Records Selected: 1

Run Date 22-Dec-2008

FEDERAL AVIATION ADMINISTRATION

Accident / Incident Data

PARACHUTING ACCIDENT
FOR THE PERIOD OF: SEPTEMBER 13, 2008
SORTED BY: DATE

PREPARED FOR: JAN MEYER

CONTROL NUMBER: 2009-000943F6

DATE / NNUM / EVNT	ACFT MAKE / ACFT MODEL / REMARKS	ENG MAKE / ENG MODEL	CITY / DO	DAMAGE	ST	PHASE OF FLT / ACC/INC TYPE	TFLYP / TFLYS	FLTCP / FLTCS	SUPPF A / SUPPF B	CONTRF A / CONTRF B	FATAL / INJ
09/13/2008 / NONE / G			JONESVILLE / EA39		NC	PARA JUMP					2 / 2

(-23) ARRIVED ON SCENE AT APPROXIMATELY 3:30 PM. MET WITH YADKIN COUNTY SHERIFF DEPARTMENT DETECTIVE ^PRIVACY DATA OMITTED^ AND ^PRIVACY DATA OMITTED^, ^PRIVACY DATA OMITTED^. THE DETECTIVES GAVE ME WHAT INFORMATION THEY HAD AND INTRODUCED ME TO THE AIRPORT OPERATOR ^PRIVACY DATA OMITTED^ AND PARACHUTE PACKER ^PRIVACY DATA OMITTED^. I ASKED IF THERE WERE ANY EYE WITNESSES. THE DETECTIVES GAVE ME THE NAMES OF MICHAEL VORDO^PRIVACY DATA OMITTED^TIM WOOD^PRIVACY DATA OMITTED^MR. BILLY COCKRELL^PRIVACY DATA OMITTED^MR. COCKRELL^PRIVACY DATA OMITTED^ THAT I WOULD NEED TO SEE THE PACK AND PARACHUTES. ^PRIVACY DATA OMITTED^ INFORMED ME THAT HE HAD THE PACK AND EMERGENCY PARACHUTE, BUT THE MAIN PARACHUTE WAS IN THE TREES 100 YARDS AWAY FROM WHERE THE PARACHUTIST HIT THE GROUND. I ASKED THE DETECTIVES TO ESCORT ME TO THE SITE WHERE ^PRIVACY DATA OMITTED^ AND ^PRIVACY DATA OMITTED^ IMPACTED THE GROUND. THE IMPACT SITE WAS IN THE FRONT YARD OF A LOCAL RESIDENT, WHO THE DETECTIVES OBTAINED PERMISSION FOR OUR PRESENCE. ^PRIVACY DATA OMITTED^ AND ^PRIVACY DATA OMITTED^ HAD BEEN REMOVED BY EMS PERSONNEL PRIOR TO MY ARRIVAL. THE DETECTIVES ESCORTED ME TO THE WOODS BEHIND THE LOCAL RESIDE NTS HOUSE WHERE THE MAIN PARACHUTE WAS LOCATED. I PHOTOGRAPHED THE MAIN PARACHUTE LOCATIONS IN THE TREES AND IDENTIFICATION DATA ON THE PARACHUTE. I RETURNED TO MEET WITH ^PRIVACY DATA OMITTED^ AND ^PRIVACY DATA OMITTED^ I INFORMED ^PRIVACY DATA OMITTED^ THAT I WOULD NEED TO HAVE THE PACK, MAIN AND EMERGENCY PARACHUTE LAID OUT FOR INSPECTION. ^PRIVACY DATA OMITTED^ COMPLIED WITH MY REQUEST BUT INFORMED ME OF THE BIOHAZARD ASSOCIATED WITH THE PACK. I REQUESTED A COPY OF ^PRIVACY DATA OMITTED^ PARACHUTE RIGGERS CERTIFICATE AND THE PACK CARD. ^PRIVACY DATA OMITTED^ PROVIDED ME WITH A COPY OF THE PACK CARD AND HIS LICENSE. I INFORMED ^PRIVACY DATA OMITTED^ THAT I WOULD NEED A WRITTEN STATEMENT FROM HIM ADDRESSING THE ACCIDENT. I NEXT REQUESTED THAT ^PRIVACY DATA OMITTED^ REVIEW WITH ME FROM START TO FINISH THE PACK AND PARACHUTE PROCEDURES ASSOCIATED WITH THIS ACCIDENT. ^PRIVACY DATA OMITTED^ EXPLAINED THAT BASED ON THE MAIN PARACHUTE LOCATION AND VIDEO, THE MAIN PARACHUTE HAD BEEN CUT AWAY. IN ADDITION HE POINTED OUT THE THE CYPRESS EMERGENCY PARACHUTE DEPLOYMENT SYSTEM HAD ACTIVATED AUTOMATICALLY; HE POINTED OUT THE CUT WITNESS STRING ON THE PACK. THIS WAS PHOTOGRAPHED. I ASKED ^PRIVACY DATA OMITTED^ AND ^PRIVACY DATA OMITTED^ WHY THE MAIN PARACHUTE DID NOT OPEN PROPERLY. THEY INFORMED ME THAT THE MAIN PARACHUTE APPEARED ON THE VIDEO AS DEPLOYING PROPERLY, BUT THE EMERGENCY PARACHUTE AUTOMATICALLY DEPLOYED DUE TO SPEED OF 78 MPH AND ALTITUDE OF 1900

