappellers were some of the first responders to the mishap. Team consists of Pilot, Manager, 2 emergency medical technicians, 1 paramedic, and 2 firefighters. They were told about the accident around 1940. They arrived from the west and did not see the crash site. They were using a bell 212, 5KA out of willow creek Helibase. It took about 10 to 15 minutes to get to the site. They had 2 EMT and 1 paramedic.

Eric and Seth came in to set up control of the scene and take over the site. They split around the aircraft and tied in with Ferguson group. The fire was about burned down by then except magnesium. They did not speak with the survivors.

Seth mentioned that he had heard of the aircraft having a bungee chord that was used to hold down the collective when they were on the ground. Chauncey on Trinity crew rides up front and said the right front seat uses a bungee over the collective.

When asked about reporting fatalities they said they were trained not to announce that on the radio.

They remained on the hill until Law Enforcement showed up.

They turned in photos that they had taken at the scene.

①
As the helicopter lifted off, I was watching from the trees behind the supplies.

② The engine sounded very labored and I saw it flying very low headed SE, barely clearing the trees. I saw parts of trees flying back towards us and after a brief delay people started yelling. First people stood as if uncertain of what had happened. Then we started running toward the crash

site. I tried to maintain some order and yelled to the Ferguson crew members that we would go help, but had to have order. They followed me to the ridge top where the helitack crew had stopped; we saw the crash, fire and smoke and someone yelled "There's someone walking!"

Someone else yelled "stay back the fuel tanks are burning". I ran down to the victim, John, threw his arm over my shoulder and tried to help him uphill.

③ We fell and I called for help. Someone else ran down and helped me lead him back to the helispot.

I assigned people to bring first aid kits, sleeping bags, etc. and ~~try~~ tried to make the victim comfortable.

Another victim was brought up, bleeding from the mouth (Richard). I assigned people to help him and they helped clear the blood.

I assigned two people to help John ~~that~~ went to look for others survivors. Someone showed me where Mike was and I made sure people stayed with him.

Helitack members were with a survivor (Bill) so I went and found two people to start grading SE of the

Crash area. The medics began arriving so I went to help organize the treatment area.

③

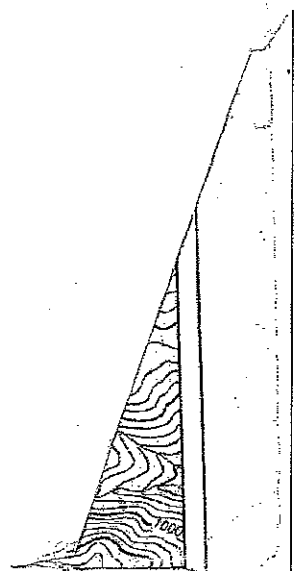
During the initial phases
I heard several small
explosions from the burning
helicopter. I did not hear
anyone inside, but was
almost completely focused
on John and only noticed
that the tail was uphill and
it became totally engulfed
in flames very quickly.

I was surprised each time
another survivor was found
as the helicopter crashed and
burned so quickly.

~~John Doe~~

8/3/08

2211 hrs





RECORD OF CONVERSATION

Elliott Simpson – NTSB, Air Safety Investigator
Zoë Keliher – NTSB, Air Safety Investigator
Dave Glose - USFS;
Sean Moretz - Carson Helicopter Services Inc

Persons Contacted: Scott Posner

Phone: [REDACTED]

Date: 8-7-2008

Subject: LAX08PA259 ; Sikorsky S61N, N612AZ, Weaverville, CA

The following is a summary of a conversation with Scott Posner:

Mr. Posner is the task force leader for the Iron Complex (Buckhorn fire division Echo), and a witness to the accident that occurred August 5th 2008.

Mr. Posner stated that he received a weather briefing by the fire weather supervisor earlier in the day. The supervisor confirmed that there was lightning in the region and the decision was made that should the lightening materialize, an order would be given to move all fire crew from the mountain. Later in the day Mr. Posner was informed that the lightening was more likely, and arrangements would need to be made to remove the crew from the mountain.

Mr. Posner was assigned to be the last to leave the site and be in charge of all firefighters remaining on the mountain. Two loads of firefighters departed without incident. The accident helicopter then came back and was unable to land due to dust in the area. The helicopter then circled the area and landed in a location further to the south.

Mr. Posner overheard a member of the fire crew state that one of the first departures of the accident helicopter appeared to be low, and close to the trees.

For the accident flight he stated that the passenger and baggage loading sequence was uneventful, he took cover behind a tree, and observed the helicopter take off. He noted it was very dusty and windy, and he could not initially see the helicopter clearly. He then observed the helicopter rise out of dust, then hesitate, and then moved forward. He stated

that it appeared low and was just clearing the tops of the surrounding trees. The helicopter appeared to hesitate, the tone then changed from that of a 'loaded' engine to a 'slam slam slam' sound . He noted that he is familiar with the blade 'slap' sound usually made by helicopters, and the sound heard was much louder. He further described the sound as 'very sharp' and that it was obvious something was wrong. Mr. Posner then moved forward out of his position to get a better view, shortly thereafter he heard a cracking sound and observed tree sections flying towards him. He continued to run towards the helicopter as it disappeared from view over a sloping rim, he then heard the sound of a large collision that he believed was the helicopter striking the ground. He continued to run towards the brow of the hill and looked down to see the helicopter on its side with the belly facing to the right, he observed smoke emitting from the structure and shortly thereafter he witnessed flames erupt from the inside of the helicopter and rapidly spread to the outside.

Mr. Posner then observed a passenger about 10 feet forward of the helicopter walking up the hill towards him. Fire crew shouted at the survivor, warning him of the possibility of the helicopter fuel tanks exploding. Mr. Posner ran down the hill to assist the survivor and helped him up the hill. Once back at the top of the hill he looked back and the fire had become very intense, he did not believe at this stage there was any hope of survivors being onboard. He observed a second survivor being assisted up the hill by another fire crew member, and further beyond the wreckage he witnessed two more survivors being given EMS treatment. He then began to cordon off the accident scene and start searching for survivors in the surrounding wooded area.

Mr. Posner stated that it was not dark at the time of the accident, he estimated the temperature to be in 65-75 degrees range.

Mr. Posner reported that after the accident he visited one of the survivors, Rick Schroeder at the hospital. He stated that Rick relayed that while onboard the helicopter, it did not sound normal, and that it did not gain much altitude. Rick also relayed that prior to the accident the passenger in the forward seating area turned to the rear passengers and yelled for everyone to get their heads down.

Interview with Matt Posner, Task Force Leader, Division E

Date: 8-07-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS; Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB; Elliott Simpson, NTSB

Matt Posner -----

- Informed day before to stay on division for another day
- IMET for team, Iron Complex, issued a warning that there might be lightning, the reason for the mission, transport crews from H44 to 33
- Greyback had a slop-over they were dealing with, holding the line was important
- Arrived at H44 at 1600
- Fred gave the Safety brief on LCES
- Crew manifest were coming in
- People that were driving were going first shuttle so they could get their rigs
- I was on last crew
- There was two briefings by helitack
- First attempt to land there was too much dust
- At the accident time:
 - Loading was normal
 - Took cover behind the tree
 - Aircraft took off, dusty and windy
 - Aircraft rised, hesitated, and moved forward
 - You could hear the slam, slam, slam
 - Aircraft moved forward, down and out of sight
- Furgunsan crew started running, aircraft on it's side, belly facing NW
- Smoke coming out of it
- Saw flames inside and outside of the ship
- Saw John walking out
- Threw John's arm over my shoulder and started assisting up the hill, I hollered for a Fergunsan crewmember to help me, he did, put John's other arm over his shoulder
- John was bleeding out of his mouth
- John was vomiting
- I took over the scene
- I assigned other to grid area for other survivors
- I heard minor pops and explosions
- Matt was immediately on radio putting out info
- Visited Rick Shrouder at the hospital
- John said he kicked the f----g window out
- At hospital, Rick seemed low, sounded bad
- Guy behind pilot said "duck, get down"
- Said he knew he hit the tree
- Aircraft was flying over
- Matt Lingfelter did a good job

Interview with Matt Posner, Task Force Leader, Division E

Date: 8-07-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS; Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB; Elliott Simpson, NTSB

Matt Posner -----

- He was talking with incident command
- Seth said he was taking care of investigation
- Hitting repeater was sometimes difficult
- Helo hesitated, forward progress stopped
- Clearing first trees, maybe 40 feet
- Wasn't dark at that time
- Temp was low 70s or high 60s
- There were 2 previous loads
- First approach, coming close to trees, didn't land
- Second approach moved to new site
- Offloaded passengers, loaded passengers
- Each time kicked up a lot of dust
- Very strong ship, slapping the air
- First helo in was a light, brought in a helitack
- There was discussions about getting in late

.....End of Interview.....

Memorandum of Interview:

Interviewed: Josiah Obst Helicopter Manager Tanker 766 (N612AZ)

Phone -----

Date: August 8, 2008,

Interviewers: Gary Morgan, Zoe Keliher

Aaron normally manages 766 but on that day he was handling the S-58T (506) which had a mission so he took over management of N612AZ.

That morning he checked weather, had breakfast sat in on the briefing, checked maps and fire information. Pilots gave him the load calculations. He went over the frequencies, maps and missions for the day. They used the helibases brief checklist. They had a 2nd brief for the "redshirts" (Trinity Helitack crew) 506 crewmembers at 10:30. They did physical training. At around 11:30 they got a call for a troop shuttle. At 1250 they got a call requesting water drops on Division F. They made one cycle of water drops (1.5 hours) returning around 1440. The crew ate lunch.

There was more information on troop transport around 1400. Matt and Josiah briefed the roles and duties for the troop transport.

At 1615 Jim Ramage showed up. Roark (pilot) came down and they briefed at the captain's office. It was decided that Jim would be on board and Josiah would be at H-36, Matt at H-44. They went to the aircraft at 1630. Roark briefed everyone using his briefing card. The crash position was briefed. In this aircraft the position is to lean forward. The seat backs fold forward.

They departed Trinity for H-44 around 1720, did a recon both high and low (pilot used a checklist to evaluate suitability of helispot). They did a power check and noted the OAT which was 28. They proceeded on to H-36, landing at 1735. They checked the clearance between the ground and water tank, and took 3 people off the aircraft, closed it up giving the pilot a thumbs up signal. They gave a wind report and the 766 departed H-36 for H-44. They came back with 10, dropped and returned to H-44. Next landing Roark said he was low on fuel and returned to Trinity to refuel.

Roark gave the impression there was some time crunch. Josiah told him to do what was comfortable and they would do what it took to get the job done. He later heard from Matt Vassel about the crash.

After the crash he tried to get the names of people they had at the H-36 spot for accountability. H-36 was selected because it was close and was connected by road allowing for easier transport logistics.

His observations of crew interaction was that they were "great".

Comments on the inspector pilot – Instead of a check ride, they just incorporated Jim into the mission as in-flight helicopter manager.

