Factual Report – Attachment 11 Loading SOPs

OPERATIONAL FACTORS

ERA18MA099

NYON S.O.P. rev 5, 11/3/17

Helicopter Ready to Fly Checklist

- 1. Doors and door seals removed as needed depending on weather.
- 2. All loose items have been removed from the helicopter. All Liberty essential material will be placed in the assigned plastic bin and kept with the doors and cushions in the hangar. Nothing is to be stored in the aft cargo except for pilots gear and NYON essential equipment.
- 3. Aircraft will have 4 tethers in the back, 1 up front with 5 NYON branded headsets
- 4. If/when repoing the pilot will ensure that EVERYTHING is in the aft baggage compartment or secured to ensure departure is impossible.
- 5. All seatbelt female ends will be pulled as tightly as possible and will have the excess tied in a knot. This will ensure that when adventure seats climb out and re-buckle their seatbelts the bulk of the weight is as close to the seat as possible and not able to flap in the wind. In the event that an outside seat removes their seatbelt it is not able to fly out the door as far and should hopefully minimize damage to the aircraft.

NYON loading process

- 1. Passengers approach aircraft with CX leading the group at least 15 feet ahead.
- 2. CX hands pilot passenger manifest
 - a. Pilot notes 15 vs 30 minute flight, pilot name, N #, weights and points of interest
- 3. Pilot greets passengers. (Quick look for obvious equipment issues to fix later)

a.	Pilot using the manifest gets the passengers names and introduces themselve	S
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- 4. CX, while pilot is greeting passengers, checks aircraft to make sure all tethers and headsets are untangled and ready for loading.
- 5. CX retrieves life vests and comes back to passengers as pilot is finishing greeting
- 6. Pilot and CX put life vests on the passengers, under the harness. (Chance to quickly note equipment/harness issues)



7. Pilot and CX each double check each passengers harness and equipment, both visually and hands on. Tug, pull, touch. By whatever means to assure the following.

- i. The Harness fits properly
 - 1. All straps are as tight as necessary
 - 2. The harness is not sagging or falling off of the passengers shoulders
 - 3. There are NO zip ties being used to tighten the harness, if the harness needs to be further secured, locking carabiners can be used at the following points as necessary; Shoulder blades above the hard point, shoulder blades below the hard point and/or across the torso above the navel.
 - 4. It is the responsibility of the CX to ensure that passengers arrive at the aircraft to these standards. The pilot will have spare carabiners to adjust harnesses as needed. NO passengers will fly with zip ties on the harness.
- ii. Is the equipment ready to fly?
 - 1. All cellphones removed from cases and securely fastened in phone holder
 - 2. Cell phone holders are securely attached to the harness at the canvas webbing
 - 3. The cell phone holder has NO ZIP TIES being used as a primary securing device
 - 4. Cameras are secured by carabiners or attached through the shoulder, canvas webbing.
 - Cameras/Go Pros ARE NOT ATTACHED TO THE TETHER BY A ZIP TIE.
 - 6. Any Equipment that cannot be secured by parachute cord, lanyard, or key ring DOES NOT FLY. Spiral key rings will be used in lieu of the string that comes with smaller cameras to carry around your wrist. Nothing will be secured with ZIP TIES, the passenger will fly without the equipment or they will be sent back to CX to be properly secured. This could be the van for a mobile fixing or back to KP if more equipment/tooling needed to secure the object. You do not accept items not properly secured, it is a loss

to the passenger, a possible loss of your license and the potential loss of life on the ground if someone were to be struck

- 7. How to properly use zip ties
 - a. Zip ties are an invaluable tool used to better secure items. Zip ties are to be used as a redundancy, overtop of knots to avoid untying, around shoes to avoid the heel from lifting, as a secondary tie down in case a mount breaks. Never to be used as the sole means of securing an object to a person or tether.
- iii. Are my passengers ready to fly?
 - 1. The pilot will visually look for
 - Long untied hair (a bun or ponytail works best, no hair clips)
 - b. Shoes double knotted if possible or zip tied,
 - c. Check glasses and offer goggles if passenger is wearing contacts or no glasses. Van should be stocked.
 - d. Check for empty pockets,
 - e. All clothing straps, scarves and loose items are removed or secured
- 8. Pilot pulls out manifest slip
 - a. Identify the floor(adventure) seat passengers
- 9. THE PILOT WILL TETHER IN ALL PASSENGERS! This will ensure that this is always done to the pilot's preference. However the standard is a tight tether and tight harness before we ask the passenger to lean out. Always be aware of the slack in the harness.