NUMBER OF RECORDS: 1

*** Official accident causes are determined by the National Transportation Safety Board (NTSB). Accident Cause Factors in this report are the Federal Aviation Administration's interpretation of multiple technical factors and statements taken from the original NTSB**

U.S. Department of Transportation
Federal Aviation Administration

Greensboro FSDO
6433 Bryan Blvd.
Greensboro, North Carolina 27409
336-662-1000, Fax: 336-662-1060

October 7, 2008 Amendment Date 10/14/2008

Record of Parachute Incident Investigation
Incident # 1EA392008019

Notification: 12:50 PM Saturday 9-13-2008. GSO Tower Nick Mazzuca 336-333-5119.
Follow Up Call From Maurcie Jones ATL Comm Center, 404-305-5180.

Location: Swan Creek Airport (78A) 1135 Jonesville, North Carolina.

Report: Tandem Parachute Jump; two fatalities.

General Information:

1. Yadkin County Sheriff Department Teresa Odell 336-679-4242.
2. Aircraft CE-206, N316ML
3. Pilot [redacted]
4. Billy Cockrell, Swan Creek Operator 336-835-5955 or 336-518-4044
5. ATL ATC Supervisor Notified, Jack Allen 770-210-7622
6. FSDO Supervisors Notified, Bill Newby 336-465-1001, Jim Allen 336-841-0313
7. Witness: Video of Parachute Jump by [redacted]
8. Witness: [redacted]
9. Witness: [redacted]
10. Witness: Parachute packed by [redacted]
11. NTSB Notified: Mr. Paul Cox.
12. Fatalities: Mr. James D Pregler — Adam R. Howard

Mr. James D Pregler	Adam R. Howard
[redacted]	[redacted]
[redacted]	[redacted]
Ph. [redacted]	Ph. [redacted]
Instructor	Student

Narrative of on scene events:
Arrived on Scene at approximately 3:30 PM

1. Met with Yadkin County Sheriff Department Detectives Donnie Talley & Robin Moxley, 336-679-4217, 336-518-6169. The detectives gave me what information they had and introduced me to the airport operator Billy Cockrell and Parachute packer Mr. Elmer A. Conner. I asked if there were any eye witnesses. The detectives gave me the names of [redacted] who had jumped prior to the fatal tandem jump and [redacted] who videoed the tandem jump. I requested a copy of the video and any photos taken. Mr. Billy Cockrell had already made a copy for me. I requested the phone numbers of the eye witnesses so that I could get written statements later. I informed Mr. Cockrell and Mr. Conner that I would need to see the pack and parachutes. Mr. Cockrell informed me that he had the pack & emergency parachute, but the main parachute was in the trees 100 yards away from where the parachutist hit the ground. I asked the detectives to escort me to the site where Mr. Pregler and Mr. Howard impacted the ground. The impact site was in the front yard of a local resident, who the detectives obtained permission for our presence. Mr. Pregler and Mr. Howard had been removed by EMS personnel prior to my arrival. The Detectives escorted me to the woods behind the local

