IAATO Statement on the use of Unmanned Aerial Vehicles in Antarctica

The term Unmanned Aerial Vehicles (UAVs) is used for any remote piloted aircraft.

IAATO accepts the general use of UAVs provided the following criteria have been met:

- For the 15/16 season, recreational UAV flights **are not allowed in coastal areas;**
- UAV flights for scientific or commercial purposes are allowed, if conducted with the permission/authorization from a competent authority;
- UAV flights are allowed at deep field sites, including coastal areas bound by ice shelves, if conducted with the permission/authorization from a competent authority.

Members who allow UAV flights should have Standard Operating Procedures in place that are specific to their operation.

Prior to conducting the activity, the use of Unmanned Aerial Vehicles (UAVs) must be included in the operator's permit/authorization conditions (Advance Notification, Environmental Impact Assessment (EIA) and Waste Management Permit (WMP), where relevant.

In addition, for those instances where UAV flights are allowed, the meeting agreed to provide the following information as points for consideration when setting up the activity.

Points for Consideration for Operators' Standard Operating Procedures

1. Legal requirements

- The tour operator and pilot must be familiar with, and adhere to, Antarctic Treaty and National legal requirements.

2. Flight Operations and Piloting of UAVs

- All flights should be pre-approved by an authorized person/Expedition Leader (EL).
- UAV equipment should be inspected by an authorized person/EL to ensure that they meet the requirements outlined in the authorised operating procedures.
- UAVs should be of robust construction with suitable safety features for use in Antarctica. If operated over water it should have a flotation device or alternative mechanism (such as a leash) to allow for recovery if it lands in the water.
- UAV pilots should be able to demonstrate proficiency and experience in varied flying conditions.
- UAVs should not be operated in the immediate vicinity of a vessel if the vessel's radar is operational.

- Every flight should adhere to the individual Members Standard Operating Procedures and a risk assessment carried out for the activity.
- Each flight should have a pilot and an observer (except during solo expeditions).
- Preflight planning should include identifying an alternate landing area away from the launch site should the launch site become unusable. The Authorized person/EL should be made aware of the alternate landing site before the flight begins.
- A test flight should be undertaken to show the Authorized person/EL that the equipment is fit for purpose, and the pilot is proficient in its operation and use in the Antarctic.
- Each flight should begin with an airborne test of the UAV and its systems in an area away from people and wildlife. This should include testing the UAV's failsafe systems for auto-return. (It is noted that south of 70 degrees, failsafe systems may be unreliable).
- The pilot should maintain visual contact with the UAV at all times.
- The observer should maintain a lookout over the area for wildlife, people or other hazards, change in weather conditions and is responsible for monitoring signs of disturbance by wildlife.
- The observer is responsible for maintaining VHF radio contact with the other staff (Authorized person/EL/Bridge/Communications team). The pilot should not use a VHF radio while the UAV is airborne.

3. Flight restrictions

- Flights should be conducted in fair weather, with a cloud base sufficiently high that visual contact can be maintained with the UAV at all times.
- Total flight durations should not exceed 15 minutes, and the pilot must have a way to monitor the flight battery voltage at all times during the flight. (It is noted that in colder conditions flight time will be controlled by battery life).
- Flights should not be started in winds exceeding the UAV manufacturers recommended maximum and should be aborted if winds exceed 25knots.
- The maximum altitude should not exceed 300 feet (90 meters) Above Ground Level (AGL) at any time.
- The maximum distance away from the pilot should not exceed 100 meters but never beyond visual contact of the observer.

4. Environmental restrictions

- UAVs must not be flown over or near to concentrations of wildlife on shore or at sea, or over concentrations of marine mammals and flying birds.
- UAVs must not be operated over Antarctic Specially Protected Areas (ASPAs).
- UAVs must not be flown over Antarctic Specially Managed Areas (ASMAs) unless the activity is specifically allowed in the ASMA Management Plan.
- UAVs must not be used directly over designated Historic Sites and Monuments (HSMs).
- UAVs must not be used in the vicinity of scientific stations without the permission of the Base Commander.
- If any wildlife indicates disturbance, unusual behavior, or interest in the UAV, the flight should be aborted immediately.
- In the event of a crash, every effort should be made to collect all the remains and evidence of the UAV, if safe to do so.

5. Record Keeping

- A log of flights should be maintained, including location, length of flight, weather conditions, any crashes or unexpected landings.
- UAV flights must be recorded on the PVR (post-visit report).