Parachutist



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FATALITY

TO: Parachute Club of America

Dear Sir:

It is our unpleasant duty to report the following fatality happening to a military parachutist, not a member of our club nor a PCA member, but making a sport parachute jump in our area:

- 1. Name: Thomas P. McKinnon, Sgt., USArmy
 Fort Lee, Virginia; 28 years old; married; currently on jump status with
 an ABN unit at Ft. Lee; a Master Parachutist with 115 S/L jumps.
- 2. Not a member of PCA; not a member of Dixie Divers Sport Parachute Club.
- 3. Accident deals mainly with the unintentional water landing and subsequent drowning; however, conditions leading up to the accident are included for the complete story.
- 4. Data The undersigned club SO was present throughout the day's activities.

Date: 30 July 1961

Time: 1815 Take Off 1825 Jumper landed in water

Place: Hopewell Airport, Hopewell, Virginia

Weather: Sunny and Hot

Wind: 2-4 mph

Arcrft: PA-22 (Tri-Pacer)

Pilot: Private License (Has flown our jumpers on many occasions)

Qualified Parachutists present: 5

Four parachute jumps had been made that afternoon w/all jumpers landing close to target area (deceased had satisfactorily completed one of these jumps, S/L).

Exit point remained same for all jumps.

Jump altitude: 2800 ft

Delay: Jump and pull (Jumper's first FF)

Equipment: Sky Diver Back Pack & Harness (Quick Ejector)

C-8 Canopy modified to single T - Sky Diver Reserve

Boots, Coveralls, Helmet.

Time 1815: Tri-Pacer took off with McKinnon and C-Licensed JM aboard. At 2800 feet at the exit point, McKinnon left on JM's "Go" and JM followed on the jump and pull. Both opened and faced target downwind, JM giving instructions to student as needed as they descended. McKinnon was facing target in the proper attitude all the way down; canopy control was correct in this case. At approximately 500 feet it was apparent that McKinnon would be just short of DZ in small clump of trees alongside road, or on the road itself. Jumper maintained toward-targ et-attitude. This observer's line of sight (just off to one side) had jumper landing in road. At 200 feet McKinnon undid left side of hold-down strap

and reserve, letting go of control lines as he did so. Parachute drifted somewhat to right out over the water and them McKinnon went out of sight beyond the river bank. It appeared he was just in the water beyond shoreline. JM landed in front of Adm building.

Five people were immediately on river bank and started out to McKinnon, who was 50 to 60 yards offshore, further than it appeared as he went in. He yelled Help and I can't swim several times. He was still in his harness. (McKinnon was a very good swimmer and was to take his life saving exam the next week) — apparently the weight of the equipment prevented him from moving.

Unluckily for him he had landed in a 8 foot deep channel that ran parallel to the shore. Elsewhere along the shore and out 200 yards the water at high tide is only waist deep. High tide was in effect at this time and there was also a full moon causing the water to be somewhat higher than usual.

He had gone under water once after several cries for help and stayed down just before first man reached him. The water is pitch black in this area and even though there was a stream of bubbles the jumper couldn't be located. The swimmer here and the others arriving were exhausted and were forced to move several feet away so they could stand up.

A boat just offshore arrived and was brought into action. McKinnon was then located and hauled into the boat and brought to shore unconscious. A physician was waiting on shore and first aid was immediately given. Ten minutes later the emergency crew that had been summoned arrived and a resuscitator was used. Shortly with the man still unconscious the ambulance and doctor were rushed to the Hopewell hospital 3 miles away. Every effort was made to revive McKinnon but after three hours the doctors decided that it was futile. In final opinion of the doctor McKinnon had initially taken in far too much water and was actually dead at the river altho! there was still a slim chance. Everything possible was done.

5. Cause of Death: Drowning

Contributing Factors: Failure of jumper to follow through with the prepare-for-water landing.

NO Floatation Gear, although this equipment is available and is normally used. It is ready and kept serviceable at all times. (However, w/jumper still in his harness, the waist type floatation gear would have been ineffective).

6. Summary: Corrective action to be taken - The Hopewell Airport operation area will be limited to qualified parachutists only, with greater emphasis being placed on emergency procedure for water landings. It was realized from the outset of jump activities at this location that instruction on this type of emergency was of prime importance and was so carried out in the training program and also prior to each individual jump with the present conditions for that day being gove over carefully.

We learn by other people's mistakes and our own. We sincerely regret the necessity for this report even more because it is one of several already in PCA's files.

7. A copy of this report has been sent to the local FAA representative."

ACCIDENT REPORT

DATE: 9 July 1961 TIME: 1500 hrs. INJURY: Right leg broken above ankle

CAUSE: Malfunction of main canopy during sport type parachute jump and malfunction of reserve parachute.