resident's house where the main parachute was located. I photographed the main parachute location in the trees and identification data on the parachute. I returned to meet with Mr. Billy Cockrell and Mr. Elmer Conner. I informed Mr. Cockrell that I would need to have the Pack, Main and Emergency Parachute laid out for inspection. Mr. Cockrell complied with my request but informed me of the biohazard associated with the pack. I requested a copy of Mr. Conner's parachute riggers certificate and the pack card. Mr. Conner provided me with a copy of the pack card and his license. I informed Mr. Conner that I would need a written statement from him addressing the accident. I next requested that Mr. Conner review with me from start to finish the pack and parachute procedures associated with this accident. Mr. Conner stated that he had only packed the reserve parachute. In addition Mr. Conner explained that based on the Main Parachute location and video, the Main Parachute had been cut away. In addition he pointed out that the Cypres Emergency Parachute deployment system had activated automatically; he pointed out the cut witness string on the pack. This was photographed. I asked Mr. Cockrell and Mr. Conner why the main parachute did not open properly. They informed me that the main parachute appeared on the video as deploying properly, but the emergency parachute automatically deployed due to a speed of 78 mph and altitude of 1900' which might explain why the Main parachute was cut away. I asked Mr. Conner to explain how the Cypres (Cybernetic Parachute Release System) auto deployment system worked. Mr. Conner provided an explanation stating that at an altitude of 1900' and speed of approximately 78 MPH, the cutter is activated and deploys the emergency parachute. I next requested that the Cypres auto deployment unit be removed from the pack so that I could send it out for evaluation to determine what data may be available on the unit for analysis. I next asked why the emergency parachute did not deploy properly. I was informed by Mr. Conner that based on what he saw at the impact site, it appears that two of the emergency parachute lines were entangled with the Sky Hook lanyard. I asked why the Sky Hook lanyard was entangled with the two emergency parachute lines. Mr. Conner stated that the entanglement may have occurred due to the fact that the tandem jumpers were in a vertical position with the main parachute deploying during the emergency parachute deployment. In addition, the late deployment of the main parachute appears to have contributed to the entanglement. Mr. Conner's stated that if they had been in the horizontal position with more altitude the entanglement might not have occurred. The pack, emergency and main parachute were photographed. I asked Mr. Cockrell if he could quarantine the pack, main and emergency parachute until my investigation was complete. I stayed on scene until Mr. Conner completed his written statement. I requested that Mr. Conner provide a computer copy to me through E-mail later. Departed Scene at approximately 6:30PM.

Information sources reviewed:

1. Video of exiting aircraft, free fall to cloud level with Main Parachute opening.
2. Photographs of pre-jump, jump, free fall to cloud level, Main parachute opening, impact site, parachutist, pack and emergency parachute.
3. Photographs by Hazen Rowe.
4. Copy of Reserve Pack Card.
5. Copy of Elmer Alfred Conner Senior Parachute Rigger License, number 3064205.
6. Cypres Model tand/feet/2 rel., Mfd 11/02, Serial Number 11114B665BC722 4T. Unit sent to Mr. Cliff Schmucker at SSK Industries, 513-934-3201. Received Examination Report on 10-03-2008 from Airtec Safety Systems on the Cypress Serial Number Unit 11114B665BC722-4T.

7. Weather report from NOAA's National Climatic Data center from closest airport with weather reporting Wilkes County Airport 13 miles away.
8. USPA Parachute Instructor Tandum instruction training and ratings information from Mr. Jim Crouch.
9. North Carolina Aeronautical Chart for Swan Creek Airport Altitude 1135'.
10. ∑Sigma Tandem Parachute System information.
11. Relative Workshop SkyHook RSL Packing Instructions information.
12. Written statement from Mr. Elmer Conner with drawings 9-17-08.
13. Additional Written statement and drawings from Mr. Elmer Conner addressing cut away 10-7-08.
14. Written statement from [redacted]
15. Written statement from [redacted]
16. Written statement from [redacted]
17. Written statement from Jump Pilot [redacted]
18. Record of Parachute Equipment Inspection by Manufacturer, 10-10-08.

NOTE: Currently the Federal Aviation Administration (FAA) certificates and regulates Aircraft, Airmen, Air Carriers and Air Agencies. The FAA does certificate parachute riggers/Airmen. The FAA does not certificate or regulate Parachute jumpers. The Aircraft and pilot/airmen involved in this parachute accident do not appear to be factors. Due to the aforementioned the FAA investigation of this parachute incident will focus on the pack, parachutes and parachute rigger. Any issues addressing the parachute jumpers or operation of the parachute equipment will not be addressed by the FAA.