The pilot duty day started at 0800.

Interview with Tim O'Brian, Technician, Carson Helicopter Services, Inc.
(Notes from Jim Morrison, ASI, USFS)

Date: 8-07-2008

Present at Interview: Jim Morrison, USFS; USFS, Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher; Elliott Simpson, NTSB

Tim O'Brian, Technician:

- I'm the 766 mechanic, alternate crew chief
- Second tour here
- Nothing unusual about the aircraft
- Bill, the copilot, worked with him before, good pilot, very observant
- I observed that morning:
 - Hobbs time
 - Everything was good on the aircraft
 - She was flying great
- I looked at the head on shutdown
- A lot of ash on the blades and windshield
- No pressure, there was a little to get people off the hill, departed at 1922
- The would call deck if there were any issues
- Aircraft is based at Trinity
- Worked at Carson for 3 years, one big family

.....End of Interview.....

Memorandum of Interview: 7 August, 2008

Interviewers: Zoe Keliher, Gary Morgan

Person Interviewed: Tim Obrien Crew Chief, Carson Helicopters

Tim Obrien was crew chief of Tanker 766, associated with crew for several months. Considered the helicopter a “nice machine”.

He did not know the pilot well. He had worked a lot with Bill Coulter, felt he was a good pilot and very observant.

When he asked the pilots about the aircraft during the last refueling stop they told him it was flying great.

He looked at the rotor head during the refueling stop and noted lots of ash on the blades and windows.

He did not feel there was any pressure, but they were in a hurry to get the people off the hill before it got dark. 1830 was their shutdown time.

506 crew was managing the helispot.

Company culture – great, he has been there 3 years and they are a great company, family oriented. He saw no indications of skimpy maintenance.

The aircraft departed the fuel site at 1922.

They fueled at Trinity helibases. Coultas filled the mains and had 100 lbs in the center tank. Total fuel was 2400 lbs in the main tanks and 100 lbs center tank totaling 2500 lbs.

Standard load for transporting people was 2400 in the mains plus 200 center tank.

Rork sat in the left seat, Bill Coultas in the right, aircraft has STC for pic to be in the left seat.

Aircraft had engine wash every 25 hrs. Last wash was 16 hours ago. Engine power check was performed the previous day, results were +6 and +3. There were no recent maintenance issues. They had changed the transmission main gear box before he came on shift. The transmission had 25 – 26 hrs on it. It had one re-torque on the pressure plate at 175 inch pounds.

The aircraft did a 2 hr cycle of water drops, then it did a 135 check ride. There were 2 loads to H-36 then the aircraft refueled and left.



RECORD OF CONVERSATION

Elliott Simpson – NTSB, Air Safety Investigator
Zoë Keliher - NTSB, Air Safety Investigator
Jim Morrison – USFS
Gary Morgan - USFS
Sean Moretz – Carson Helicopters Services, Inc.

Persons Contacted: Timothy O'Brien
Phone: -----
Date: 7-7-08
Subject: LAX08PA259 ; Sikorsky S61N, N612AZ, Weaverville, CA

The following is a summary of a conversation with Timothy O'Brien:

Timothy O'Brien is a maintenance crew chief for Carson Helicopter Services, Inc. He was assigned to work with N612AZ two months prior to the accident.

On the day of the accident he was at Trinity base, towards the end of the day he observed the helicopter being serviced with fuel. He went inside the helicopter and confirmed by looking at the fuel gauges that the forward and aft tanks were topped off, and contained 1200 lbs of fuel respectively. He observed the center tank to contain 100 lbs of fuel.

Mr. O'Brien spoke to pilot during the fueling operation and asked if there were any problems with the helicopter, the pilot stated, 'she is flying great!'

The pilot asked them him to 'close it up so we can go.' Mr. O'Brien was aware that the pilots needed to get back to the mountain to remove the remaining fire crew. Mr. O'Brien climbed onto the roof and observed ash over the leading edge of the main rotor blades and the top of the windshield. He began to wipe off the ash when the flight crew requested he finish. At 1922 the helicopter was ready, and it departed.

Mr. O'Brien observed Roark Schwanenberg in the left seat and William Coultas in the right seat as the helicopter departed.

Mr. O'Brien described the corporate culture at Carson Helicopters as 'great', he stated he was fairly new to the company but stated that Carson is family oriented, and that they take care of their pilots. He stated that Carson helicopters does not, 'skimp' on maintenance.

He further stated that the engine wash for the helicopter occurs every 25 hours and that they had been washed 16 hours prior to the refueling stop. He reported that the gearbox was changed 25 hours prior to the accident, and that a few days prior to the accident he re-torqued the main rotor pressure plate.

Interview with Terry Nichelson, Squad Boss, Ferguson Management South
(Notes from Jim Morrison, ASI, USFS)

Date: 8-08-2008

Present at Interview: Jim Morrison, USFS; Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB

Terry Nichelson, Squad Boss,-----

- 3rd load
- Greyback 2nd load
- Lightning storm
- Get runs for both crews, Greybeck and Ferguson
- Engine sounded like it didn't have enough umph to get over the trees
- 20 seconds later it exploded
- A lot of people hit the deck
- Got back on our feet
- Heard all the screaming for ten seconds, then explosion
- Pilot 100 foot in front of the ship
 - Turn-outs by his ankles
 - EMT with him
 - Third person came over to assist
- Got my crew together
- 200 yards east of me another survivor
 - Gurnyed him up
 - Put him on the helicopter
- After survivors away did a small grid, then a large grid, about 1,000 yards up to about midnight
- All sat down in the black, hoping to hear cry for help
- Everyone on the helibase did a outstanding job in a horrible situation
- Not sure how pilot got out
- All happened in 15 minutes
- 20-30 seconds from trees to explosions
- Sounded like too much weight, whoop, whoop, going towards trees
- Tail rotor into tree and separated
- Went up than turned right
- Up 25 feet
- As turning, going towards tree, than stopped, and went right, straight down after impact with trees
- Greybecks loaded east from the ship
- Have not flown in this ship
- Witnessed the other two lift-offs
- Pilot, didn't hear anything from him
- Another kid, 200 yards east with blood curdling screams, saying am I going to die
- 2 explosions, 4-5 minutes apart
- Rotor stayed in the tree

Interview with Terry Nichelson, Squad Boss, Ferguson Management South
(Notes from Jim Morrison, ASI, USFS)

Date: 8-08-2008

Present at Interview: Jim Morrison, USFS; Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB

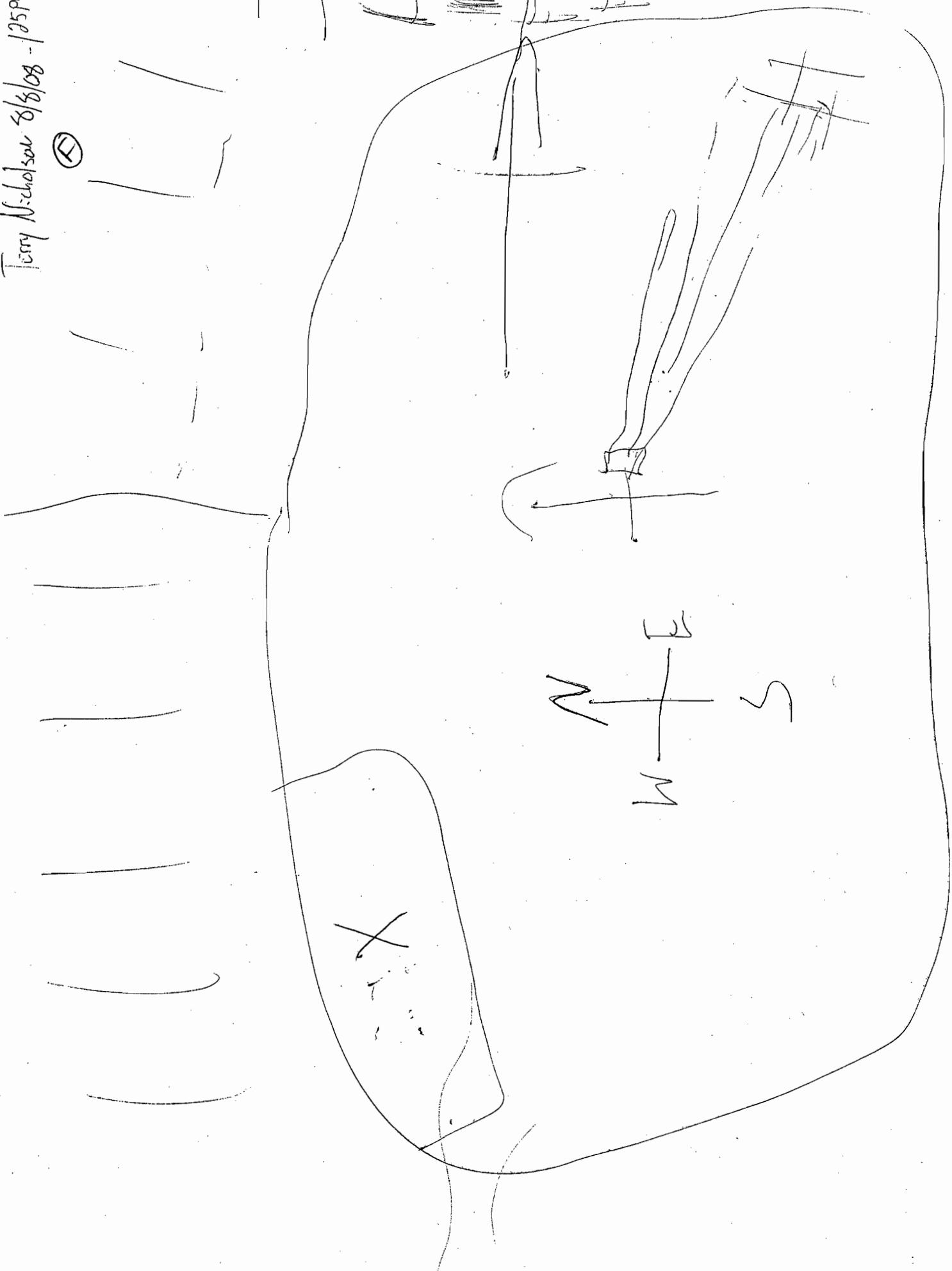
Terry Nichelson, Squad Boss, -----

- Watched the entire takeoff
- I was wearing sunglasses and earplugs
- Same sound from takeoff to forward
- Pilot was first
- 200 yards east was another victom, I got on the radio, help this guy out, he said cold and tired
- I did not see anyone leave the ship

.....End of Interview.....

