



## **DISPLAY RISK ASSESSMENT GUIDELINES**

(to be used in conjunction with Form 245b BPA Display Risk Assessment Form)

### **Introduction to Risk Assessment**

A risk assessment is nothing more than a careful examination of what, in your activities, could cause harm to people. You can then decide whether you have taken enough precautions or should do more.

The ideal is to try to make sure that no one ever gets hurt. But accidents do occur. They may have significant adverse effects on your display, team's reputation and a knock on effect to our Sport. Additionally it could have an effect of lost income, additional expenditure and loss of goodwill. Poor risk management is just a form of poor management. So there are real benefits - both moral and economic - of getting it right. And, when you do, you start a virtuous cycle of continuous improvement.

As with most exhilarating activities, there are many hazards within our sport of skydiving. So, where should you start... or stop?

### **What to assess**

A 'hazard' is defined as 'something with the potential to cause harm'. Below is a non-exhaustive list of typical hazards associated with the activities of a **PARACHUTE DISPLAY TEAM**.

- Hazards associated with jumpers landing - water, trees, buildings, fences, tents, funfairs etc
- Canopy collisions in the air
- Canopy collisions with a moving object on the ground
- Aircraft infringements
- Aircraft failure - engine or structural
- Off-landings (into crowd or under/overshoot areas)
- Radio failure - aircraft, ground
- Parachute failure - AAD, main parachute
- Control of spectators. Include vulnerable groups infants, elderly & disabled
- Ground conditions i.e. wet grass, slopes & consider movements in the arena prior to landing i.e. vehicles.
- Recalibration of AAD's required?
- Loss of external equipment flags or smoke.
- Relevant fencing around arena - may be a collision hazard?

The first thing to decide is whether a hazard is significant and whether you have in place satisfactory controls (precautions) so that the risk is small. This should be checked when you assess the risks.

Consider how likely the hazard is to cause harm, and how serious that harm might be. This will determine whether or not you need to do more to reduce the risk. Even after all controls have been put in place, some risks will be likely to remain, but they may well have been reduced.

### **How to record your assessment**

Start by making a list of hazards associated with a display, look at general and site specific items. This information you could gain from previous experiences of displays and will also be gained from your DZ recce before the display occurs. This will make it easier when you come to complete the risk assessment form. You may wish to list the generic hazards first (see BPA Form 245b – Example) and then concentrate on those that pose a significant risk where control measures could be improved. The risk assessment form (BPA Form 245b) is in two parts, as follows.

**Part A** This consists of details of what is being assessed, who is doing the assessment and on what date, etc. It also includes the display location and categorisation, B, C or D Licence.

**Part B** (*please refer to the form when reading these guidelines*) is divided into 6 columns and uses a Risk Level Matrix. This is an easy way of identifying how we can improve the control of risks using *pre* and *post* control categories. This will enable you to categorise a risk before and after you have improved its control measures.

You may find that even with more control measures in place, the risk has not been eliminated or reduced by very much, sometimes hardly at all. Don't worry - this sometimes happens. It simply means that you need to think some more about the nature of the risk and the strategies for its control.

*It is important only to record those control measures that you will actually use, or can implement.*

In column 1 of the risk assessment form, record the hazard or activity that may cause harm - such as obstructions, trees, buildings, crowd etc.

In column 2, record who may be harmed by the hazard, such as skydivers or members of the public, etc.

In column 3, record the *pre* control risk rating. This is your assessment of how much harm the hazard identified in column 1 has the potential to cause. It is based on the *likelihood* of something happening, and - if it does happen - how serious the harm is likely to be in terms of *severity*. Attach a numerical value from 1 to 5 to likelihood and severity and record this within the column, for example 4 (likely) x 3 (significant injury) = 12 (High Risk). A High Risk needs to be reduced.

In column 4, record your existing controls - the precautions you already have in place. Relevant sections of the Operations Manual can be highlighted here, in addition to other controls.

If additional control measures are required, details of these should be set out in column 5. This may consist of references to your DZ Recce or new controls that you have identified, to be used in addition to those already in place if there is requirement once reviewed on the day.