FAA Designated Parachute Rigger Examiner (DPRE) Review of Investigation Report:

1. Met with Mr. Timothy Tennant on 10-01-2008. Mr. Tennant is the Greensboro Flight Standards District Office, Designated Parachute Rigger Examiner. Mr. Tennant was requested to review all the information, data, photos and investigation report to find any faults in the investigation.
2. Mr. Tennant found no errors in the investigation report conclusions.

Meeting with representative of the tandem parachute manufacture scheduled on 10-10-2008 at Swan Creek Airport:

1. Met with Mr. Mark Procos and William R. Booth, Phone number [redacted] Inspected Pack and parachute involved in the fatal incident.
2. Observed Mr. Mark Procos and Mr. William R. Booth inspect the equipment. The riser cutaway cable could not be located during the inspection. The inspection by the manufacture personnel did not reveal any new information. The question of how the Skyhook became entangled with the reserve parachute could not be definitively explained.
3. Mr. Elmer Conner informed the manufacture of his concerns and questions addressing the cutaway and eye witness statements. Mr. Conner reviewed the tests he performed addressing the reserve bag deployment initiating an unintentional cutaway with the manufacture personnel. Mr. William Booth and Mr. Procos stated that his theory may be possible, but they would need to perform some tests to see if his theory could be verified.

Analysis:

1. The video of the tandem jump, photographs and witness statements indicate that the main parachute deployment altitude was initiated around 2,500 AGL. The Sigma parachute manufacturer limitations on this equipment list 4,000 AGL as the minimum and 5,500 AGL recommended.
2. The Cypres Automatic Activation Device (AAD) activated and deployed the emergency/reserve parachute around 1,900' AGL, prior to the main parachute being cut away. Photographs of AAD cutter string and eye witness statements verify this.
3. The Emergency Parachute Bridle, Skyhook and two lines from the emergency parachute became tangled, keeping the emergency parachute from deploying. Verified by photographs at impact site. Reference photograph numbers 078 through 0600.
4. The Emergency Parachute was deployed by the AAD with the main parachute still attached and the jumpers in a vertical position. Reference photographs and eye witness statements.
5. The Examination Report from Airtec Safety Systems on the Cypres Serial Number Unit 11114B665BC722-4T documents the unit activation altitude at 600m (1,970ft). The report documents the Cypres unit performing exactly as designed.
6. Documentation from Mr. Elmer Conner, dated 10-7-08, supplemented by the eye witness statements of [redacted] and [redacted], call in to question a reserve activation initiating an unintentional cutaway of the left main riser. This scenario coupled with the eye witness statement may explain why the tandem instructor cutaway his main canopy at such a low altitude.

Conclusions:

1. The Main parachute was deployed at too low of an altitude and may not have been properly assessed prior to cut away.
2. Entanglement of the emergency parachute bridle, skyhook and lines appears to have been caused by the main parachute being attached during the emergency parachute deployment.
3. Up to this point in time no definitive information is available to establish any problems with the parachute equipment or packing.
4. Mr. Conner's written statement, dated 10-7-08, drawing and tests performed coupled with the eyewitness statements of [redacted] and [redacted] of the left side of the main canopy flapping in the wind, call in to question whether the reserve deployment bag falling out of the container under a deployed main canopy with the red Skyhook lanyard can cause the Collins lanyard to be pulled down enough to release the left main riser. Independent testing should be performed to determine if Mr. Conner's theory is correct. If Mr. Conner's theory is proven correct an Airworthiness Directive should be issued against the affected Technical Standard Order (TSO) TSO-C23d personnel Parachute Assembly.

Safety Recommendation:

1. Revise FAR 105.45 and USPA requirements to require Tandem Parachute Instructors to wear and use audible helmet altimeters.
2. Require further testing by an independent party to establish if the reserve deployment bag falling out of the container under a deployed main canopy, with the red Skyhook lanyard can cause the Collins lanyard to pull down enough to release the left main riser. If this scenario can be verified an Airworthiness Directive should be issued against the affected equipment.

Sincerely,

Hazen Rene' Rowe
Aviation Safety Inspector