Terry Nicholson 8/8/08 - 125pm

Ⓚ



Ferguson Firefighter /Squad Boss

- On Heli-Spot H-44 to be transported to Willow Creek Heli-Base. To be on the fourth load.
- Getting off the Hill because of approaching lightning.
- On the take off of the accident flight engine sounded like it didn't have enough umph...
- Said A/C was facing north, picked up and did a right hand 90degree pedal turn and that after the pedal turn it hesitated. It then climbed vertically to around 25' AGL and he said he heard what sounded like a lower RPM sound.
- Terry was wearing earplugs and glasses.
- Claimed accident occurred 20 seconds after takeoff.
- Claimed that he saw the Tail Rotor of the A/C hit a tree, the tail section then separated from the rest of the fuselage.
- Heard Screams coming from the A/C wreckage.
- Also made an observation of two set of explosions after the initial accident, being 4-5 minutes between explosions.
- Saw Bill Coultas (Co-Pilot) 100' in front of the A/C. Terry grabbed water bottles and poured them on his arms because of the burns
- Terry then assisted loading the survivors on the Medivac A/C.
- He then formed a grid to search for survivors, and stopped around Midnight. Then attempted to stay silent to see if he could hear anything

Tim Moon Interview

8/14/08

Present: Zoe Keliher, Chuck Taylor, John Harris, Tim Moon

Zoe made her introduction to Tim Moon.

Tim stated he and his partner Gary Burns oversees 29 operators for 133,137, and 135 ops. And about 2/3 to ¾ operators are 135 based on the USFS operations.

Tim asked Zoe who on the investigation team is a Helicopter specialist. Zoe stated that everyone on the team has different types of backgrounds.

Tim's biggest operator is Erickson, then Columbia helicopters and Carson would be between number 3 or 4.

Tim stated all his operators are very good, and Carson has good records, and flight following locating procedures.

Tim couldn't remember ever flying with the Pilot Roark Schanenberg. But has flown a lot with the other pilot Bill Coultas. Tim said Bill's flying skills were average.

Tim's last base inspection performed for Carson was within the last 6 months. And he has been to Carson's Perkasi base about a half dozen times.

Tim's background (Tim stated he didn't like talking about himself):

50 years flying, started back in 1958

He was civilian and then went into the Army

Flew both fixed and rotor wings type aircraft

He has external load and part 135 experience

In 1964 he went into the army as a warrant officer

He did 2 tours in Vietnam

He has a lot of heavy helicopter time,

He has approx 14,000 hrs

In 1998 he was SK-61 qualified

Has about 3000 hrs in Sk-61 and 4000 hrs in SK-64

When asked why he joined the FAA, Tim stated that his mentor told him that he should

When asked how he felt about the FSDO, Tim stated that he was in the field a lot, and has a lot of work to do. He is bogged down with too much admin computer work, he said that he and Gary both were overworked. About 50% of his work is dedicated to paperwork.

He also stated that he talks a lot with Chuck Taylor and Kim Reed with the Forest Service.

Narrative: Establishment of the Willow Helibase – 2008 Wildfires

Initial lightning occurrence over the Northern California area in 2008 took place on the evening of June 20th. By the afternoon of June 21st it was determined that there were in excess of; 50 fires on the Six Rivers National Forest, 70 fires on the Shasta Trinity National Forest, 20 fires on the Klamath National Forest and 30 fires on the Mendocino National Forest, all within the Northern Province.

By June 22nd the Shasta Trinity (SHF) had established the Iron and Lime Complexes and by June 24th the Six Rivers (SRF) had established the Mad, Hell's Half and Ukonom Complexes. The Willow Helibase was initially established on the evening of June 24th. The intent was to support the Ukonom and Hell's Half fires on the SRF.





The Willow Helibase is located directly across HWY 96 from the Lower Trinity Ranger District office in Willow Creek, CA. The land itself consists of an inactive old airstrip which is located 40% on F.S. land and 60% on private land owned by the Mercer-Frazier Construction Company. The Southwestern portion of the privately owned land is occupied by a gravel pit operation which encroaches onto F.S. lands and is under a special use permit. The Northwestern portion is occupied by a series of vineyards. The eastern portion consists of the Trinity River and the southern portion is a F.S. river access day use area. The F.S. use of the privately owned portion of land for the Helibase operation is covered under a land use agreement with the Mercer-Frazier Co. at a rate of \$800.00 per day.

Because the Willow Helibase is located near the western most edge of the Northern California fire complexes, the visibility due to smoke conditions is and has been comparatively better than other locations located further interior of Northern California. It was for this reason that the Iron and Lime Complexes requested the ability to utilize the Willow Helibase to operate a portion of their assigned helicopters out of. This "sharing" of the Helibase between incidents began to take place on June 28th. The helibase management was initially staffed by the Hell's Half Complex (Northern Rockies IMT2 – Steve Chrisman – AOBD) and land use agreement costs were absorbed by the Hell's Half Complex.

This type 1 operational helibase saw use for up to 8 helicopters at any one given time. On July 12th command of the Hell's Half fire was transitioned to the Southern Area IMT1 (Bob Yeager – AOBD) and later on July 25th to So. California IMT2 – Joseph. On July 27th the helibase was transitioned entirely over to the Lime Complex as the Hell's Half fire had achieved 100% containment on the 28th.

The SRF continued to base a Forest initial attack helicopter (H- 7HE) with rappel module at Willow from July 29th up to the accident date on August 5th. This aircraft and crew was made available to the Iron Complex for missions upon approval from the Forest. This aircraft and module was used in the rescue effort.

Mike Minton, Deputy Forest FMO & FAO
Six Rivers National Forest - (-----)

08/08/2008 Terry Meredith    

Ferguson Employee/Squad Boss

- At Heli-Spot H-44 to be transported to Willow Creek Heli-Base.
- During accident flight was not looking directly at A/C during initial takeoff.
- Stated that he heard some sort of scraping sound coming from the engines on takeoff.
- Surprised that A/C continued to depart because of the sound.
- After Accident he ran down the hill toward the wreckage. He did not approach the A/C fearful that it might explode.
- Observed tow survivors and yelled at them to get away from the A/C.
- Once the survivors were farther away from the A/C he helped escort them farther away from the wreckage.
- Terry had minimal time around the S-61
- Claimed that the environment seemed rushed because of the amount of loads to be made and pumpkin time

Interview with Terrence Meredith, Squad Boss, Ferguson Management South
(Notes from Jim Morrison, ASI, USFS)

Date: 8-08-2008

Present at Interview: Jim Morrison, USFS; Shawn Moretz, Carson Helicopters Services Inc.; Elliott Simpson, NTSB

Terrence Meredith, Squad Boss, -----

- Greybeck, half crew left
- Aircraft had to go long way to fuel
- Came back to load rest of Greybeck
- About a half hour
- Everything was fine
- Packs were lined up
- Heard it power up and lifting
- Heard breaking sound from engine
- Usually go up and take off
- Got over first trees
- Shot over trees than quiet
- Than saw pieces of wood flying
- No, that didn't happen
- Started walking than running
- Got to the ridge right with the helitack and left with them
- Didn't notice the two guys
- Didn't want to get too close
- Guy, yelling at him to get up and after about 10 feet I also assisted getting him out, about 50 feet away from the aircraft
- The thing engulfed so fast, I felt helpless
- Josh Lee and I started flagging the area
- After flagging we started small gridding
- Than started large grid
- There was a keeshhhh, high pitch noise, not a ruurrrrrhhh
- Something with that motor
- Nothing to do with that pilot
- I heard the sound when he was going up and forward
- All pushing because it was getting late
- I stood in the same spot for all of the take offs, was on the left side of the ship, door was on the other side
- Management wanted us off the hill because predicted dry lightning
- Kinda perturbed because they wouldn't get our bags till the next day
- On take off, no smoke, just the sound, flown on a 61 before

.....End of Interview.....

MEMORANDUM OF INTERVIEW
WITH DAN MCGRATH AND LEN CANNELLA
AIRCRAFT BASE RADIO OPERATORS
WILLOW CREEK HELIBASE
IN REFERENCE TO THE N619AZ ACCIDENT
OF AUGUST 5, 2008

AUGUST 9, 2008
WILLOW CREEK HELIBASE
WILLOW CREEK, CALIFORNIA

PRESENT: Dan McGrath, Len Cannella, and Dave Glose (FS)

THE FOLLOWING ARE POINTS AND COMMENTS MADE BY ONE OR BOTH INTERVIEWEES.

Both Dan and Len had worked in the communications trailer in the days before the accident and on the day and time of the accident at H-44.

The command frequency had poor coverage in some areas and was also congested with heavy radio traffic.

H-44 had been reported as having poor coverage by the command frequency.

The radio techs had worked on resolving the radio/frequency coverage problems with little success.

The command frequency was monitored at all times in the communications trailer. Some calls, however, have been missed on command.

At the time of the accident, a partial transmission was heard from H-44. Were aware immediately of the aircraft accident and which aircraft was involved.

Ty Miller, Helibase Manager, immediately began coordinating response with the helicopters from Willow Cr. Helibase. The time frame from the point of notification of the accident to the departure of the first responding helicopter *felt* rapid.

The first aircraft on accident scene was N420RL.

H-44, after the accident, reported/discussed details of injuries and needs with the communication unit and medical unit at the incident command post (ICP).

Prior to the accident, flight following with tanker 766 was conducted by the Helicopter Coordinator (HLCO). No transmissions were made between helibase and tanker 766.

Between 2130 and 2200, H-44 reported to Air Attack, who then reported to Helibase, that 13 persons were on board the helicopter at the time of the accident.

Air Attack remained over H-44 until approximately 2300. In the three hours that Air Attack was on scene, he worked on getting and relaying information to ICP.

Air Attack was generally chatty but was especially pumped-up during time of his arrival.

Some helicopters may have landed at the helibase after the end of civil twilight.

Both felt the Medivac response from helibase was quick and efficient.

Air Ops Branch Director and Air Support Group Supervisor periodically visited the helibase.

SAFECOMS have periodically been filed for issues on the incident or the helibase.

Drills have been conducted with the Crash Rescue Crew and vehicle.

Helibase had experienced sudden wind changes during the course of the day on August 5th.