10. LOADING PROCESS

- a. Pilot will have left side adventure seat sit on the floor, back of knees tight to airframe and attach tether to proper length and safety the carabiner.
- b. Adventure seat passenger takes their seat
- c. Pilot will have left side door seat sit sideways on the bench and squish into the adventure seat passenger. Pilot will reach between them and attach the tether to the proper length and safety the carabiner
- d. Pilot makes way to the right side of the aircraft to repeat the process
- e. CX now begins to attend to the loaded left side passengers
 - i. CX secures seat belt verifying that it is not tangled with any camera or headset straps
 - ii. CX places headset on passenger head
 - iii. CX attaches headset cord to shoulder carabiner
 - iv. CX places headset on passengers shoulders, around the neck

- f. CX briefs left side passengers on
 - i. Wind, effect of it on legs, shoes, headsets, cameras leaning in or out glasses etc.
 - ii. Door seats do not take seat belts off
 - iii. Floor (Adventure) seats at pilots command you can remove seat belt and secure it behind you and make your way to the floor
 - iv. Leave headset on at all times, pilot will be talking to you throughout the flight. You do not have a microphone so if you need the pilot's attention tap him/her on the shoulder or speak loudly.
 - v. After landing do not attempt to unhook yourselves, wait for the pilot and CX to assist you.
- g. Pilot finishes loading, tethering right side passengers. Same order as above.
- h. Once done pilot will begin loading of the forward seat passenger
- i. CX attends to right side passenger's seat belts and briefing, same as above.
- j. Pilot finishes loading, tethering forward passenger.
 - i. Make sure tether is attached to airframe hard point not the seat.
- k. Pilot attaches forward passenger seat belt
- 11. Pilot now double checks all passengers with CX watching
 - a. Carabiners attached and safetied
 - b. Seat belts attached and not tangled in camera straps, headset cords or each other
 - c. Passengers secured in proper seating position
 - d. Final look in cabin for any loose objects, life vests, lens caps etc.
- 12. Pilot completes final walk around.
- 13. Pilot signs the manifest, any issues encountered are noted on back of the slip and hands it back to CX.
- 14. Pilot releases the CX from the aircraft as load is completed and may point out any issues he had that may need relayed back to the harness room along with the manifest. This is done a few feet away from the aircraft and out of ear shot of the passengers.
- 15. Pilot gives final briefing to the entire flight now that they can be focused on the pilot
 - a. What they want to see
 - b. Adventure seat instructions about when to remove seat belt and moving to the floor
 - c. Floor (Adventure) seat instructions about re-buckling seat belt prior to landing
 - d. Door seat instructions to twist in seat and never remove seat belt
 - e. Pay attention to any loose objects and bring to the pilots attention if something breaks free

- f. Pay attention for inadvertent release of door seat seat belt
- g. Use of life vests
- h. Stay leaning inside for flight to the city as its at higher speed
- i. Better photos if you keep camera inside the helicopter
- j. Fire extinguisher location
- k. No smoking
- 16. Pilot starts and departs
- 17. After takeoff pilot instructs adventure seats to remove seat belts and make their way to the floor
 - a. Pilot supervises the moving from seat to floor looking for
 - i. Passenger getting tangled in seats belts or headset cords
 - ii. Passenger re-buckled the seat belt behind them
 - iii. Verify the door seat passengers DO NOT remove seat belt
- 18. Pilot throughout flight will check in on passengers and look for anything coming loose or anyone having problems. Always watch the door seat passengers seat belts
- 19. Inbound pilot will instruct adventure seat passengers to get back in the their seats and re-buckle seat belts
- 20. After landing reinforce to the passengers to remain seated and do not attempt to unhook or exit the aircraft
- 21. After off- loading, reconfigure the aircraft back to a cleaned up and ready to fly state
 - a. Headsets untangled and hanging on hooks
 - b. Seats belts untangled
 - c. Tethers laid out in proper starting positions