WIND VELOCITY: Reading 8-12 mph

SUBJECT'S EXPERIENCE: 35 D/F Sport Parachute Jumps

1. Explanation:

- a. Equipment used: Standard 28' canopy, sleeve deployed, manually activated, Alteration TU/5 with Mitchell lip, slow speed parachute. Reserve, standard T7A 24' canopy.
- b. Planned delay: 30 seconds D/F from 7200 ft
- c. Upon reaching an alt of 7200 ft, subject jumped as last man in three man stick. During descent he maintained a "tracking psn." trying to follow another jumper. In this position, stabilized body can reach speeds up to 180 mph. Subject did not attempt to slow his speed before opening, and activated his main canopy of which the apex and sleeve went thru the open gores, due to high speed, and caused a Mae West malfunction. NOTE: This action was observed thru binoculars by DZSO. At this time subject was supported by an estimated 15% of his canopy. During descent the main canopy proceeded to turn, approx (1) 360 degree turn per second. Subject maintained a descent for about 30 seconds, before activating his reserve parachute without thinking of results or possibilities of entanglements of reserve in his main canopy. Due to turning motion of main canopy the activated reserve went around the twisting suspension lines and failed to deploy. DZSO proceeded in Med. jeep towards expected impact area, and observed jumper's action on impact. At approx. 50 ft over the ground the main canopy completely collapsed and subject hit the ground at about 50 feet per second, with left leg bent and high above his right leg. Subject received all the shock on his right leg only. It appeared that only right leg was fractured. Subject never lost consciousness. The bone of his right leg protruded thru his coveralls and above top of his boot.
- 2. Equipment inspection: Main canopy showed burns and apex threaded thru open gores. His reserve parachute was entangled in the suspension lines of his main parachute. Only (2) stows of suspension lines from reserve parachute deployed. Reserve was packed without pilot parachute as required by regulations of PCA and Club SOP's.

Recommendations to minimize accident while main canopy maintains turning during Mae West malfunctions:

- 1. Main canopy should be disconnected by use of capewell releases if malfunction appears at or above 2,000 feet and reserve parachute should be activated immediately.
- 2. Below 2,000 feet, reserve should be activated and held by jumper until at least 6' of suspension lines can be deployed, then the reserve canopy should be thrown by force away from jumper."

US PARACHUTE TEAM SWEEPS INTERNATIONAL COMPETITION: Since our first team met international parachuting competitors in 1956 at Tushino Airport in Moscow, we have struggled to emerge victorious from a significant international match. Now, five years later, we have achieved this goal!

Following Yugoslavia's cancellation of the bi-annual Adriatic Cup Meet scheduled for

August, France confirmed its plans to host an informal international meet and invited the USA, the USSR, and Bulgaria to compete in a four-country meet.

PCA accepted, notified the seasoned US Team Leader, Col. Bill Grieves, and after the necessary practice and preparations the team took off for Paris. From Aug 12th through 20th, the team competed in three events against four teams — France entered two teams.

When the final individual event scores were tallied, <u>LOY BRYDON</u> had won First Place in the Accuracy Event, the USSR Second Place, and <u>JIM PEARSON</u> Third Place. <u>JIM ARENDER</u> won top honors in the Style Event, the Bulgarians placed Second, and the USSR Third. The Team Event was captured by the <u>USA</u> with a lead margin of over 100 points, France placed Second, and the Soviet team Third.

Overall Meet Winners were $\underline{\text{JIM PEARSON}}$, First Place, the USSR with Second Place, and $\underline{\text{LOY BRYDON}}$ in Third Place.

FOR THE FIRST TIME IN ITS SHORT HISTORY, THE UNITED STATES PARACHUTING TEAM MADE A CLEAN SWEEP IN AN INTERNATIONAL PARACHUTE COMPETITION!

This historic 1960-61 team of seven US Army members and one civilian, was composed of Colonel Bill Grieves-Team Leader, Competitors, Jim Pearson, Danny Byard, Loy Brydon, Dick Fortenberry, Jim Arender (civilian), Jerry Bourquin-Alternate, and US Judge Jim Perry. All of the Army Competitors are members of the US Army Parachute Team at Fort Bragg, N.C.

On behalf of all the members of the PCA we publicly congratulate the men of this fine United States Parachute Team whose outstanding performance has set the highest precedent for every future competitor.