USFS Employee

- Operated around Sikorsky S-61 for around one month.
- Departed in A/C from Shasta Trinity Heli-Base with Pilot, Co-Pilot, Jim Ramage & additional USFS employee's. The mission of the flight was to drop of employees @ Heli-Spot H-36.
- While en-route to H-36 the pilots conducted a power check. Matt had no comm. But stated that he saw multiple thumbs up to insinuate that the power check was satisfactory.
- After that A/C repositioned to Heli-spot H-44 to begin troop shuttles from H-44 to Willow Creek Heli-Base.
- On initial approach to H-44 the A/C caused a significant brown out due to rotor downwash. Tanker 766 then executed a go-around & orbited the area till the dust was clear. Tanker 766 then made a successful landing at a different location which resulted in minimal debris in the air during final approach.
- Tanker 766 did two successful troop shuttles from H-44 to Willow Creek Heli-Base. After dropping off the second load Matt was notified via radio that Tanker 766 would be transitioning to Shasta Trinity Heli-Base for refueling so they would be able to finish the shuttles.
- On the third troop shuttle (accident) Tanker 766 was loaded with 10 passengers (pax), additionally onboard the A/C was Mr. Ramage, Mr. Coultas & Mr. Schwanenberg. Gear was also loaded in the cargo box towards the rear of the A/C & tools were loaded in the cargo bin located underneath the floor. Haz Mat was also aboard the A/C. the pilots were notified and it was also indicated on the load manifest.
- Matt claims the next three loads were to be 10 pax each.
- Matt also mentions that the beginning of the mission was extended because of the fact that Jim Ramage was attempting to conduct a passenger carrying check ride with Roark Schwanenberg (The command pilot). Additionally he said the entire mission was time sensitive because it was becoming dark soon. It was a priority to get the passengers off of H-44 and the rest of the cargo would possibly be taken out either that evening or the following morning by Helicopter long line.
- Matt observed the take off of the A/C. Claims that is was different & slow. The A/C climbed vertically to around 30'-50'. The aircraft proceeded forward in a level attitude
- At that point he said a tree came in contact with the A/C on the bottom side of the A/C frame. The A/C made it past that tree and then continued down the slope. He could then hear the blades hitting the trees that were down slope. He also made claims of

hearing an increase in engine noise after the tree strike, followed by a series of three “pop’s” & then smoke coming from the fuselage of the A/C.

- Matt went down to the A/C and did come in contact with at least one of the survivors (Bill Coultas). When asked if Bill said anything Matt claimed that Bill asked for his wallet, his cell phone, and the whereabouts of Roark Schwanenberg.
- He then went back up to the initial heli-spot to attempt to establish communications; Matt attempted to make a radio call to Air attack to notify of the incident. He finally reached them on 121.50 (Victor Frequency). Some of the communications that he had with Air Attack involved the coordination of water drops on the wreckage, and attempts to inventory survivors. There was also some sort of inquiry by air attack of any possible fatalities. This resulted in no firm conformation that anyone had perished in the wreckage.
- Matt was asked by the NTSB investigators why he didn’t give any clarification of the possibility of there being any fatalities at H-44. He claimed the reason was because of the fact that there were probably other people than the USFS monitoring these radio frequencies.

Interview with Matt Leigenfelter Helicopter Manager, USFS

Date: 8-07-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS, Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB; Elliott Simpson, NTSB

Manager Matt Leigenfelter -----

- Starter day with morning planning and PT
- Went over rappel procedures for the 61, and did moc-ups
- In the afternoon, heard maybe a troop transport for two crews
- After lunch we got the call
- Ended the launch mission from 1600 to 1700 hrs
- Supervisor Manager and myself planned what was to go on and who was doing what, hazmat, Q.C., etc...
- We did a high than a low recon of H44
- Did not have commo inside, wasn't plugged in, didn't hear what the pilots were saying
- Before the flight, the plan changed, regional check pilot was coming up to the base and was going to sit in the manager seat
- There was a high to low recon, I saw all thumbs-up
- Flew to H36, over flew, maybe GPS issue, did huge right turn and came back to H36, did a high to low recon
- Landed at H36
- Got tools out
- Let someone off
- I went back on board aircraft
- Lifted off H36 to H44
- I now had commo, I moved to the manager's seat
- The dust was fine, so fine, it was hard to see, ground asked us to lift off and shift right, east, where it was less dusty
- So we lifted off and did a big turn and set down, not near as dusty
- I got out and checked clearance with tank, gave Bill a thumbs up
- Put people on left side, not a real good site, out about 45 degrees
- Jim Ramage assisted
- Met with Ult and they manifested both crews, he said that they were in 10s
- We gave names
- My folks unloaded the gear, and gave us a brief to the first crew, how to load, seat belts
- After loaded up, Jim shut the door
- I spoke with Rork and let him know where the hazmat was and he said ok
- Also briefed Rork that we would reposition crews so pilot could see them
- Got loads two and three together and moved to the other side
- Turn time was pretty quick
- Second load, loaded crew, same procedures, and hazmat, and assisted Jim with the seat belts
- Cargo person briefed on hazmat

Interview with Matt Leigenfelter Helicopter Manager, USFS

Date: 8-07-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS, Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB; Elliott Simpson, NTSB

Manager Matt Leigenfelter -----

- Lifted off H44, have to also go to THP to take on more fuel, told pilot, that's great
- 1 ½ time left, pilot said he would be back in a ½ hour.
- I got 3rd load ready
- Told Vassle and Peters to long-line their gear out, Matt made the call
- I had my group start manifesting bags and load into 4 nets, though maybe it could be picked up the next morning
- After that was finished I just got ready for 766 to come back
- We were all ready
- Same protocol, got the 10 in, all buckled, Jessica came out
- Made contact wit Rork and told him about hazmat and he said good
- 766, ready to go
- When it came up, slower to come up than before, I didn't think much about it
- Going towards east, different pattern, 30 to 40 feet up through somewhat an opening
- He's going to make it, he's going to make it over initial tree line, top of tree went under the belly
- Main rotor topped the tree
- Main rotor cut more trees
- Came onto left side
- Many started to run towards the aircraft
- Turbines were winding up, three pops, 2 rapid, time delay, 3rd one than smoke from the aircraft
- Hollered at my people
- Vassle called 761 than 766 crashed in an accident
- My crew started assisting
- Saw some that had crawled out of the aircraft
- Everyone was yelling at guy to move away from the aircraft
- Called for Reed ship, medivac
- Be there in about 10-15 minutes
- Asked crewmembers for medical supplies, 3 medium, 10 man kits and stokes litters
- Selected site for medical
- A-Star came in with paramedic
- They assisted with packaging people
- I prioritized who was going out
- Bill had burned hands and chest, first one out
- Airattack asked where to go, I suggested Davis burn center
- I worked on the other three injured critically
- 2 got out on the A-Star

Interview with Matt Leigenfelter Helicopter Manager, USFS

Date: 8-07-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS, Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB; Elliott Simpson, NTSB

Manager Matt Leigenfelter -----

- Las got on KA
- People disconnected, got into groups
- I had to get people back together
- Spoke with airattack
- Came up with plan and spoke wit everyone
- Hard time getting a hold of helco and airattack, went to air guard and spoke with Airattack
- Collected information and where they were from
- Had everyone write down what they were doing at the time of the accident
- Two crew members flagged around the aircraft
- They also flagged stuff around the perimeter
- Tried to get commo and communications with Junction City
- Coordinated finally with airattack
- 26 people accounted for on H44
- 9 people not accounted for
- Couldn't get close enough to the helicopter because of the heat
- Airattack stayed on incident
- Spoke with leadership, not going to fly, other helispot 2 miles away at 43, what we planned
- 2 left there, one from PV, came in with 5KA and One from A-Star
- Next morning, many still hesitant 10 minute flight, told them like hitting the lottery
- Got to 43, spoke with airattack, and told him all landed at 43
- Got on 212 and went up to Weaverville
- Spoke with behavior group
- Helco came over and asked for two buckets of water
- Aircraft had 4 point seat belt
- Jessica gave safety brief
- Usually have crewmember in seat 1 and 10
- Changed for plan, Ramage in seat 1
- I would have normally been in seat 1
- Bill asked for wallet, cell phone and how Rork was
- Grids were going on, did good perimeter grid
- Matt Vassel has all of the statements
- The helicopter went up than flat, than slight nose down
- With Jim on board, there was more touching of the panel and the switches
- 2 more loads
 - One hand crew, another 20 people
 - Myself, task force leader and various others

Interview with Matt Leigenfelter Helicopter Manager, USFS

Date: 8-07-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS, Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB; Elliott Simpson, NTSB

Manager Matt Leigenfelter -----

- Talked about getting another medium after 2nd load, they said they couldn't make it happen
- There was a lot of traffic
 - Very ----- on Air Tac
 - 1-4, 9, 10, & 11
- 11 was closest repeater
- Did not know why Jim was on board, except Jim was on board for check ride, wasn't normal SOP

.....End of Interview.....



RECORD OF CONVERSATION

Elliott Simpson – NTSB, Air Safety Investigator

Persons Contacted: Aaron Lighter

Phone: 530 514 0747

Date: 8/13/2008

Time: 1700

Subject: LAX08PA259 ; Sikorsky S61N, N612AZ, Weaverville, CA

The following is a summary of conversation with Aaron Lighter:

Mr. Miller has been a pilot with Carson Helicopter Services for 5 years. He currently flies the S-61. He has flown as the pilot in the accident helicopter for a total of 34.8 total flight hours. These flights took place during June 2008 for firefighting missions in Florida. During those missions he stated that the fuel control for one engine needed to be replaced, and that he performed a flight test after the repair was completed. He observed no anomalies with the fuel control on this, and subsequent flights.

He stated that he has flown with Mr. Coultas before, and that he was an outstanding and methodical pilot. He further stated that most S-61 helicopters he had flown on had a custom collective restraint device similar to a bungee cord. He could not recall if the accident helicopter had a bungee device installed.

Witness Statement

Brad Koeckeritz, Helicopter Crew Supervisor N7HE
Bridger-Teton National Forest

Our crew was ordered to the Six Rivers N.F. (order #CA-SRF-001036) to assist with initial attack on 08/26/2008. We departed Jackson, WY on the morning of 8/26 and flew to Mad River, CA. Our support vehicles married up with us in Mad River on 08/27/2008. On 08/28/2008 we were re-positioned from Mad River to the Willow Creek helibase. We were not assigned to the Iron Complex but were doing some missions for them with permission of the Six Rivers N.F. From 7/28-8/05 we worked out of the Willow Creek helibase performing missions for both the Iron Complex and the Six Rivers N.F. Most of our missions were recons, however, we did take part in crew shuttles including moving the Grayback Crew from H30 to H44 on 08/02. We attended all of the daily briefings and debriefings at the helibase.

Events on the Day of the Accident

Morning briefing was held around 0745 in the morning. Mission for the day were discussed which included shuttling 3 crews off of the line two of which were to come off of H44. After the briefing the Helicopter Managers gathered to discuss how to best handle the shuttle. At that time there was discussion about the wisdom of flying that many people off the hill because of predicted lightning. It was determined that helitack would be flown out to H44 and H61 in the afternoon to prepare the crews for transport and the S-61's would be used to move the crews. Ulf Peters one of our crewmembers was one of the helitack to be put on H44. Our crew ran the cargo operation for the helibase on 8/5 and utilized 7HE to fly out 3 loads to the line and retrieve backhaul from various helispots. At 1530 7HE was launched to deliver helitack to H44 to assist with the crew shuttle. Once that mission was completed we did not fly any more missions until responding to the accident.

