

# Aviation Safety



## Sky Lanterns and the risk to Aviation

Safety Leaflet



**IGA 2**

## 1. Background

Sky Lanterns are increasingly being used at social occasions such as weddings and birthday parties. They are typically constructed from oiled rice paper on a bamboo frame, and contain a small candle or fuel cell composed of a waxy flammable material. When lit, the flame heats the air inside the lantern, thus lowering its density causing the lantern to rise into the air. The Sky Lantern stays airborne while the flame is hot enough to adequately heat the air, thereafter, the lantern floats back to the ground.

## 2. The Threat to Aircraft and Environment Safety

Sky lanterns vary in size and performance and when released can travel a considerable distance from the release point at unpredictable heights on prevailing winds. This unpredictability of flight could cause Sky Lanterns to become a risk to aviation through airborne engine ingestion. The level of risk associated with the release of sky lanterns is proportionate to the number and size of units released at any one time, and also to the location of the point of release.

While the risk of collision with an aircraft is small, aviation activity within the airspace of intended release needs to be considered when carrying out an assessment for the releasing of any sky lanterns, in particular when within the vicinity of an airport.

Additional to the risk to aviation, Sky Lanterns may cause the deployment of the Coastguard on false rescue missions if they are mistaken for a distress signal (flare). They may also pose a risk such as a fire hazard to land and/or property or an ingestion hazard to animals.

Any person who wishes to use such devices should be aware that the Irish Aviation Authority (IAA) does NOT endorse or encourage the use of Sky Lanterns. Any person(s) responsible for launching Sky Lanterns must follow the rules set out in this Safety Leaflet in order to ensure the safety of air navigation and minimise the possibility of an unnecessary coast guard alert. Additionally, any person(s) choosing to launch sky lanterns should be aware that they may be liable for any resultant damage to people, property or animals.

Therefore, to increase awareness and to minimise the potential risk, the following IAA Guidelines are laid down for the benefit of those planning to release sky lanterns, and for Air Traffic Control and airport managers.

## 3. The Guidelines

The following Guidelines must be observed by the Event Organiser (EO) and/or the person responsible for the release of Sky Lanterns:

1. Sky Lanterns should not be released within 10 nautical miles of an active airport.
2. Sky Lanterns should not to be tied together.
3. A written copy of the landowner's permission for the Sky Lanterns release is required.
4. No individual or group may release more than 20 Sky Lanterns in a single launch.
5. For the purposes of these Guidelines "simultaneously released at a single site" shall mean the release of not more than 20 Sky Lanterns during a period not exceeding 15 minutes from within an area not exceeding 1 kilometer square.
6. Wind conditions should be calm to limit the travel of the Sky Lantern and facilitate the retrieval of debris.
7. No metal tags or any other item which could reasonably be expected to cause damage to turbo-fan/jet engines to be attached to the lanterns.
8. The EO and/or any other persons responsible for the launch must be mindful of hazards close to the launch site such as trees, power lines and buildings and pay particular attention to other environmental factors near the launch site including crop fields, livestock, habitation and the proximity to airfields.
9. Before using Sky Lanterns always read their Safety Instructions.

10. If the Sky Lantern release is planned to take place on or near the coast, the Event Organiser must pass all the relevant details to their local Coastguard prior to the event.
  
11. It is the responsibility of the EO and /or the person responsible for releasing a Sky Lantern to inform any other State agency or effected parties including the Gardaí, the Forest Service etc. as may be deemed necessary by the person launching the Sky Lanterns.

#### 4. Further Information

Useful Phone Numbers:

Dublin ATC:	01- 8445962	Cork ATC:	021 4329623
Shannon ATC:	061-366148	Irish Coast Guard Dublin:	01 6620922