

2019 CSPA Safety Management System | Système de gestion de la sécurité 2019

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Tandem AIM Reports | Les rapports AID tandem

Accident / Incident/Malfunction	Trend	Cause	Proposed Corrective Action From AIM Report	Action Initiated by:
Accident	Exit	Shoulder dislocation shortly after exit.	Review passengers completed waiver for any pre-existing conditions. Ask passengers if they have previous medical conditions during registration. Have passengers demonstrate the ability to move into the freefall position during ground training.	Manifest, Tandem Instructors
Accident	Deployment	Canopy deployed before line stretch. Hard opening. Ripped bottom skin of one cell. Started to spin. Initiated EPs and landed safely under reserve. Both passenger and instructor sustained musculoskeletal injury to necks.	Packing method reviewed with packers. Packer instructed to double stow closing loops. Ensure proper retaining bands used in accordance with manufacturer's instructions.	Tandem Instructors, Packers
Accident	Landing	Tandem passenger lifted legs, but put them down at the last second before landing. Ankle injury.	Advise passengers of potential hazards from not fully lifting legs, in advance of jump. Have passenger demonstrate prior to jump and ensure proper technique, if unable to demonstrate the ability to lift legs do not take on jump. Technique should also be practiced under canopy prior to 1500 feet.	Tandem Instructors
Accident	Landing	Winds switched on final, canopy didn't recover, flared harder, but still nothing. Instructor attempted to take majority of the impact. Passenger broke tailbone. Instructor sprained knee and ankle.	Review of procedures for landings in downwind/crosswind/turbulent conditions. When dealing with shifting winds on final approach, flare earlier.	Tandem Instructors
Accident	Landing	On final approach, instructor did a quarter turn a little late, flared but parachute didn't have time to recover. Hard landing. Passenger fractured lumbar vertebrae.	Review of procedures for landing patterns. Turn onto final with enough time to ensure canopy has time to return to full flight.	Tandem Instructors
Accident	Landing	Passenger fractured ankle while sliding in for landing.	Advise passengers of potential hazards from not fully lifting legs, in advance of jump. Have passenger demonstrate prior to jump and ensure proper technique, if unable to demonstrate the ability to lift legs do not take on jump. Technique should also be practiced under canopy prior to 1500 feet.	Tandem Instructors

Accident	Landing	Upon opening of parachute, instructor was unable to disconnect the connections at the hips. Student didn't get legs high enough on landing, nor did they assist with flaring. Both lower legs extended out resulting in knees being over extended outwards. Flare was not properly followed through with.	Check gear prior to boarding aircraft. Ensure passenger is standing on the feet of the tandem master while attempting to disconnect the hip connectors. Flaring technique should also be practiced under canopy prior to 1500 feet.	Tandem Instructors
Accident	Landing	Light winds on landing resulted in a faster downwind landing. Learned after the fact that passenger broke their lower vertebrae.	Winds were variable in direction, but try and land into wind to reduce speed and change for injury. In addition, adjust the flare height to wind conditions.	Tandem Instructors
Accident	Landing	On landing, passenger failed to raise their feet high enough and caught their ankle, resulting in a fracture.	Advise passengers of potential hazards from not fully lifting legs, in advance of jump. Have passenger demonstrate prior to jump and ensure proper technique, if unable to demonstrate the ability to lift legs do not take on jump. Technique should also be practiced under canopy prior to 1500 feet.	Tandem Instructors
Accident	Landing	Tandem passenger lifted legs, but put them down at the last second before landing. Ankle injury.	Advise passengers of potential hazards from not fully lifting legs, in advance of jump. Have passenger demonstrate prior to jump and ensure proper technique, if unable to demonstrate the ability to lift legs do not take on jump. Technique should also be practiced under canopy prior to 1500 feet.	Tandem Instructors
Accident	Landing	Tandem passenger lifted legs, but put them down at the last second before landing. Ankle injury.	Advise passengers of potential hazards from not fully lifting legs, in advance of jump. Have passenger demonstrate prior to jump and ensure proper technique, if unable to demonstrate the ability to lift legs do not take on jump. Technique should also be practiced under canopy prior to 1500 feet.	Tandem Instructors
Accident	Landing	Winds picked up and became turbulent on landing. Flare wasn't sufficient and resulted in the passenger sustaining lower back injury.	Ensure flare speed and height is correct for wind conditions.	Tandem Instructors
Accident	Landing	Tandem passenger lifted legs, but put them down at the last second before landing. Ankle injury.	Advise passengers of potential hazards from not fully lifting legs, in advance of jump. Have passenger demonstrate prior to jump and ensure proper technique, if unable to demonstrate the ability to lift legs do not take on jump. Technique should also be practiced under canopy prior to 1500 feet.	Tandem Instructors