Around 1940 I was alerted by my fuel truck driver that she overheard there was an aircraft down somewhere on the fire. I immediately went to the commo trailer and confirmed that it was a S61. The Price Valley Helitack crew was already assembling their medical personnel and on the way out to their pad. I had 2 EMT's on my crew and had them load the ship with our medical gear and our stretcher. 5KA (Price Valley) launched within 10 min. and we launched 7HE a couple of minutes after that with medical personnel. N420RL was already in the air and was the first aircraft on scene. RL started relayed that they could see multiple injured personnel and that the aircraft was on fire. Shortly after 7HE left Willow Creek, Ty Miller the HEB1, said that he was going to launch in 2JG to assist since he is a Paramedic. I volunteered to take over as the qualified HEB1 working with Jason Petruska as the HEB1(t). From the time that I entered the communications trailer around 1940 until 1130 when I left, the ABRO's kept good notes and their timeline should be accurate. An ATGS platform was launched and arrived on scene, I believe, around 2030 but I'm not sure of that time. When the ATGS arrived on scene he immediately began getting a role call of the helicopters and figuring

out where they were. At this point there was a lot of traffic on the air-to-air frequency and it was difficult for the pilots to communicate with each other.

It was made clear to us by RL that there were four injured people that needed to be transported to the hospital and that 2 were critically injured. Beyond that we had a difficult time determining whether there were other casualties for several hours and did not get confirmation until around 11 that there were indeed 9 missing. Once the medics on scene packaged the patients, they were transported. 5KA transported 2 to Weaverville, CA and passed them to a National Guard helicopter due to the fact that they didn't have enough fuel to make it to Redding. 7HE transported one to Redding. Reach Lifeflight transported one.

Personal Observations and Opinions.

- Air-to-ground communications had been an ongoing problem on this fire due to the fact that both the receive and transmit freq's had a tone guard. This was a problem during the post accident response.
- At no time did I witness the Helibase Manager nor the trainee use the daily briefing/debriefing checklist as required by the IHOG.
- In the 8 days we were on the base there was never a crash rescue drill.
- There seemed to be a heavy reliance on aircraft to shuttle crews on an off the line. Many of these flights took place on a daily basis or every 2-3 days. It did not seem that crews were staying very long at any of the spike camps.
- Many of the managers questioned the risk management of flying all the crews off in advance of the predicted lightning. It was our belief that flying posed a more serious risk. These concerns were voiced to the Helibase Manager.
- None of the helispots that went to were numbered on the ground and they did not have crash rescue kits or extinguishers.
- On 8/03 I mentioned to the HEB1(t) that the trees on the east side of H44 should be cut back further if it was going to be used repeatedly for crew shuttles. I do not believe that H44 met established standards for approach and departure.
- The response from the helibase was fast and a lot of medical personnel got on the ground quickly.
- VHF communications were good with the exception of heavy traffic at times.
- The command frequencies were not very effective and it was hard to gather information over command.
- Only one time did I see the ASGS or AOBD attend briefings at the Willow Creek helibase.
- The communications unit was desperately trying to get info from H44 during the event. They're constant traffic on command did not expedite the recovery of the injured personnel.
- I think that Lifeflight helicopters could have been ordered a little faster than they were. It was unclear who had the responsibility for making that call.

I hope this statement helps with the investigation and would be happy to talk to anyone who would like further information from me.

/s/ Brad Koeckeritz

Interview with Ryan Kiser
(Notes from Jim Morrison, ASI, USFS)

Date of Interview: 8-07-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS, Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher

Ryan Kiser EMT

- Flown in about 2000 to H44, arrived about 20 min. after the accident
- 2 Patients were attended to: John and Richard, they were back-boarded and flown out on 5KA
- Make sure everyone was accounted for on the hill
- Everyone did a letter of sequence of events
- Furgusan crew did a search
- The helo was burning, many different colors, helo pretty consumed
- Went to bed at 2300, up at 0530
- Did some sling loads
- Did not know how many were on board
- After we landed at the site then we were briefed there were others on board
- The perimeter was being searched, about 500 yards
- 3 patients were on the pad when we arrived

.....End of Interview.....

JESSICA HUNTOON - SHF FLY CREW 506

Crews

~~my~~ original assignment was troop shuttle.

We flew into helispot 44 on ^{our} helicopter

766 and was tasked with passenger loading

my crewmembers were Chauncy Ross, Alex Rhea,

Brian Buchner, and Matt Lingenfeiter was our crew

boss. We loaded and flew out 2 loads. 766 went

back to refuel and returned. We loaded the 3rd load

on board a total of 13 I believe was on board.

We loaded the crew I checked all seatbelts as did

Ramage who was on board helping with passenger

loading he gave me the thumbs up and I exited

the aircraft last. Chauncy Ross was waiting outside

the door he shut the door and we cleared

away from the aircraft giving a thumbs up to

the pilots to let them know everything was good.

We cleared away and 766 started to lift I think

it was around 1930. The helicopter wasn't lifting

like usual! ^{didn't sound like it was full power} It started to drift in our direction

our crew was the only ones standing at about
the helicopters 2 o'clock. 766 drifted in our
direction ~~the entire~~ Matt, Chauncey, Brian, ~~and~~ Alex, and
I started moving back I still kept looking at ~~the~~ 766
they aircraft then moved back away from us ^{still} not
getting proper lift I then saw a rotor strike and
~~the~~ debris started flying and my crew started running
away from the aircraft. Debris was flying in all directions
After debris stopped the 506 crew just started heading
down toward 766 we saw a fire someone yelled
for a fire extinguisher. ~~I~~ heard another crew yell there
were people injured near the aircraft. I was just
wondering looking for injured and seeing who needed help.
I then got called back to the other side of the aircraft
which was the south side of the helicopter. I ran over
to one injured person who ran from the aircraft there were
already two people taking care of him Matt Vassel told me he
saw another person running down the hill I saw him and ran to
him it was our pilot Bill. I stayed with him until we were able
to bandage him up and put him on a stretcher and load him on
the helicopter. After I just helped wherever needed loading injured
and assisting medics.

Memorandum of Interview:

Interviewed: Jessica Huntoon Date: August 8, 2008,
Interviewers: Gary Morgan, Zoe Keliher

Jessica Huntoon developed the helicopter manifest and loaded the passengers.

After the second shuttle the aircraft fueled at trinity helibases and returned 45 minutes later. Troops were ready to load. Pilot gave a thumbs up and Jessica walked them in. She helped with the seatbelts and the other FS employee on board helped with belts. Other employees loaded cargo.

She checked the last 3 rows and gave a thumbs up to the forest service employee sitting in the front. All clear, exited aircraft and it lifted.

There was not enough lift, something was “not right”.
He turned and came towards us then went back the other way.
She saw a rotor strike and things started flying. We ran in opposite direction. More rotor strikes and he went down.
We ran back in and noticed it was on fire. We called for extinguishers (there were 5 employees standing at the side of the aircraft facing the door when it departed).
The aircraft rolled over to the rotor side.

2 people came out, heard someone yell that more people were coming out the other side. One was sprinting and a guy chased them down. She stayed with the pilot till they moved him out. He questioned her about what happened, did everyone get out, where was Roark. He did not recall how he got out.

Who sat where? Ramage was in front. (seat number 2) she remembered the guy in seat 9 having trouble with his seatbelt (that’s how she remembered him).

The co-pilot was found layin on the ground about 100 – 150 feet downhill and slightly E S/E of the wreckage. His flight suit was stripped off down to his ankles.

G. Morgan

Jim Morrison's (ASI, USFS) notes of conversation with Mr. Jeffery Hill, Director of Maintenance for Carson Helicopter Services at Perkasi, PA on 12-05-2008:

Mr. Jeff Hill:

- Mr. Hill speaks with west coast operations (Carson Helicopter Services) maybe 5 times a year
- Were a support company (supports the west coast operations)
- There was a split between east and west coast and Mr. Hill did not agree with the split
 - This is the way Frank (Carson) wants it, he's the boss
 - They wouldn't change, but it should be together (east and west coast operations)
- No (work) relationship with Steve Metheny
- Never been to the west coast operations
- I Don't weigh the aircraft
 - I may supervise the weighing
 - I haven't weighed an aircraft in 25 years
- We negotiated with Heli-One and Canadian Helicopters for N612AZ
 - We negotiated with no blades
 - Sent people from west coast operations to perform the pre-buy inspection
 - Dave (Wolf) reviewed the records
- Frank (Carson) likes making the aircraft better than when it was originally designed
- All the aircraft weigh different
- No day to day experience with the west coast
- Bob Boyd is the Chief Pilot with 19,000 hrs in a S-61
- We have an employee meeting every Monday

.....End of notes with Mr. Hill.....

Interview with Ted Hass, ATGS
(Notes from Jim Morrison, ASI, USFS)

Date: 8-11-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS; Zoe Keliher, NTSB

Ted Hass ATGS:

- Arrived on the 1st
- Ordered by Area Command
- North California Team 2
- Asked by Rich Webster to work till Russ Gordon showed up
- Transitioned with Wess Shook
- When he showed up he didn't have an ATGS, so I stayed on to help out
- I ran Air Ops for 2 days, Russ Gordon came on the 3rd
- Jeff became my trainee
- Jeff did the Base briefings at Trinity and Willows after the main brief
- When Russ came on he thought we had a good plan
- We stayed in the ATGS roll
- Dennis showed up on Monday as another ATGS
- We monitored the Air to Air and stayed tied in with Air Ops
- We knew lightning was coming in the day before
 - Predicted at 2200-2400 on Tuesday
- Ops made decision to remove the crews at the top of the hills
- Decision was to pull out on 1600
- Pulled out H41 a ½ helitack crew from Willow, also 10 helitack between Twin and mountain
- Dig line
- Pulled off first shuttle
- At 1800 started at H44 also H61, Carrey Fire Patrick Crew
- At the time of the accident I was at the planning meeting
- Ordered Jolly 91
- If we had an accident we go to the comm. Trailer
- Called Bagwell, airattack, left message at 1915, helco was up over the site coordinating because there was more than one helicopter working
- Called Bagwell and asked him to jump into other airattack aircraft, I needed the airattack up for the commo
- ORL was making coordination with the other helos
- 11M showed up, do you want to drop the water on it?, I'm bingo and someone make a decision
- Lady pilot was doing the coordinating
- Tom took about 15 minutes to get there, about 2000
- Tom was trying to ascertain who was on the ground and when
- 4KA was the first on scene than moved out of the way
- 7HE was next and moved over
- Than Tom came in
- Helibase started sending helos
- 2JG asked to have people clear the air

Interview with Ted Hass, ATGS
(Notes from Jim Morrison, ASI, USFS)

Date: 8-11-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS; Zoe Keliher, NTSB

Ted Hass ATGS:

- Airattack was doing most of the talking
- Got pilot in air within 10 min, Reach 5
- 7HX, Teton had not load
- Just before 2045
- H21 was original plan
- But because of the seriousness of the burns, decided to take right to the hospital
- Jolly 91, go to airport and transfer patients
- After that there was long conversations with ground
 - Too hot, too intense
- No Commo on air command, had to go through airattack
- Mass confusion
- We couldn't tell if aircraft was going through
- We got a list of names within 15-20 minutes
- We asked again, Still too hot
- Started grid
- Read off names
 - Most Furgansan and Helitack
- Finally found out that aircraft was departing
- So we knew it was full load
- About 2245
- We knew by 2300 that we had at least 8 missing
- Did not know about Jim
- Told them to move away from the smoke and we will pick you up in the morning
- Established commo with command
- Made decision not to pull off with Jolly 91
- We borrowed 4KA to help out from line so we could stand down the next day
- Used 4KA that next morning to get the personnel
- Used airattack from Redding
- Medical Unit Leader reported the accident for response
- Joe Mog, is Deputy I.C.
- Helibase was documenting
- It was about 2245 when we got the answer that they were leaving with a load
- We focused on medivac
- Couldn't tell if there was anyone missing- the kid looks around and sees 2 crews there
- He didn't recognize that these extra people came off the rescue helicopter
- We kept asking, anyone on board?
- We can't tell, it's too hot

Interview with Ted Hass, ATGS
(Notes from Jim Morrison, ASI, USFS)

Date: 8-11-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS; Zoe Keliher, NTSB

Ted Hass ATGS:

- Russ was also asking the airattack
- All comms went through the Airattack
- We kept trying the direct, is there anyone on the ship?
- Finally we asked it a different way—Was the aircraft taking off or landing?
- Kept asking if there were any injuries
- Too hot to tell
- Only talking to airattack, no one else
- Once we knew that Ferguson crew was left then we knew Greyback was on board
- Did not know Ramage was on board till next day through Russ
- Didn't think to use Jolly 91 for search because they did a grid
- Russ Gordon left about the 7th
- Tom deserves accolades, ascertained right information

.....End of Interview.....