NYON S.O.P. rev 6, 11/10/17

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- 3. Pilot greets passengers. (Quick look for obvious equipment issues to fix later)
 - a. Pilot using the manifest gets the passengers names and introduces themselves.



4. CX, while pilot is greeting passengers, checks aircraft to make sure all tethers and headsets are untangled and ready for loading.

- 5. CX retrieves life vests and comes back to passengers as pilot is finishing greeting
- 6. Pilot and CX put life vests on the passengers, under the harness. (Chance to quickly note equipment/harness issues)
- 7. Pilot and CX each double check each passengers harness and equipment, both visually and hands on. Tug, pull, touch. By whatever means to assure the following.



- i. The Harness fits properly
 - 1. All straps are as tight as necessary
 - 2. The harness is not sagging or falling off of the passengers shoulders
 - 3. There are NO zip ties being used to tighten the harness, if the harness needs to be further secured, locking carabiners can be used at the following points as necessary; Shoulder blades above the hard point, shoulder blades below the hard point and/or across the torso above the navel.
 - 4. It is the responsibility of the CX to ensure that passengers arrive at the aircraft to these standards. The pilot will have spare carabiners to adjust harnesses as needed. NO passengers will fly with zip ties on the harness.
- ii. Is the equipment ready to fly?
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- 7. How to properly use zip ties
 - a. Zip ties are an invaluable tool used to better secure items. Zip ties are to be used as a redundancy, overtop of knots to avoid untying, around shoes to avoid the heel from lifting, as a secondary tie down in case a mount breaks. Never to be used as the sole means of securing an object to a person or tether.

iii. Are my passengers ready to fly?

- 1. The pilot will visually look for
 - a. Long untied hair (a bun or ponytail works best, no hair clips)
 - b. Shoes double knotted if possible or zip tied,
 - c. Check glasses and offer goggles if passenger is wearing contacts or no glasses. Van should be stocked.
 - d. Check for empty pockets,
 - e. All clothing straps, scarves and loose items are removed or secured
- 8. Pilot pulls out manifest slip
 - a. Identify the floor(adventure) seat passengers

9. THE PILOT WILL TETHER IN ALL PASSENGERS! This will ensure that this is always done to the pilot's preference. However the standard is a tight tether and tight harness before we ask the passenger to lean out. Always be aware of the slack in the harness.

10. LOADING PROCESS

- a. Right side passengers are sent to the right following CX, left side passengers sent to the left following the pilot
- b. CX will have right side adventure seat sit on the floor, back of knees/legs tight to airframe and the right side door seat sit on their seat facing out.
- c. Pilot from the left side enters aircraft and attaches tether for floor (adventure) seat and adjusts for proper length.
 - i. Passenger leans forward, their face should just touch the vertical plane of the aircrafts door opening.
 - ii. They should not be able to get their butt out of aircraft.
- d. Pilot safeties the carabiner
- e. Pilot attaches tether for right side door seat and adjusts for proper length, same parameters as above.
- f. Pilot safeties the carabiner and exits out left side of aircraft
- g. CX now attends to right side passengers while pilot loads left side.
 - i. Gets them in their seat
 - ii. Attaches seat belt and shoulder harness, shoulder harness under the arm and no camera tether trapped under seat belt
 - iii. Places headset on head, attaches cord to harness, then places headset around neck.
 - iv. CX gives a basic safety brief on the following points
 - 1. Floor (adventure) seat passenger instructions
 - a. Proper use and when to remove seat belt after take off following pilots commands