THE FOLLOWING SIX MONTHS OPERATION REPORT was received from Capt. James Perry, a PCA Area Safety Officer at Fort Bragg, N.C., and we reproduce the major portion herein because it is a good report and many groups across the country can benefit from the information and observations relative to minor details which cause injuries — a point which has been stressed by PCA for some time:

"I have just finished tabulating our total jump effort here at Fort Bragg for the months January through June, so I suppose you could call this a semi-annual report of safety for sport parachuting at this base. At any length, the report produces some interesting figures, a few significant trends, and might serve as a good sounding board for other clubs around the country:

Total number of parachute jumps	6,443
(Delayed falls 5,975)	A. E. S. S. L. F. S. S.
(Static lines 468)	
Total number of jump days	185
Total number of jumpers participating	148
Injuries	14*
Malfunctions	19
Fatalities	Ô

* These injuries break down like this: 9 simple lower leg fractures, 2 simple ankle fractures, 1 simple lower arm fracture, 1 fracture of small foot bones, and 1 fracture of left femur. In addition, there were 2 sprained backs and 4 sprained ankles, none of which required hospitalization. I might add that 2 of the broken legs resulted during the meet in April.

Now, let's take a look at some of the significant trends: The malfunctions first.

All of the after-action reports must include a malfunction report if one occurs. All

of these 19 malfunctions were semi-inversions (mae-wests) and the most predominate remark on the reports is "jumper rolled into lines on opening." Of the 19 malfunctions, 14 of them occurred on the man's <u>first</u> free-fall. The other five, believe it or not, resulted from skilled jumpers and the most predominate remark on these is "jumper was in an extreme head-down position on opening." Of these 5, one occurred on a 32-foot canopy and, in addition to the mae-west, had a tight cigarette roll on one side. It is needless to say that all jumpers deployed their reserves properly. One of the broken legs, however, resulted when the jumper landed using his reserve.

Now, to the injuries. The most significant trend here is the 9 lower leg fractures. As you well know, we jump very soft, sandy DZ's here. If a man turns into the wind at the right time and handles his canopy properly, there is little or no need for lower leg fractures. However, we find that the majority of these leg fractures resulted from competition-type landings. I personally saw one man break his leg running downwind with a hard slip on and reaching for the center of the target with his legs. The break was not even worth it for as I remember it, he was somewhere around twenty-meters from the center! The ankles and foot bone fractures are largely attributable to inadequate bracing of the ankles because of the type of boot we wear. We definitely feel that the Paratrooper boot with the thick sole is not the answer to proper ankle bracing when it comes to competition work. The Army Parachute Team is now swithcing to a fabulous French jump boot which does provide this type of bracing and those of us who are already jumping them think they are wonderful. Extremely light, they are also easy on the pocket book - \$18.00 in France. I don't know of anyone handling them in the U.S. as yet. It would be noteworthy to say that when the thick soles on the jump boots get run down on one side, it's time for a resoling. a factor in two of the ankle breaks because the foot was not planted firmly on the ground. The ankle was permitted to turn just enough to break because of the run-down sole. I have to admit to one of the bad ankle sprains (sustained last month) because of a run-down sole on my left boot. I'm just now getting over it.

I'm saving two of the leg breaks for a special paragraph. Both of these occurred at night and both men were riding 7-gore TUs, 1.1 oz. canopies. This modification is too hot for still air night jumps. Both men impacted very hard and because the night was pitch black, were not able to select the exact spot they wished to land. One of the men hit on a very slight slope and the twisting landing caused the break. The DZSO made the comment that "although you couldn't see them landing, you could sure hear them." We recommend that night jumpers use lesser modifications.

A comment on the remark "185 jump days." Obviously, we did not jump every day. With three clubs and the Army Team jumping on any given day, that gives us a total of 4 jump days for the effort. A comment on the 148 jumpers. This is an average figure of club members participating on the DZ. I would say that the figure of 250 members training during this period would be more proper.

Now, in order to give you a breakdown of club figures, here is what Fort Bragg activities look like:

1,052

US ARMY PARACHUTE TEAM:

Total number of parachute jumps	2,618
(Delayed falls 2,556)	
(Static lines 62)	
Total number of jump days	85
Total number of jumpers participating	18
Malfunctions	5
Injuries (hospitalized)	2

XVIII AIRBORNE CORPS SPORT PARACHUTE CLUB:

Total	number	of	parachute	jumps	
(Delayed	fal	Lls	820)	
(Static 1	line	es	820) 232)	

Total number of jump days Total number of jumpers participating Malfunctions Injuries (hospitalized) 82nd AIRBORNE DIVISION SPORT PARACHUTE CLUB:	30 145 5 4	
Total number of parachute jumps	1,100	
(Delayed falls 1,045) (Static lines 55)	fine of the billion of the	
Total number of jump days Total number of jumpers participating	26 117	
Malfunctions Injuries (hospitalized)		
SPECIAL WARFARE CENTER SPORT PARACHUTE CLUB:		
Total number of parachute jumps (Delayed falls 736) (Static lines 119)	855 101 100 100 100 100 100 100 100 100 100	
Total number of jump days Total number of jumpers participating	37 101	
Malfunctions Injuries (hospitalized)	which is $\frac{1}{2}$ which collection $\frac{1}{3}$ and second $\frac{1}{3}$	
ALL AMERICAN CUP SPORT PARACHUTE MEET (April):		
Total number of parachute jumps (All delayed falls)	818	
Total number of jump days Total number of jumpers participating	5 88	
Malfunctions Injuries (hospitalized)	1 2	

Having recapped all of this, I would like to now make some remarks about our program here. I'm not only speaking as the Post Sport Parachute Safety Officer but also as PCA Area Safety Officer #60.