MEMORANDUM OF INTERVIEW
WITH TED HASS

AIR SUPPORT GROUP SUPERVISOR
IRON COMPLEX
AUGUST 11, 2008
REDDING, CALIFORNIA

IN REFERENCE TO THE N619AZ ACCIDENT
OF AUGUST 5, 2008

PRESENT: Ted Hass (BLM), Zoe Keliher (NTSB), Elliot Simpson (NTSB), Jim Morrison (FS), and Dave Glose (FS)

THE FOLLOWING ARE NOTED POINTS AND COMMENTS MADE BY THE INTERVIEWEE:

Wes Shook was the outgoing Air Ops Branch Director (AOBD). I arrived on August 1st and became the Air Support Group Supervisor working for Russ Gorden when he arrived on August 3rd.

Lightning was predicted for Tuesday night, starting about 2200. Based upon that prediction, Operations made the decision to move people off of the fireline. Helispots 44 and 61 would be used as the locations to pick up the firefighters. Crews working down at lower elevations would remain spiked on the line.

At 1800, the crew shuttle form H-44. Tanker 766 was assigned to move passengers to from H-44 to H-36.

At the time of the accident, I was at a planning meeting. When I heard some radio discussion regarding the accident, I went to the communications unit. I then took a moment to call Tom Bagwell, Air Attack Group Supervisor, and ask him to return to the fire and H-44 - He had just landed at Weaverville Airport. Tom jumped into another airplane and returned to the incident.

Shortly after the accident, helicopter N420RL arrived on scene and began coordinating with people on the ground. Soon after, the Helicopter Coordinator arrived on scene.

At some point during this time frame, helicopter N7011M arrived and asked if it was alright to drop his load of water on the burning wreckage. Someone gave the pilot the go-ahead to drop his load of water. After, N7011M had to leave and return to helibase being low on fuel.

Air Attack arrived on scene at approximately 2000.

The Mercy Lifeflight (Reach) helicopter had in the meantime landed at H-44. That helicopter took the injured pilot, the most severely injured person, and transported him to UC Davis Burn Center. Helicopter N7HE took the next most severely injured person.

Helicopter N215KA transported two injured persons from H-44 to Weaverville Airport and then transferred those two individuals to Jolly 91, the National Guard helicopter.

A California Highway Patrol helicopter had also been ordered but had been released soon after arrival because there were no other injured persons to transport and the helicopter did not have night flying capabilities.

We, AOBD and I, asked the helitack person on H-44 if there were any other persons on the helicopter. The response was that the wreckage was too hot to confirm. We were unable to get an answer to the question we were asking. We then asked for names of everyone at the helispot. At about 2245 we thought to ask whether the helicopter was landing or departing the helispot when the accident occurred. We learned it was departing and knew then that the helicopter was likely full of passengers.

We did not know that Jim Ramage had been on the helicopter until the following morning. Until that point, we thought there were eight persons unaccounted for.

MEMORANDUM OF CONVERSATION
WITH MIKE HANSEN

HELICOPTER MANAGER N7011M
IRON COMPLEX
AUGUST 12, 2008
REDDING, CALIFORNIA

IN REFERENCE TO THE N619AZ ACCIDENT
OF AUGUST 5, 2008

THE FOLLOWING ARE NOTED POINTS AND COMMENTS MADE BY MIKE HANSEN TO DAVE GLOSE AND THEN DATES WERE CORRECTED BASED UPON AFF AND CONVERSATION WITH MIKE HANSEN ON 8/16/08:

On July 30th, I landed on helicopter N7011M at a location that would become helispot 44. I discussed with the pilots, upon landing, their thoughts on necessary improvements to the spot. The pilots flying the helicopter at the time identified one or two trees to the east and northeast of the pad that should be removed. From my position standing outside the aircraft door, plugged into the intercom system, and with the helicopter sitting in a more-or-less east-west orientation, I could not see the trees in the direction of what would become the normal departure path to the south southwest.

On July 31st, N7011M landed at least once to help with the transport of fire crews from what was now H-44. At the time no pad marker or fire extinguisher was at H-44. At the end of the day I told the Willow Cr. Helibase Manager that the spot was "good for an S61". As a note, there were no pad markers at any of the other helispots I had been to or seen from the air. I believe that none of the helispots on the complex of fires had pad markers.

From July 31st thru August 5th, H-44 was used on a regular/daily basis by type I and type III helicopters.

An additional observation: the pilots flying the S61's for passenger transport are not generally accustomed to passenger transport missions. This fact may mean they are not familiar with helispot recommended dimensions and approach and departure path standards.

Additional input from phone conversation on 8/18: The normal departure for N7011M was on a similar direction as 766 but more southerly. The helicopter, when on the ground, was generally aligned facing more-or-less west southwest and then on take-off would do a peddle turn 90° left and depart to the south.

08/05/08

7HE Mgr. David A. Gomez

①

Time Approx.	Event
1940	Heard call over Cmd. net about Helo. crash
1950	Launched w/ 7HE, Gomez + 2 EMTB's For H-44
2000	Contacted H-44 about Landing Area - H-44 replied LZ not clear - SKA was Lifting - I replied 7HE will hold and Land after SKA Lifts
2005	- Landed behind SKA after lifting off - unbaded gear & 2 EMT's exited to provide patient care, Gomez tied in w/ PU Weber to obtain scene information - Weber indicated 4 survivors & no others found @ crash site after a search was done (Weber said photos were taken) - HECM, Matt, from Shasti Trinity and 1 other SHF, HECM seemed to be magnifying the spot & overall scene (Fire from crash and from wildfire were not of concern in terms of rescuer safety or safety of those @ Helispot - Matt & Weber indicated a med ship was inbound

08/05/06

THE Mgr D. Gomez

②

Time Approx

Event

2010

- Gomez talked to pilot about bumping THE Forward & Left to provide more room for Medship - pilot reply was yes & adequate room was created for second ship
- Gomez & Pilot then configured THE w/ litter for patient transport
- when complete Gomez went to Matt & indicated THE ready for transport - Matt confirmed for Gomez - took to Mercy Medical
- 1st patient was carried & loaded in THE, while loading Reach helo. landed - I spoke w/ a senior Paramedic from H-Base about flying w/ patient #1 in THE, he said he would speak w/ Reach folks 1st, Reach Medic came over to THE & decision was made to load #1 in Reach. That was done. *(Peters, Shasta HECMS & Handcrew members assisted)
- Gomez then went to patient care area and asked for patient #2, patient #2 was carried to THE & loaded after Reach ship 2ifted w/ #1, *(Peters, Shasta HECMS & Handcrew members assisted)
- SKA Landed as we transported #2 towards THE, #2 was loaded into THE. *(Same as above assisted)
- Gomez boarded aircraft to secure oxygen bottle for flight, assist w/ flight following, freq. management, patient care & unloading of Patient. (over)

Unsure of time, but aware flight would extend past Pumpkin.

08/05/08

THE Mgr. D. Gomez

(3)

Time Approx.

~~Event~~

Event

?

THE lifted w/ #2 patient, Gomez believes that's when #3 & #4 were loaded on SKA
Contact w/ Air Attack was made - exchange of Mercy Medical Freq's occurred - SKA indicated they were following behind THE
Gomez provided comfort to patient, kept talking to him & assisted pilot w/ see and award & Freq. msgmd.

Heard transmission that SKA was going to Weaverville due to fuel concerns.

THE continued to Mercy, made contact w/ Beach ship that was on the ground & gave Freq's & directions to Mercy Helipad

2120

Contact was made w/ Mercy, THE landed, Gomez unloaded #2 patient w/ Medics @ Helipad

THE w/ Gomez flew to Bedding and ~~landed~~
Landed @ 2130.

Gomez made contact w/ Fortune Dispatch on cell phone to confirm on the ground Bedding & also w/ Brad K. (Teton Crew Sup.) @ Willow Cr. H-Base

AAR Thoughts

- ① Proud of actions taken by Teton/Trinity/PV HECMs & Paramedic Folks of scene mgmt, patient care, also any others involved in personnel carrying
- ② Great effort towards role mgmt & reversal in regards to incident within an incident - patient care
- ③ Small font code & Frequencies for Med center
- ④ Could have been better commo about ^{who was} JIC within ~~the~~ the incident
- ⑤ Comms needs to trust

↓
Safecom on Mediac info

- ⑥ Is Magnesium Toxic
→ CA 112?

Interview of David Gomez, EMT
(Notes, from Jim Morrison, ASI, USFS)

Date: 8-07-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS, Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB.

David Gomez, EMT:

- At 1940 heard the call over command net that there was an accident, launched from helibase at 1950, arrived at helispot at 2000
- Fuel truck driver heard about a aircraft down
- Rick Sorensen said he needed help
- Launched 4KA
- Launched EMTs configured for rappel, then heard base was clear
- Flight followed with box at helibase
- Well within agency limits on time
- Matt at H44, he was H44
- 77HE on hold for KA with 6 people and back boards
- Matt Vessel and Langley were managers at the scene
- Moved the ship so others could land
- Wind at landing, fairly calm, no breeze to cool us down
- Couple miles vis

.....End of Interview.....

