

CU Boulder OISC Flight Ops Department

Clarification on and additional information regarding required Flight Briefings

Per the FOM 2.5.14 the PIC must give three crew briefings, which include an initial crew briefing, a before landing briefing, and a post flight debriefing. These briefings are the responsibility of the PIC and should contain all relevant information. Most briefings are complete with the entire crew present and should be tailored in a way which is clear and inclusive to all who participate in the mission. As there are a variety of different missions with different types of UAS, environments, weather, COAs, etc it may be confusing on what should be included in each of these briefings. This document has been made to clarify, suggest, and act as a baseline for what your briefings should include.

Initial Crew Briefing

This crew briefing is typically given to all member of the flight crew to clearly state the intentions, flight rules, duties, and foreseeable complications of the flight. The briefing should include the overall mission goal so everyone knows the objective. In this statement the PIC can discuss with the crew where the UAS intends to operate and how (ie, altitude, maneuvers, planned flight paths). It should include how the airspace is being accessed, if it's being accessed through a COA the crew members should be familiar with some of the main flight requirements stipulated under those flight rules so they effectively help the mission be completed safely. When talking about the flight rules it could be important to mention altitude limits, weather limits, airspace limits, and or distance to nearby obstruction limits if applicable that way the crew can notify the pilot if he/she is in danger of breaking them. Next the PIC should specify the different types of crew duties and their responsibilities for the mission. Lastly in the initial crew briefing any unforeseen or possible complications which could adversely effect the flight should be stated. This allows for full transparency about the possible risks associated with the mission and allows the crewmembers to be vigilant towards those possible risks. The last stamen made in the initial crew briefing is "are there any questions". This gives the open opportunity for other crewmembers to speak up and question or get clarification if needed.

A sample initial crew briefing between a two person PIC and VO crew for a common training flight is as follows: "Today I plan on flying my recurrency training flight where I will go up and preform basic UAS training maneuver with my MAVIC. This flight will be conducted under the blanket COA and will comply with the required rules. There are no TFRs, no airspace considerations and we will complete this flight in class G, the closet airport is boulder municipal which is 3 miles to the south south east, the weather is well above the minimums of 3sm visibility and 1000ft ceilings, and my notam has been filed and verified. I have confirmed you are legal to act as my VO and as my VO, I would like you to identify me any manned aircraft sound, its location, and if it's a relevant factor; any wildlife possible interferences; any by standard interferences; and other UAS in my vicinity. I would like these announcement to address interferences made in reference to the cardinal directions (NSEW). I would like you to pay special attention to the other UAS in my flight aera as there is an increased amount of activity at the model field today. Other than that, do you have any questions?"

Landing Briefing

For most initial training flights on a multirotor UAS this briefing is relatively simple and can be satisfied by simply stating “I’m landing”. Although on different types of UAS like fixed wing, airship, or helicopter a more complex landing briefing may be required in which wind, landing direction, and location need to be further specified. In short the landing briefing notifies the crew of the pilots intentions and allows the crewmembers and VO(s) to verify the landing zone is safe and prepare all other systems for landing.

A sample landing briefing for a initial UAS multirotor training flight out be “im landing, same location I took off”. Although this doesn’t merit a response from the VO the VO should observe the airspace from the current UAS position to the landing zone and check the landing zone for any abnormalities. A possible response from the VO could be “land zone is clear and normal”.

When flying fixed wing UAS a landing briefing could be more complex and stated like “landing to the north on the paved runway, winds noted right to left”.

Post Flight Debriefing

The last briefing required is the post flight debriefing. This briefing echoes a similar outline to the initial briefing in the sense that the PIC should reflect on if the flight went according to the initial plan. The post flight briefing is also the time where any abnormalities, safety concerns, crew questions, SARs, or deviations should be brought up.

A typical post flight briefing for a UAS multirotor training flight could be: “All in all this was a successful flight. We accomplished the goal of doing a recurrency flight. All prebriefed instructions were followed. There were no deviations, and no SARs are required. This was a safe and compliant flight. Do you concur and have any questions?”

Note: This document is not regulatory but following these guidelines will ensure that your briefings are safe, complete, and compliant. The required briefings are very dependent and specific to the type of UAS, difficulty level, the mission, crew familiarity, and flight conditions. Depending on each of these factors the PIC is responsible for making complete and comprehensive briefings. The examples shown in this document relate more to typical training flights but provide a good baseline and can be modified for your different missions.