

For Want of a Nail!

Report on a Fatal Parachute Accident

14 Oct 16 at X35

Summary:

At 1648R on 14 October 2016, while acting as a jumpmaster, Sergeant of the Guard Dmytro Zinchenko, a Ukrainian national, was fatally injured when his reserve parachute inadvertently deployed within the aircraft.

The aircraft, a Cessna C-208 Caravan was flying at 2000 feet AGL while Sergeant Dmytro Zinchenko was dispatching four jumpers.

Apparently, the 4th jumper's static line engaged Sergeant Dmytro Zinchenko's Reserve Ripcord Handle, opening the container and allowing the reserve pilot chute and canopy to eject from the aircraft. The rapidly deploying reserve canopy pulled Sergeant Dmytro Zinchenko through the side of the aircraft and destroyed the integrity of the reserve suspension line system.

Sergeant Dmytro Zinchenko fell to the ground with the left half of the reserve suspension lines torn from the harness. He was inert during the fall and probably expired on exit.

Marion County Fire/Rescue paramedics pronounced him dead at the scene.



Sergeant of the Guard Dmytro Zinchenko, Jumpmaster

Credit: The European Paratroopers Association website

In this photo Sergeant of the Guard Dmytro Zinchenko's Main Parachute, is an MC1-1D with a SLCP Reserve Parachute, the same type of equipment that he was using at the time of the incident.

Background:

The National Parachute Test Center, Inc.* (NPTC), was established on the Dunnellon/Marion County airport in 1988. It has conducted several Primary Airborne Courses (PAC) per year, for the past 6 years. All of the instruction is on the use of the MC1-1D with a SLCP Reserve Parachute.

NPTC uses a Cessna 180 for the initial 3 jumps and then a C-47 or SkyVan for the final 3 jumps of the course.

When the C-47 or SkyVan arrives, NPTC invites qualified jumpers, (Straphangers), to jump the large aircraft.

In 2013 the Canadian Jumpers Parachute Group** (CJPG), approached NPTC requesting permission to bring foreign jumpmasters to the NPTC events for the purpose of issuing Friendship Wings. NPTC and CJPG signed a contract to allow this commencing 1 January 2014. (A Jumper can qualify for jump wings of the nation that provides the jumpmaster.)

CJPG is responsible for vetting the guest jumpmasters. Sergeant Zinchenko was one of these. There is no doubt he was well qualified.

* For additional information on NPTC see: < <http://www.nationalpara.com/> >

**The CJPG's website is only open to members. For a list of the principles, see attachment 1 "CJPG's leadership."

The Participants:

Robert A Mathews, Maj USMC Ret, owner/operator of NPTC and Drop Zone Safety Officer, (DZSO);
For additional information on Major Mathews see: <http://www.nationalpara.com/>
Contact at: [REDACTED] < [REDACTED] >

Duane Linford, Founder and titular head of CJPG; see attachment 1 "CJPG's leadership."
Contact at: [REDACTED] < [REDACTED] >

Juan Arango, Safety; For additional information on Juan Arango see: <
<http://www.skydivepalatka.com/> >
Contact at: [REDACTED] < [REDACTED] >

Sergeant of the Guard Dmytro Zinchenko, Jumpmaster, (J/M);
Jumpmaster Zinchenko was a Member of the Board and a Master Instructor at the European
Paratroopers Association. At the time of the incident, he had 147 jumps, which is significant number
for a military parachutist.

For additional information on Dmytro Zinchenko see:
< <http://www.europeanparatroopers.org/news/latest-news/584-in-memori.html> >
&
< <http://www.europeanparatroopers.org/training/training-center/instructors> >

The equipment:

The Aircraft: a Cessna 208 Caravan flying at 2000 feet and 80 kn; for information on this aircraft see:
< https://en.wikipedia.org/wiki/Cessna_208_Caravan >

The Main Parachute: an MC1-1D, the primary low altitude assault parachute for the US military and
other countries for many years, now being replaced by the MC-6. For additional information on MC1-
1D see TM 10-1670-292-23&P