Interview with Dennis Brown, Regional Aviation Safety Manager (RASM), USFS
(Notes from Jim Morrison, ASI, USFS)

Date: 8-11-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS; Zoe Keliher, NTSB

Dennis Brown, RASM:

- At 1956 hrs, accident at H44, Buckhorn fire, people outside aircraft with post crash fire
- Next notified:
 - Fire Director, Ed Hollenshead
 - Regional Aviation Officer, Dennis Hulbert
 - Told Ed that this is all we know, were doing a search
- Remoteness
- Radio Traffic
- Rescue
- Fire Traffic
- At 2245 hrs, called FAA center
- Called Aviation Safety Center, first couldn't get a hold of Ron Hanks, I did get Barb Hall, gave her same info
- Barb called Ron, and Ron called me back
- I called the NTSB
- 4 Medivac 7 injured—Not sure how this info got out
 - From Shawn at helibase
- Tom Beddow also called from the area command
- Stayed in touch with Arlen
 - Tell me who was not on board
 - At the time, thought Jim was ok, and gave this to his wife
- At 0145-0200, Arlen called back, something is not right, helibase made head count and had 9 unaccounted for
 - Don't know if their in the aircraft
 - Don't know if their on the perimeter
 - 29 or 26 were at the helispot and Jim was overdue
- I decided to not give more unsure information
- I decided to go to Redding and be with Jim's wife
- Left message with Zoe, about 0700, at that time spoke with Zoe, might have 9 fatalities, need to plan on 9, cannot confirm
- At Redding:
 - Stopped at N Ops
 - Got map to Jim's place
 - Got a call from Jim's wife, someone from industry called Jim's wife and said they were sorry
 - Spent entire day with his wife
 - Still very hard to ascertain
 - Official conformation, not sure
- Didn't call any other family members

Interview with Dennis Brown, Regional Aviation Safety Manager (RASM), USFS
(Notes from Jim Morrison, ASI, USFS)

Date: 8-11-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS; Zoe Keliher, NTSB

Dennis Brown, RASM:

- Generally, I get a call from dispatch if there is an incident
- Not uncommon for Forest ECC dispatch to also call
- Calling process:
 - Regional
 - Fire Director
 - Regional Aviation Officer
 - National
 - Ron Hanks
 - Barb Hall
 - FAA
 - NTSB
- Primary contacts:
 - Shawn
 - Aaron Utterback
 - Tom Beddow
 - Arlen Cravens
 - Getting info from fire team
 - They were giving me names of people it wasn't
- Shawn was getting me information as soon as he can
- Stressed with Shawn that I was RASM and needed to give me info first so I can convey this to W.O. and Region

.....End of Interview.....

MEMORANDUM OF INTERVIEW
WITH DENNIS BROWN

REGIONAL AVIATION SAFETY MANAGER
PACIFIC SOUTHWEST REGION
AUGUST 11, 2008
REDDING, CALIFORNIA

IN REFERENCE TO THE N619AZ ACCIDENT
OF AUGUST 5, 2008

PRESENT: Dennis Brown, Zoe Keliher (NTSB), Elliot Simpson (NTSB), Jim Morrison (FS), and Dave Glose (FS)

THE FOLLOWING ARE NOTED POINTS AND COMMENTS MADE BY THE INTERVIEWEE:

On the evening of August 5th, I was in Sacramento. I received a phone call at 1956 from Trinity Helibase, Aaron Utterback. He informed me that tanker 766 had crashed. I was also told that Jim Ramage was on board. The initial report was that some people got off the helicopter after the crash and that there was a post-crash fire.

I then called the R5 Fire Director and the Regional Aviation Officer to inform them of the accident. The Fire Director wanted/needed more information.

At some point I called Ron Hanks and was unable to reach him. I then called Barb Hall. That was sometime before 2230.

I spoke to Ron Hanks at approximately 2230. Ron and I agreed that I would call the FAA/NTSB.

It wasn't until approximately 2245 when I called the FAA center to report the accident.

At the time of the call to the NTSB, the information I had was there were four persons medivaced, seven total injuries (3 moderate to minor). This information had come from Shawn Walters from Trinity Helibase.

I had no direct connection to any of the Air Operations people on the incident.

I also maintained contact with Ahrlen Cravens, the unit Fire Management Officer.

I called Jim Ramage's wife and informed her of the accident and that Jim appeared to be okay.

At about 0145 on August 6th, I received a phone call from Ahrlen Cravens and learned that nine persons were unaccounted for. Grids of the area had been done and no other persons had been found.

At that time, I decided not to call the NTSB to give them an update because I did not want to pass on any further information that may not be accurate.

Even at 0900 on August 6th, I was not 100% sure of the number of missing/unaccounted.

Interview with Jeffery B Carrier
(Notes from Jim Morrison, ASI, USFS)

Date: 8-11-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS; Elliott Simpson, NTSB;
Zoe Keliher, NTSB; Elliott Simpson, NTSB

Jeffery B Carrier (207-441-2580):

- July 29th was travel
- July 30th was ATGS (t) Trainee
- As ATGS, I was working with Tedd Hass
- Ted from Medford
- I was at planning meeting at start, 1930 hrs
- I was giving the Air Ops briefing at meeting
- In the middle of the meeting I hear radio traffic
 - “help is on the way”
- AOBD and Deputy I.C. also heard this
- 30 Seconds later Ty Miller, Willow creek manager said there had been an accident at H44 with helo 766
- Went to Air Ops trailer, there in 30 seconds
- Spoke with Ted and heard same
- Trying to figure out what was going on
- FM Command, Air to Air Victor link with Pilot of 420L, was a HELCO, she is relaying, staying in orbit over site, aircraft on fire, people on ground
- This is significant event
- While orbiting, Manager began taking over radio comms, very calm
- Russ Gordon was AOBD at the time
- Phone rings again, Ty
 - Paramedic and has gear
 - Asked if he should go to the site, I said yes, if you have adequate supervision
- Hess, Get air attack up right away
- 15 minutes a lot of traffic
- Do we drop water?
 - Maybe two helos in area
 - One low on fuel
 - Decision was to drop the water
- We started to get the info
 - 4 Injured on the ground
 - Knew mission, transport pax
- Ted, Go to H21, fueling and staging area, be prepared to transport people via ambulance, 20 minute drive to H21
- Dave Christensen
 - Dave started this
 - He has experience
 - I did aviation, he took care of the ground

Interview with Jeffery B Currier
(Notes from Jim Morrison, ASI, USFS)

Date: 8-11-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS; Elliott Simpson, NTSB;
Zoe Keliher, NTSB; Elliott Simpson, NTSB

Jeffery B Currier -----

- Set up triage area
- Helo 2KA, flying willow to H44
- Med ship enroute to area
- Jolly 91 enroute
- Tom Bagwell, ATGS, over fire, coordinating
- It's getting dark
- I hear, get call from Ted, 4 injured at H44 to hospital in Redding
- I kept the operation here going
- Dennis Kuster from ICP, Ted is trying to get ahold, -Use Black Hawk with NVG, may come in
- No lights on, had to tweek base
- 4 ambulances at this site now
- Heard 4 but preparing for more unaccounted for
- Places changed
 - Maybe 2100-2130
 - Blackhawk, instead of H44 go to Weverville
- Were down here at this evac site, H21
- I went to ICP, Air Ops, everyone listening to Air Ops
- Tom speaking to someone on the ground
 - Person was shaking, emotional
 - Tom was also asking is there any more victims?
- Seems this went on for about an hour
 - Who was on H44
 - Which crew do they belong to
 - Wanted head count
- Ted was also talking to Tom on cell
- Helo is down slope, heavy fire, too intense
- People at ICP were sensitive to persons at helispot, no one really wanted to say "any fatalities?"
- Kept asking, still too hot
- Gives us names at H44
 - Furgensen
 - Trinity
 - Wasatch
 - Came up with 21 inc this
 - With medical evac equals 30
- Crew from Greyback
- At 2230 someone figured out not all from Greyback was accounted for
- Also informed that this was out-bound-holy crap

Interview with Jeffery B Currier
(Notes from Jim Morrison, ASI, USFS)

Date: 8-11-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS; Elliott Simpson, NTSB;
Zoe Keliher, NTSB; Elliott Simpson, NTSB

Jeffery B Currier (-----):

- If there were others, walking wounded or walking out
- Maybe someone walked out to 71, so they took care of that
- Never heard about Jim Ramage
- After accounting for people it was determined
 - Darkness
 - Terrain
 - Shaken people
 - Commo was complicated
 - Fire was still very intense
 - Had to think fatalities here
- At 0030-0130, Ted said relieved-go to tent and see you in the morning
- Steve Metheny called at 0130, Ty gave him my number, he wanted an update
 - Helo is down
 - 4 injured and taken to hospital
 - 9 unaccounted for
 - Gave location and what I knew
 - Told Steve to report to ICP, commo concluded
- Spoke to Shawn at Trinity, called me just as I went to bed
 - What did we have for accountability, told him:
 - 4 transported to hospital
 - 9 unaccounted for
- Talked to Hass, Steve, Deputy IC Joe, Ted is ASGS for Gordon
- Commo, Airattack to Guy at H44
- Command was also trying to reach H44
- Commo at H44 was remote, scratchy
- There were not answers quickly
- More of a human element
- Karen at Med unit ordered Mercy Air, Reach, that unit is going directly to H44
- Mission:
 - Ops planning meeting, possible places to move people off rom mountain for IMET
 - Decision was made between Branch Director and Ops Chief
- We've done multiple crew shuttles without incident
- Great commo between helibases and Ops
- Daily briefings with Trinity
- I went to morning brief
- Then I would give brief
- I would give the missions for the day

Interview with Jeffery B Carrier
(Notes from Jim Morrison, ASI, USFS)

Date: 8-11-2008

Present at Interview: Jim Morrison, USFS; Dave Glose, USFS; Elliott Simpson, NTSB;
Zoe Keliher, NTSB; Elliott Simpson, NTSB

Jeffery B Carrier (-----):

- Usually I called the bases a couple of times a day
- 2 helibases were a good distance apart
 - At 0500 ground support would transport IAPs to the bases
- Commo-Guy on the ground
- Air Ops, speaking with Airattack to Ground
- On Command, everyone can hear

.....End of interview.....

MEMORANDUM OF INTERVIEW
WITH JEFF CURRIER

AIR SUPPORT GROUP SUPERVISOR TRAINEE
IRON COMPLEX
AUGUST 11, 2008
REDDING, CALIFORNIA

IN REFERENCE TO THE N619AZ ACCIDENT
OF AUGUST 5, 2008

PRESENT: Jeff Currier; Zoe Keliher (NTSB); Elliot Simpson (NTSB);
Jim Morrison (FS); and Dave Glose (FS)

THE FOLLOWING ARE NOTED POINTS AND COMMENTS MADE BY THE
INTERVIEWEE:

I was the Air Support Group Supervisor trainee (ASGS(t)), working for Ted Hass. At 1930 on the evening of August 5th, I was attending a planning meeting. Shortly after I overheard a statement on some radio traffic which stated 'help is on the way'. Shortly after hearing that radio transmission, I received a phone call from Ty Miller, Helibase Manager at Willow Cr. Helibase. Ty Miller gave me some basic information regarding the reported accident, including the aircraft and location.