Accident	Landing	Tandem passenger lifted legs, but put them down at the last second before landing. Ankle injury.	Advise passengers of potential hazards from not fully lifting legs, in advance of jump. Have passenger demonstrate prior to jump and ensure proper technique, if unable to demonstrate the ability to lift legs do not take on jump. Technique should also be practiced under canopy prior to 1500 feet.	Tandem Instructors
Fatality Incident	Landing Exit	Information not reported to CSPA. Before door opened, student started getting extremely sick/nauseous in the plane. We landed the plane and did not jump. Student reported he had previous medical condition.	Review passengers completed waiver for noted pre-existing conditions. Ask passengers if they have previous medical conditions during registration.	Manifest, Tandem Instructors
Incident	Landing	Canopy hit turbulence on final and stalled. Hard landing but no injuries.	From UPT - when using the sink serge approach canopy has potential to change its flight characteristics causing a feeling of loss of lift. Ensure flare occurs at right height.	Tandem Instructors
Malfunction	Deployment	Line twists. Initiated EPs and landed safely under reserve.	Stop any turns prior to deploying the main canopy. ensure proper body position is practiced and reviewed in ground training.	Tandem Instructors
Malfunction	Deployment	Canopy failed flight control check. Initiated EPs and landed safely under reserve.	Have equipment inspected by a rigger for serviceability, ensure packer up on correct packing sequence and procedures	Tandem Instructors, Riggers and Packers
Malfunction	Deployment	Tension knot. Initiated EPs and landed safely under reserve.	Review packing procedures. Ensure packers are removing twists from steering lines.	Tandem Instructors, Riggers and Packers
Malfunction	Deployment	Line twists. Initiated EPs and landed safely under reserve.	Stop any turns prior to deploying the main canopy. ensure proper body position is practiced and reviewed in ground training.	Tandem Instructors

Student AIM Reports | Les rapports AID étudiant

Accident / Incident/Malfunction	Trend	Cause	Proposed Corrective Action	Action Initiated by:
Accident	Deployment	Student had a hard opening, resulting in broken lines. Sustained whiplash. Student landed off the dropzone, hard landing.	Review and practice body position for deployment in ground training and jump plan.	JM, SSI, PFFI
Accident	Landing	Student did a good flare but didn't keep feet and knees together. Rolled right ankle which resulted in a fracture.	Review landing techniques and emphasis on keeping feet and knees together and ensuring that the flare is initiated at the correct altitude for a proper landing.	GCI, SSI, PFFI, JM
Accident	Landing	On final, winds picked up and student flared too high and uneven. Fractured ankle on impact.	Review flaring techniques with emphasis on flaring symmetrically. Review procedures and techniques with GCI to ensure accurate coaching and currency.	GCI, SSI, PFFI, JM
Accident	Landing	Student didn't finish their flare. Sustained a fractured ankle.	Review flaring techniques with emphasis on a full flare. Review procedures and techniques with GCI to ensure accurate coaching and currency.	GCI, SSI, PFFI, JM
Accident	Landing	Student flared when instructed, but not a full flare. Sustained injuries to back on landing.	Review flaring techniques with emphasis on a full flare. Review procedures and techniques with GCI to ensure accurate coaching and currency.	GCI, SSI, PFFI, JM
Incident	Landing	On deployment, the pilot chute was over the nose of the canopy. Student couldn't get penetration when facing into wind and drifted backwards. Student landed off the dropzone in trees. No injuries.	Ensure students are jumping within recommended wind limits and canopies are suitable to their body weight. Review procedures and techniques with GCI to ensure accurate coaching and currency.	JM, SSI, PFFI, GCI
Malfunction	Deployment	Student suffered shoulder pain on exit and was unable to extract pilot chute. AAD fired before reserve was deployed. Student landed safely off the dropzone.	Review emergency procedures for freefall emergencies. In addition, review of medical history in their waiver prior to commencing training.	SSI, JM, PFFI
Malfunction	Deployment	Student didn't deploy their main and flipped onto her back. AAD fired, deployed the reserve, at which point she deployed her main. Two canopies out. Landed safely.	Review EPs for freefall emergencies. Review of air awareness skills and responsibility to maintain altitude awareness at all times by student.	SSI, JM, PFFI