As you well know, Army Regulation 95-19 governs our parachuting. In addition, Fort Bragg has its own safety circular and SOPs. When a violation is reported by the DZSO, we ask the club safety officers to first take their action or make recommendations to me. If they decline to take action then I do so. My action usually results in a grounding of a minimum of 30-days. We have only had to take grounding action on three men during the past six months and that has been because, as jumpmasters, they jumped against the DZSOs ground signal not to jump. I can say, emphatically, we do not have intentional low pull problems here. The sport jumpers all know that it will result in immediate grounding. And here, I would like to give you a comment on low pulling.

We (the Army Team) were giving a demonstration recently at Suffolk County Air Force Base in New York. A civilian jumper, who is an old and good friend of mine, happened to be there. For obvious reasons, I will not give his name. Wind was fairly gusty and the DZ was a small patch of grass between the runways. _____ asked me at what altitude we pulled. When I told him 2,200 he looked at me like I was crazy and made the remark, "on days like this I like to bang in around a thousand feet. That way I'm not in the air too long." This is fine for circus jumpers, I guess (which we are not) but by my calculations if he had a complete malfunction at terminal velocity at 1,000 feet, he would only have 5.8 seconds to recite the Lord's Prayer.

There has never occurred here, as a result of sport parachuting, a fatality. God willing

and safety officer's watching carefully, there will never be. Proper training, proper methods, good, stable aircraft and the world's finest pilots have given us an enviable record of safety. Sure, we have our share of the malfunctions and the injuries. We also catch a guy on violations occasionally. But — we analyze the malfunctions and issue corrective measure reports on them. We watch the significant trends in injuries and have the club safety and training officers stress the points during training lectures. And we ground, but fast, the violators.

The United States Army wants to be a good citizen in sport parachuting. As you know, we are working hard to do everything possible to hold better and bigger meets with our civilian brother-parachutists. If the competitive spirit that Army parachutists display could be misconstrued as "poor sportsmanship" by some circles, may I add that I feel it is because we conduct our parachuting program in the same fashion that we run a unit — by regulations. A man goes to the DZ to jump, to compete, to enjoy good fellowship. He doesn't need alcohol and he doesn't need 1,000 foot pulls to get any kicks from the game. Here at Fort Bragg, he's lucky if there are even spectators to watch him. Can you blame him, if on occasion he raises up in all his wrath and strikes back at people who point at him and say, "Oh, you're one of those."

Well, I don't know how much (if any) of this has interested you for publication. I do believe that ASOs should keep a close watch over their flock and try and compile similar figures such as those I've given here. If you want, I can send you a sample of the reporting forms we use for possible duplication. They aren't the final answer but they help me keep the records straight.

PCA is sincerely grateful to Capt. Perry, the Army Team, and the Fort Bragg Clubs which compiled the necessary data for the above report. The report was voluntary on the part of the Army group and we bring this out because it has sometimes been said that PCA favors the Army. The reason that we do not print such studies from Navy, Air Force, or major civilian groups is that no reports of this type have been received. If we had them they would most certainly be published. Actually, we feel, with their zealous interest in the sport and their desire to assist everyone, the Army favors PCA, rather than the reverse! It's a good report from which we can all learn something.

WHAT'S NEW?: Credit is being asked by the Jackson Sport Parachute Club, Michigan, for the first baton pass made in the state. Messrs. Ed Green and Doug Dailey, from a Stinson v-77 at 7800 feet, during the first 8 seconds, made the pass over the B.D.Maule Airport at Napoleon in Jackson County at 1:15 PM, 23 April 1961. Any counter claims?

The price for PCA's STCs has been reduced to \$5.00 each. Purpose is to make them more available to those who need same. For details on STCs, see PARACHUTIST No. 6, June, 161.

We have printed up all the international parachuting records which will be sent to each member during Sept. This should tell everyone what they're up against and from our first reading, no reasons exist for the US not to easily take every record away from the Iron Curtain countries as soon as the necessary barographs become available. It certainly seems odd being denied records over the lack of a few measly barographs!

The 1961 Spring-Summer (cut-off date August 1st) roster of members, clubs, safety officers, and directors has finally been proofread and put to bed in the printers. Publication of these lists will also be made in the latter part of September ... so hold on just a little longer.

Sincerely yours,
PARACHUTE CLUB OF AMERICA

Parachutist

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