The Reserve Parachute: a T-10R Soft Loop Center Pull, Modified Improved Reserve Parachute
System (SLCP) the primary reserve parachute utilized by the US military and other countries for the
past 10 years, it is being replaced by the T-11R. For additional information on SLCP see TM 10-1670-
292-23&P

<http://www.europeanparatroopers.org/news/latest-news/584-in-memori.html>

<http://www.europeanparatroopers.org/training/training-center/instructors>

A Typical NPTC Airborne Operation:

On a typical NPTC Airborne Operation, months in advance, NPTC arranges for a large aircraft. i.e. C-47 or SkyVan

CJPG coordinates with foreign jumpmasters, vets their experience and arranges travel to NPTC.

NPTC solicits students for its Primary Airborne Course and Straphangers* to jump the large aircraft.

The PAC starts at 0800 on a Tuesday with the students making one jump on Wednesday and 2 jumps on Thursday from a Cessna, concentrating on canopy control.

On Friday the students arrive at 0700 for a short refresher on what was covered in the past 3 days.

Straphangers and Jumpmasters arrive at 0800 and parachutes are issued to those that need them.

The large aircraft arrives by 0900 and is prepped for jumping, i.e. door removed, sharp edges taped, static line anchor cable inspected.

The DZSO calls a meeting of the aircrew, the Jumpmasters, US and foreign, EMTs and several administrative personnel. . Weather is covered as well as, communications, planned operations, the flight path, exit point and emergencies of the aircraft and jumpers.

By 1000 the 1st Chalk** of Straphangers is geared up, their Jumpmaster Personal Inspection (JMPI), completed and are passing through Manifest Control.

It should be noted, that the Jumpmasters, while they have their JMPI completed, do not pass through Manifest Control. (This will be changed)

Following the 1st Chalk, the Students gear up, are JMPIed and pass through Manifest Control.

Additional Chalks, as many as 5 or 6 follow the above procedure until all the parachutes are expended. Chalks for the C- 47 usually consist of 18 jumpers, a Jumpmaster and a Safety. The jumpers are usually dispatched in a Stick*** of 9.

*Straphangers are jumpers who are already qualified and have jumped a round steerable parachute within the past 2 years. They do not require training.

** A Chalk is the group of jumpers boarding an aircraft for a single flight.

*** A Stick is a group of jumpers exiting the aircraft on a single pass.

The Day of the Incident:

The night before the C-47's planned arrival we were advised that it had completed a post maintenance test flight and had a Chip Light. An illuminated Chip Light indicates that there are metallic particles in the bottom of the oil pan. This can be trivial or extremely serious. Unfortunately, their maintenance personnel would not be able to assess the exact condition of the aircraft for a couple of days.

Friday morning we advised the 111 jumpers on our manifest roll, due to the condition of the aircraft, that there would be no C-47 jumps this weekend.

Some of the jumpers opted to jump the Cessna while several others simply left.

Attempts were made to arrange for another large aircraft, but SkyVan was not available.

Skydive Palatka was called to see if their Caravan was available. It was and we were advised that it would be set up for static line airborne jumping. Additionally, Juan Arango, Skydive Palatka's instructor and jumpmaster was on the field. He is familiar with the procedures for the Caravan, as he has jumped it himself.

When the Caravan arrived Juan was asked to gather up the Jumpmasters, take them to the Caravan and instruct them on the procedures used to static line that aircraft.

Because the Caravan was much smaller than the C-47, the Chalks were reduced to 8 Jumpers, Jumpmaster and Safety. The Sticks were reduced to 4 Jumpers.

The night before, in anticipation of jumpmastering the C-47, Jumpmaster Zinchenko was issued an MC1-1D Main Parachute and SLCP Reserve Parachute. (The same equipment he is wearing in the photo above).

Upon boarding the Caravan, Jumpmaster Zinchenko elected not to hook up the Static Line of his own MC1-1D Main Parachute. When questioned by Safety, Juan Arango, Jumpmaster Zinchenko replied "I am not going to jump, so I do not have to".

The procedure for Caravan exits required the first two jumpers to sit in the door, with the second two of the Stick sitting on the floor close behind the first two jumpers.