- b. Passenger will reattach seat belt behind them before moving to the floor position
- c. Passenger will get back in their seat and reattach seat belt following pilots commands before landing
- 2. Door seat passenger instructions
 - a. Proper use of seat belt and that they WILL NOT be removing their seat belt at any point during the flight
- h. Pilot now loads left side
 - i. Has the left side floor (adventure) seat sit on the floor knees/legs tight to airframe, attaches tether and adjusts for proper length.
 - ii. Pilot safeties carabiner
 - iii. Pilot has floor seat passenger get into their seat
 - iv. Pilot has left side door seat passenger climb into their seat and face out
 - v. Pilot attaches tether and adjusts for proper length
 - vi. Pilot safeties carabiner
- i. CX now attends to right side passengers while pilot loads left side.
 - i. Gets them in their seat
 - ii. Attaches seat belt and shoulder harness, shoulder harness under the arm and no camera tether trapped under seat belt
 - iii. Places headset on head, attaches cord to harness, then places headset around neck.
 - iv. CX gives a basic safety brief on the following points
 - 1. Floor (adventure) seat passenger instructions
 - a. Proper use and when to remove seat belt after take off following pilots commands

- b. Passenger will reattach seat belt behind them before moving to the floor position
- c. Passenger will get back in their seat and reattach seat belt following pilots commands before landing
- 2. Door seat passenger instructions
 - a. Proper use of seat belt and that they WILL NOT be removing their seat belt at any point during the flight
- j. Pilot will begin loading of the forward seat passenger
 - i. Has passenger sit on the seat facing out
 - ii. Attaches tether and adjust for proper length, this can be done from the left side of aircraft or reaching across the pilot seat therefore giving the CX more room on the left side of the aircraft to finish the rear seat passengers
 - iii. Make sure tether is attached to airframe hard point not the seat.
 - iv. Pilot safeties carabiner
- k. Pilot attaches forward passenger seat belt
 - i. Use all 3 or 4 points of harness
 - ii. Right side under arm
 - iii. Adjust buckles to inboard side of aircraft
- l. CX now attends to forward seat passenger
 - i. Places headset on head, attaches cord to harness, then places headset around neck.
 - ii. CX gives a basic safety brief on the following points
 - 1. Proper use of seat belt and that they WILL NOT be removing their seat belt at any point during the flight
- 11. Pilot now double checks all passengers with CX watching
 - a. Carabiners attached and safetied

- b. Seat belts attached and not tangled in camera straps, headset cords or each other
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- d. Final look in cabin for any loose objects, life vests, lens caps etc.
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 - a. What they want to see
 - b. Adventure seat instructions about when to remove seat belt and moving to the floor
 - c. Floor (Adventure) seat instructions about re-buckling seat belt prior to landing
 - d. Door seat instructions to twist in seat and never remove seat belt
 - e. Door and floor passenger are a team and that both are responsible for making sure both have seat belts on at appropriate times
 - f. No microphones on headset so a tap or speak up to get pilots attention
 - g. Pay attention to any loose objects and bring to the pilots attention if something breaks free
 - h. Pay attention for inadvertent release of door seat seat belt
 - i. Use of life vests
 - j. Stay leaning inside for flight to the city as its at higher speed
 - k. Effects of wind on legs, arms, glasses and headsets

- Verify everyone knows where the cutters are and how to exit. Cut each others tethers or unhook each other
- m. Better photos if you keep camera inside the helicopter
- n. Fire extinguisher location
- o. No smoking
- 16. Pilot starts and departs
- 17. After takeoff pilot instructs adventure seats to remove seat belts and make their way to the floor
 - a. Pilot supervises the moving from seat to floor looking for
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- 20. After landing reinforce to the passengers to remain seated and do not attempt to unhook or exit the aircraft
- 21. After off- loading, reconfigure the aircraft back to a cleaned up and ready to fly state
 - a. Headsets untangled and hanging on hooks
 - b. Seats belts untangled
 - c. Tethers laid out in proper starting positions