In column 6, record the *post* control risk rating. This is a new calculation of the likelihood and severity now that you have implemented additional controls (if any). Be honest in your assessment. You may find the risk level does not reduce, as the same risk still remains. Calculate the post control risk rating for each of the other hazards or activities on your list.

If the risk rating does not reduce sufficiently, you may need to consider what additional control measures can be implemented to reduce it further. Discussing the risk with those from other teams can be helpful in developing new or improved risk control measures.

The aim is to reduce all risks and to keep them as low as possible.

### **Review your assessments**

The Risk assessment is only useful for that one display. Your next display will require a new risk assessment, but you can still use the generic assessments i.e. aircraft used parachute malfunctions, etc in your new display risk assessment with the additional details form your Recce.

You must review your risk assessments to make certain that the control measures are still working effectively; a competent person should complete this on the day at the display site (see On-site review on display day, below). Any significant changes should be reassessed and recorded and communicated to the team leader prior to take -off.

In addition you may need to review your assessment if:

- you have a change of aircraft or equipment
- whenever you have a change of team members
- whenever there is an amendment to the BPA Operations Manual
- after a significant accident or incident, and taking into account any subsequent recommendations made by Boards or Panels of Inquiry, or safety working parties or groups

- when manufacturers' safety notices or BPA Safety Information Bulletins are issued
- if you suspect that your current display assessment is will longer valid on the day.

Even if everything appears to have stayed the same, your risk assessment still needs to be reviewed on the day.

### **On-site review on display day**

- To allow for time to put in place improved control measures, the risk assessment is carried out in advance. But this leaves the potential for new or altered risks from changes between the time the risk assessment was carried out and the day of the display. The purpose of the on-site review of the risk assessment on the day of the display is to identify and control any **new** or **changed** risk. Only then can the risk assessment be signed off as current.
- The question to ask is: what has changed since the original risk assessment? Any changes must be taken into account, and where appropriate the risk assessment reviewed. Particular attention must to be paid to new hazards that may not have been present at the time of the original risk assessment.

### **Display Site**

- Carry out a visual recce
- Speak with the site controller

Has anything substantial been moved, or added? For example: temporary or portable structures, marquees, kiosks, fencing, television camera gantries, generators, other installations, etc?

Are the public access and egress routes as per the original risk assessment?

Are the public areas and vehicle parking areas as per the original risk assessment?

Are any events near or adjacent to the parachute display planned? Have they been included in the risk assessment?

Is there any new or different hazard in the immediate vicinity of the site since the original risk assessment?

Will anything be different at the time of the display from how it was when the risk assessment was conducted (weather, light conditions, presence of spectators, etc)? If so, take into account in the review of the risk assessment.

Confirmation of liaison with police and emergency services.

Any equipment changes from those planned when the original risk assessment was carried out?

Are the (i) aircraft and equipment, and (ii) display personnel as per the original risk assessment?

Has there been any team substitution? Have new/replacement members been adequately briefed?

### **Retention of Risk Assessments**

Risk Assessments need to be retained for a minimum of five years. They may be audited by the BPA at any time for compliance. They should also be used as part of your safety management system for continuing improvement.

### **Other Points For Consideration**

- Documenting competent person has been fully briefed on the ground of their duties and responsibilities including accident incident or fatality procedure and should this be dated and signed as an appropriate training record?

- All clearances and NOTAMs received and sent? Evidence documented?
- First aid arrangements in existence and provision for calling emergency services in Place?
- Rescue procedure in place i.e caught on power line, flagpole, stadium or roof?
- Any exemptions for a display requiring STC Approval should be accompanied by completed risk assessment and the control measures to be used for the requested exemption?
- M.E.L. It may be used as a control measure that a radio for ground to air contact is used on the display
- Sufficient ground control to execute duties and responsibilities i.e. commentary, crowd control, target changes etc should we have a minimum number?
- Should nominated ground crew i.e competent person be named on Part A of the form? and if so should the jumpers on the display?
- Is there a standard securing method for external equipment i.e. flags or smoke or can anyone make an attachment and jump it?
- Should the risk assessment be accompanied by a site plan identifying hazards?
- Currency and competency checked and documented? How?