Experienced AIM Reports | Les rapports AID des parachutistes d'expérience

Accident / Incident/Malfunction	Trend	Cause	Proposed Corrective Action	Action Initiated by:
Accident	Deployment	Hard opening, lost helmet after chest strap impact. Landed safely but reportedly fractured two vertebrae.	Review packing procedures and body position during deployment sequence.	Jumper, Packer, Rigger,
Accident	Landing	Landed on tractor rut. Twisted ankle. Also flared high.	Review landing patterns and flare techniques. Ensure jumpers walk the landing area prior to jumping at the dropzone and are aware of potential hazards.	Jumper, DZ Safety Officer
Accident	Landing	Did a low turn when landing off dropzone to face into wind, flared and over-extended ankle.	Review landing patterns, proper altitudes and flat turns.	Jumper, C2
Accident	Landing	Off dropzone landing, ran out the landing but the ground was uneven. Fractured ankle.	Review flaring techniques, specifically ensuring that flare is sufficient to ensure minimal speed prior to landing (two-stage).	Jumper, C2
Accident	Landing	Popped up on flare; subconsciously lifted left toggle. Landed mostly on tail bone and went to hospital in ambulance.	Review flaring techniques and the importance of flaring symmetrically.	Jumper, C2
Accident	Landing	Twisted knee in a rut on landing.	Ensure jumpers walk the landing area prior to jumping at the dropzone and are aware of potential hazards.	Jumper, C2, DZ Safety Officer
Accident	Landing	Fractured ankle on landing when foot got stuck in a hole.	Ensure jumpers walk the landing area prior to jumping at the dropzone and are aware of potential hazards.	Jumper, C2, DZ Safety Officer
Accident	Landing	Jumper let go of the right toggle to turn on camera, toggle then went up into the lines and got entangled. Unable to fix it and tried to use toggles to flare anyway. Right toggle was stuck and so jumper turned into the ground. Resulted in fractured vertebrae.	Reviewed mistakes with jumper, including letting go of toggle, trying to flare with a stuck toggle. Also emphasis on maintaining altitude awareness at all times. Additional training with an experienced videographer is recommended. Review of safety procedures specific to camera use.	Jumper, C2, Videographers
Accident	Landing	Jumper flared too late and sustained a fractured ankle under a high performance canopy.	Review flaring techniques.	Jumper, C2
Accident	Landing	Jumper flared too early and sprained ankle.	Review flaring techniques.	Jumper, C2
Accident	Landing	On final, wind gusted and changed direction. Downwind landing resulted with a sprained ankle.	Review landing procedures for downwind landings.	Jumper, C2
Accident	Landing	Low turn on a high performance landing, attempt to maneuver out of it resulted in a stalled canopy. Jumper injured upon impact.	Review landing procedures for high performance landings.	Jumper, C2, C3 Canopy Piloting
Accident	Landing	Landed downwind of treeline, hit turbulence and had a hard landing. Injuries unknown.	Review landing procedures for downwind landings.	Jumper, C2
Accident	Landing	Low turn on a high performance landing, unable to fully recover canopy before impact.	High performance turns not recommended on a wingsuit canopy. Review recovery drills. Ensure jumper is properly brief and trained on equipment.	Jumper, C2, C3 Canopy Piloting