I, with Russ Gorden, AOB and Ted Hass, ASGS, then met in the Air Operations trailer where we listened to radio traffic on the VHF-AM (victor link) radio.

We heard the pilot for N420RL report that an helicopter was down on the ground, on fire, and people were around the accident scene.

The manager on board N420RL then began describing/communicating what he was seeing at the accident site.

At some point, Ty Miller, HEB1 at Willow Cr. HB called and requested permission to get in a helicopter and go to the scene - Ty Miller is a paramedic. I gave the okay for Ty to respond.

We began receiving info that there may be four individuals injured at the scene.

Ted Hass, at this time, gave me the responsibility of setting up Helispot 21 to receive injured personnel if necessary.

I set about, with the help of the Division Group Supervisor and the Medical Unit Leader, to prepare H-21 for receiving injured.

Dennis Kuster, also an ASGS, let me know that the National Guard helicopter had Night Vision Goggles (NVG) and that would need to be prepared for the possibility of them landing at H-21.

The Medical Unit had everything prepared for numerous injuries

It was some time later that Ted Hass informed me that the four injured persons would be flown to Redding or Sacramento. And then Ted informed me that no helicopters would be landing at H21.

I then returned to ICP and the Air Operations trailer. There I could hear the Air Attack (ATGS) speaking to individuals at H-44. The ATGS was trying to ascertain whether there were more injured persons at H-44. Eventually the ATGS asked for a headcount and list of names at the helispot.

At some point, names were relayed from H-44 of the names of those that were alive and well at the helispot.

At about 2230 we determined that several persons were unaccounted for.

Later that night, shortly after bedding down (approx. 0130), I received a phone call from Steve Metheny, Carson Helicopters. I also, at one point, spoke with Shawn Walters of Trinity Helitack and informed him that there were nine persons unaccounted for.

I provide an IAP and maps to the Trinity Helibase every day. That information was delivered by ground support each morning.

OTHER POINTS FROM QUESTIONING:

The Medical Unit Leader ordered the Mercy Air Lifeflight helicopter.

I had no reservations in moving the people off of the fireline due to the weather forecast.

The communications to the helispot were sketchy at times meaning the personnel were unresponsive. I mean they could not hear all transmissions and we could not hear all of their transmissions.

Jim Morrison's (ASI, USFS) notes of conversation with Mr. Frank Carson, Owner for Carson Helicopter Services at Perkasio, PA and Grants Pass, OR on 12-05-2008:

Mr. Frank Carson:

- Mr. Carson owns both companies (West and East coast operations) 100%
- When we went to FAR 135 we wanted to separate the businesses
 - Not have all the eggs in one basket
 - Strictly a business decision
- I talk with Steve Metheny about twice a day
- Spent about a half million dollars on each hoist (rescue hoist on the helicopters)
- Steve gets my approval for all of the contracts
- Mr. Carson goes to West coast operations about once a year
- We have "operations" in Grants Pass and "engineering" here (Perkasio)
- Steve Metheny came on about 8 years ago
- Steve Metheny came on as an assistant and moved up to current position when V.P. got sick
- We have interest (for Carson work) all over the world
- Build unique aircraft for the Forest Service (FS), geared to design optimal aircraft for the FS.
 - Need longer contracts (longer period of time)
- Mr. Carson makes maintenance decisions when it involves large costs (like over 40K\$)
- West Coast (Carson) is our biggest customer
- Regarding N612AZ:
 - Bought both (2) aircraft about the same time
 - Process:
 - I just make a decision whether to buy
 - I know we'll have to buy (replace)(an aircraft) for the accident aircraft
- Steve Metheny and Jeff Hill talk
- Regarding the helicopter charts
 - We developed the charts with the FAA , Chief Pilot Boyd, Sikorsky Test Pilot and Pat Curtis (Professor and DER)
 - We wanted a Category A for one engine inoperative
 - We did varied test with airspeed and altitude
 - Charts did not come erroneously from here
 - Regarding chart development:
 - Charts come here from Pat Curtis to the FAA to Jeff Hill
 - Regarding certification
 - We first fly the aircraft
 - Then we invite the FAA to validate the test results
 - I (Frank Carson) did not review the charts

- Found out about the modified charts after the accident
 - DER approves any blade repair/disposition
 - Transmission limit-limit power engine can produce
 - FS created specs that we could handle (in talking with Steve Metheny)
 - We don't give Cat. A to any other operators
 - Steve Metheny has never done anything unethical
 - With the new blades we pick up as much as 2,000 lbs. more weight
-End of notes with Mr. Frank Carson.....

08/08/2008 Brian Buchner- 52 32 32 2

Employer Unknown

- Brian was up at H-44 assisting with troop shuttles
- Had netted up cargo and backpacks to be taken off of H-44 by external load.
- Stated that Tanker 766 arrived from the North and landed facing east on the Heli-Spot.
- Brian also commented on the initial approach the A/C and said that it cause a very bad brown out which caused an aborted landing.
- Reported light winds of 2-3kts out of the south.
- During the initial vertical takeoff of the accident flight Brian said that the A/C picked up facing east, proceeded forward while turning 90 degrees to the right, and then 90 degrees to the left before departing.
- Brian said it looked like the A/C was attempting to split a gap between two trees.
- After accident he saw two people outside of the A/C. One was walking wounded and complaining of back pain & one lying down about 60 yards in front of the A/C

Memorandum of Interview: August 8, 2008

Person Interviewed: Brian Buchner, cell -----

Interviewed by: Gary Morgan, Zoe Keliher

He had just finished slingloads at the left side of H-44, heard the helo was 8 miles out.

He told all the passengers to put on their PPE and Prepare to Board.

The Aircraft came in from the North and landed facing East. He led the troops to the aircraft. He relayed information to the pilot about clearance between the water tank and the ground. Jessica helped the passengers with their seatbelts. He put the saws and tools into the belly. He exited the aircraft and went to a safe point, gave and received a thumbs up and waited for the aircraft to lift.

It lifted sluggish and slow, not like a usual takeoff. It proceeded toward the trees, turned south, gained height (about 40 ft), proceeded to the east. The belly scraped some trees. He split a gap between some trees, the rotor blades struck a tree. Debris started flying. The gap he tried to split was about 20 ft. wide. The belly cleared but the blades hit.

15 to 20 seconds after it hit the ground it was on fire, heat was too intense to go near it, he heard some explosions. Noticed walking wounded. One was complaining of back pain. We carried him up the hill and told him not to move. The second individual was laying 20 ft from the helo. We called to him to get up, he did and came up to us. The victims had no recollection of the accident.

Winds were light, 2-3 knots from SE. Witness was located South of landing area with a view of the right side of the aircraft. The first tree strike, he was at about 25 feet and losing altitude.

Asked about manager, he said there was usually a manager on the helo. Reason for no manager was that the helicopter inspector was on board.

Asked about level of activity (rush). – “I believe we were behind the power” they were supposed to start shuttles about 5:30 so “we were behind schedule”.

The Weather called for lightning that night and next day. No cloud build ups at that time, winds were steady from South East.

Briefing – Matt Vassel does manifest and briefing, we only loaded the crews. They did encounter brownouts and told the pilots to land in a more “DG” landing (decomposing granite).

Interview with Richie Bourgeois, Aircraft Technician, Carson Helicopter Services, Inc
(Notes from Jim Morrison, ASI, USFS)

Date: 8-10-2008

Present at Interview: Jim Morrison, USFS, Shawn Moretz, Carson Helicopters Services Inc.; Zoe Keliher, NTSB; Elliott Simpson, NTSB

Richie Bourgeois, Aircraft Technician:

- Monday the 4th came on board
- 31st, still in the records, 31st travel day
- 31st, tonight, Main rotor torque
- Spoke with mechanic
- Pressure plate removed, another retorque do
- Other mevhronics, Tim OBrian and Steve Kenyon
- This was first retorque check
- 1st, Friday, is the first day I went to work
- First job-Inspect the work done the night before as a safety check, pressure plate up, visual check
- 1st
 - Preflight checks
 - No fly day
- 2nd Came in at 0800
 - Preflight checks
 - @1330, late getting back, 2100 approximately
 - Changed #2 Tach Generator, Ng, it was fluxuating
 - Changed out center tank over fill sensor, it was flickering
- Fuel truck driver is a helper
- Tim O'Brian is lead mechanic
 - Helping me take the seats out, row 3 & 4 and remove side panels to change out the center tank over fill sensor
- Cargo door light was flickering, adjusted the sliding door forward switch
- That was it, also did post flight inspection, finished about 2230
- Pulled the sump screen on the main transmission, every 10 hrs, daily
- 3rd, preflight, no flights
- 4th, preflight, no flights
- 5th, preflight
 - At 1530 removed first seats for rappel training, reinstalled seats after training
 - 135check ride was late afternoon
 - No way were we going to get 3 shuttles done that night
 - Ash, lots of ash on the blades and windshield when I was doing my inspection while fueling
- 135 check ride, fueled, did shuttle, 2 done, fueled, going out for last three-concern

.....End of Interview.....



RECORD OF CONVERSATION

Elliott Simpson – NTSB, Air Safety Investigator

Persons Contacted: George Beran

Phone: - -----

Date: 8/12/2008

Time: 1800

Subject: LAX08PA259 ; Sikorsky S61N, N612AZ, Weaverville, CA

The following is a summary of conversation with George Beran.

Mr. Beran is a crew chief employed by Carson Helicopter Services. He reported that he has observed a pilot attempting to raise a Carson S-61 helicopter into a hover with the collective bungee cord inadvertently attached. He observed the pilot begin to pull the collective, and then realize the bungee was attached. He noted that the helicopter did not enter a hover, rather he observed the oleo struts on the main landing gear extend a few inches. The pilot then pushed down on the collective and released the bungee cord without further incident. He does not recall the pilot or the specific helicopter involved in this incident.



RECORD OF CONVERSATION

Elliott Simpson – NTSB, Air Safety Investigator

Persons Contacted: Mike Woolsey

Phone: -

Date: 8/21/2008

Time: 1815

Subject: LAX08PA259 ; Sikorsky S61N, N612AZ, Weaverville, CA

The following is a summary of conversation with Mike Woolsey.

Mr. Woolsey is a helicopter pilot employed by Carson Helicopter Services. He was first employed as a pilot for Carson during 2006 for a period of one year. He has since returned to Carson and has been with the company since March 2008.

He flew the accident helicopter, N612AZ from July 8, 2008 to August 1, 2008 and estimates his total flight time for that period to be 35 hours. During that period he reported that during a flight the gearbox chip detector light illuminated. The gearbox was replaced within 24 hours and he flew the helicopter again without incident. He did not recall any other mechanical issues with the helicopter, and further commented that it was one of the nicer helicopters he has flown. He could not recall any unusual characteristics specific to this helicopter.

Mr. Woolsey stated that he had known Mr. Schwanenberg for a few years and commented that he was one of the best pilots he had ever been acquainted with. He further stated that Mr. Coultas was an excellent pilot who was very thorough, and who always 'flew by the numbers.'