The 1st 5 Chalks with 10 Sticks were uneventful. Although a video taken on the 1st Chalk showed Jumpmaster Zinchenko having some difficulty controlling the static lines of the 1st 4 jumpers.

On Chalks 6, the 1st Stick was dispatched uneventfully.

In all these Sticks, the Safety, Juan Arango, was controlling the static lines of jumpers 3 and 4.

With jumpers 1 and 2, of Chalk 6, Stick 2, seated in the door, jumpers 3 and 4 moved up close behind them. This allowed a significant amount of slack in their Static Lines that the Safety was controlling.

It was observed by the Safety, Juan Arango that after the 3rd jumper exited it appeared that the 4th jumper was hesitating and Jumpmaster Zinchenko leaned forward towards him.

As the 4th jumper exited, the Safety noticed a flash of white as Zinchenko's 60-inch reserve pilot chute sprung into the slipstream propelled by a 35-lb spring. It is speculated that his center-mounted Reserve Ripcord Handle was snagged by jumper 4's Static Line or Belly Band.

Rather than follow his Reserve out the door, Zinchenko elected to pull it back in. Unsuccessful, he was dragged through the door frame, destroying the window and tearing the aluminum siding.

It was observed from the ground that on the exit signal, jumpers 1 and 2 exited with about 2 seconds between them, jumper 3 followed in about 3 seconds. There was an approximate 5 second delay between 3 and 4. Jumper 4 was followed immediately by a 5th jumper, the Jumpmaster Zinchenko.

While it was immediately apparent that he had a streaming malfunction, it was not known that it was his Reserve in malfunction and not his Main Parachute.

Jumpmaster Zinchenko fell to the ground, beneath his streaming reserve canopy, back-to-earth, in a stable spread-eagle position, inert. There was no observed motion of his hands or feet. He was, at the least unconscious, and most probably had already expired.

NPTC's EMTs and Paramedic were on the scene immediately while 911 was called.

Within 10 minutes the Marion County Rescue Squad's Paramedics arrived and Sergeant of the Guard Dmytro Zinchenko was pronounced dead at the scene.

Conclusion:

The cause of this accident was Jumpmaster Zinchenko's failure to guard his Reserve Ripcord Handle.

The failure to guard the Reserve Ripcord Handle was compounded by Jumpmaster Zinchenko's failure to exit the aircraft immediately.

Lessons Learned or how to Replace the Nail:

- 1. NPTC has vociferously instructed all Students, Jumpers, and Jumpmasters to guard their Reserve Ripcord at all times and this accident will only emphasize that fact. From the time their JMPI is completed until they exit the aircraft, Jumpers must guard the Reserve Ripcord Handle as though their life depended on it. For it does!**
- 2. Jumpmasters and Safeties in smaller aircraft must use Crewmen Emergency Parachutes and not Airborne Equipment with chest Reserves.**
- 3. In any aircraft where the jumper is required to move from a sitting position to the door, a Static Line Anchor Cable running the length of the cabin must be utilized.**
- 4. Any Jumpmaster, Safety or Jumper utilizing Airborne Equipment must have their Static Line hooked to the Static Line Anchor Cable when they are in proximity of an open door.**
- 5. All personnel, Jumpmasters, Safeties, Jumpers, Students and Observers, must pass through Manifest Control.**

This report is submitted by:

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Attachment 1, CJPG's leadership:

Duane Linford, Founder and titular head of CJPG

Contact at: [REDACTED]

LTC David Hamilton, Executive Board

Contact at: [REDACTED]

Captain Brad Krewench, Executive Board

Contact at: [REDACTED]

SSG David Munoz, Executive Board

Contact at: [REDACTED]

1SG Carl Cliff Rittenhouse, Executive Board

Contact at: [REDACTED]

I don't know that it is necessary to comment that CJPG receives a "royalty" . As this doc will become public record it's best not to open to the scrutiny of other agencies....

Also point 1 in your lessons learned should indicate that reserve ripcord handle protection is and always has been vehemently emphasized at all operations and will continue to be both on the ground and in aircraft.