Accident	Landing	Landed off the dropzone, downwind in a corn field. Sprained ankle.	Importance of penetration tests under canopy and staying into wind on final, even when landing off the dropzone.	Jumper, C2
Accident/Malfunction	Deployment	Main parachute malfunctioned. Reserve also malfunctioned. Jumper sustained injuries to neck and back.	Review of Emergency Procedures and thorough gear checks by jumper, packers, and rigger.	Jumper, C2, Packer, Rigger
Accident/Malfunction	Landing	Horseshoe malfunction on exit, possible reserve entanglement and double malfunction. Jumper sustained injuries on landing.	Ensure proper care when exiting and protect all handles and pins from the doors. Review EPs.	Jumper, C2, Packer, Rigger
Fatality	Landing	Suspected low pull after an unsuccessful wingsuit jump. Speculation is the AAD was not turned on.	All jumpers should receive pin checks and confirmation of AADs turned on prior to boarding aircraft. Jumpers should be aware and educated on dropzone specific requirements regarding the use of AADs. Review of opening procedures. In addition, review of air awareness skills and responsibility to maintain altitude awareness at all times.	Jumper, C3 Wingsuit, DZO, DZ Safety Officer
Incident	Deployment	No pull. On third attempt jumper deployed main at the same time the AAD fired. Two out, front to back.	Review EPs, specifically two tries with no pull. Review of air awareness skills and responsibility to maintain altitude awareness at all times.	Jumper, C2
Incident	Landing	Landed off in wet field.	Review landing patterns and off dropzone procedures.	Jumper, C2
Malfunction	Deployment	Brake fire. Initiated EPs and landed safely under reserve.	Review packing procedures.	All Jumpers in consult with a Rigger, Packers
Malfunction	Deployment	Hard opening, broken lines. Initiated EPs and landed safely under reserve.	Ensure stable body position on deployment.	Jumper, C2
Malfunction	Deployment	Line twists. Removable slider was not mounted correctly. Initiated EPs and landed safely under reserve.	Review packing procedures and body position during deployment sequence.	All Jumpers in consult with a Rigger, Packers, C2
Malfunction	Deployment	Line twists. Initiated EPs and landed safely under reserve.	Review packing procedures and body position during deployment sequence.	All Jumpers in consult with a Rigger, Packers, C2
Malfunction	Deployment	Pilot chute in tow. Pulled pin manually. Line twists. Initiated EPs and landed safely under reserve.	Review packing procedures.	All Jumpers in consult with a Rigger, Packers, C2
Malfunction	Deployment	Line twists. Initiated EPs and landed safely under reserve.	Review packing procedures and body position during deployment sequence.	All Jumpers in consult with a Rigger, Packers, C2
Malfunction	Deployment	Toggle line wrapped around soft link. Toggle couldn't release. Initiated EPs and landed safely under reserve.	Review packing procedures, specifically ensuring that slink loops are tacked inside riser.	All Jumpers in consult with a Rigger, Packers
Malfunction	Deployment	Line twists. Initiated EPs and landed safely under reserve.	Review packing procedures and body position during deployment sequence.	All Jumpers in consult with a Rigger, Packers, C2
Malfunction	Deployment	Line twists. Initiated EPs and landed safely under reserve.	Review packing procedures and body position during deployment sequence.	All Jumpers in consult with a Rigger, Packers, C2
Malfunction	Deployment	Toggle fire. Initiated EPs and landed safely under reserve.	Review packing procedures.	All Jumpers in consult with a Rigger, Packers
Malfunction	Deployment	Line twists. Initiated EPs and landed safely under reserve.	Review packing procedures and body position during deployment sequence.	All Jumpers in consult with a Rigger, Packers, C2

Aircraft AIM Reports | Les rapports AID d'avion

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