



# AeroMusicals

## AeroMusicals (Class F6B) Judge's Guide

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### 1. PURPOSE

The purpose of the FAI AeroMusicals Judges' Guide is to provide judges with some insight to assess the artistic and technical qualities of AM flights. Unlike the strive for perfection and precision of the FAI F3A and F3C classes of precision aerobatics, AeroMusicals is designed to be a spectators and media-friendly event, and flights should be performed with entertainment in mind. Judges must look for flights to have an overall entertaining quality without compromising technical ability.

### 2. CRITERIA

The following judging criteria are used to assess the quality of AeroMusicals flights. The scoring system already has a built-in weighting system. This means that judges should consider independently each of the criteria on a scale from zero to maximum score and not place a higher emphasis on, say, artistic quality and lesser emphasis on technique. Scoring is done in half-point increments.

#### 2.1 Technique

- Precision and accuracy of the execution
- Use of the full range of the aircraft's flight envelope/characteristics
- Versatility
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#### 2.2 Artistic quality

- Synchronisation with music
- Continuous flow of manoeuvres and figures
- Contrast

#### 2.3 Overall appearance/impression

- Full use of performance zone
- Positioning

## **2.1 Technique**

### **Precision and accuracy**

Technique has to do with the technical skills exhibited by the competitor. The manoeuvres and figures should be executed with precision and accuracy, with the competitor demonstrating that he has the aircraft under full control in all attitudes. It should be clear to the judges that the manoeuvres flown were, in fact, intended and fully under the pilot's control. Higher marks will be given under this heading when individual manoeuvre elements are started and finished on obviously precise headings and well-defined attitudes.

### **Use of the full range of the flight envelope**

Judges must satisfy themselves that the competitor makes full use of many different areas of the flight envelope of his aircraft. This means flying at the full range of speeds and accelerations possible. Both positive and negative parts of the envelope should be used in reference to both speed and acceleration. The flight should include the demonstration of controlled flight beyond the stall boundary by use of hovering, autorotation or other high-alpha manoeuvres.

The pilot is expected to show movement of the aircraft about all axes. Higher marks will be given to competitors able to make use of all these effects through a wide range of aircraft attitudes and flight paths. Repeated use of the same or similar attitudes or manoeuvres should result in a lower score for this category.

### **Versatility**

A combination of a wide variety of figures flown on different axes and flight paths. Many different figures should be completed in the time available. These should include manoeuvre elements of many different kinds and should use many different flight paths and axes. Lower marks should be given to a pilot who used only one or two principal axes of flight. However, the use of additional axes must be clear and precise, not giving the appearance of being used by chance. Marks should also be deducted if any particular manoeuvre element is over-used or continues for an excessive period of time.

## **2.2 Artistic quality**

The artistic quality of a flight has to do with how well the competitor choreographed his flight.

The effective use of visual mood-enhancing devices such as ribbons, streamers, lights etc. should result in higher scores, provided their use is synchronised with the flight performance and music. These devices must not be incidental and must enhance the flight performance. Any malfunction of these devices should result in a lower score, unless deliberate and intentional jettisoning is used to create a more dramatic and spectacular effect.

## **Synchronisation with music**

The difficulty of AeroMusicals is for competitors to fly perfectly in harmony and rhythm with a musical arrangement they have selected themselves. The music must enhance and augment the flight, so that the right mood is created. Marks should be deducted in this category for a flight that shows no relation between the rhythm of the evolutions and the music, therefore transforming the musical accompaniment to simple background music.

## **Continuous flow of manoeuvres**

The selection of only one piece of music with no discernable contrast, mood changes, or tempo, is an indication of lack of flair by the competitor and should be met with a lower score. Ideally a good compilation of differing pieces of music of contrasting rhythms and tempos that is matched by flight performances should score higher.

Judges should look for a continuous flow of manoeuvres and sequences that are well blended. Periods of inactivity or level flights between sequences of manoeuvres should result in lower scores than flights that have continuous, well-blended sequences.

## **Contrast**

Typically, a high-scoring flight must have enough variation in pace and contrast in the music: dramatic, loud and lively passages in the music should be matched with energetic actions in the flight, with rapid rotations or changes in attitude and high-G manoeuvres. Conversely, less dramatic, softer and soothing passages in the music should be matched with manoeuvres and figures that contain graceful rolling, hovering, spinning and tumbling actions. Music that builds in tempo and volume, and reaches a crescendo, should be matched with vertical manoeuvres that end either high, or low, etc.

## **2.3 Overall appearance/impression**

### **Full use of performance zone**

The sequence should be centered on the judges position. Highest marks will be given when the sequence as a whole is balanced evenly in width, depth and altitude. Marks should be deducted if a programme is noticeably biased with all parts of the flight space volume not used to the same extent. The greater the degree of asymmetry, the lower should be the score.

### **Positioning of manoeuvres**

Competitors should present individual figures in their best orientation and their optimum position. Judges should look for the optimum placement of manoeuvres and sequences where the most critical portions of manoeuvres can be evaluated. Figures can give different impressions when seen from different viewpoints.

Manoeuvres and figures should be performed so that they are easy to see

and judge, the competitor making full and balanced use of the manoeuvring volume or performance zone. Dangerous and reckless flying, or flying an aircraft towards the spectators or the judges in an apparent uncontrollable manner, should be scored low in this category, even if the flight has technical merits and artistic quality. Judges should recognise the difference between showmanship and reckless flying.

### **3. JUDGING METHODS**

It is advisable for judges to pencil in their marks/scores as a flight progresses, rather than having to wait until the end of a flight before an assessment is made in any of the criteria. By using this method, judges may be able to move up or down the scoring range as the flight unfolds, to arrive at a more accurate judgement. Continuous attention must be given to the three judging criteria during a flight.

The score sheet is designed in such a way that scores for any judging criteria are spread along the same length between zero and the maximum score for that specific criteria. As a result, the relative distance of the mark from the leftmost part of the score sheet is a direct indication of its relative value for that criteria, irrespective of the actual maximum possible score. This method enables quick scoring without resorting to K-factors and makes possible a public display of the flight scores within a very short time after the flight has been completed. In case a zero mark should be awarded, it may be directly written in the righthand box.

#### ***Marks***

Judges should always remember that the final classification is dependent upon the relative scores of the competitors and not the absolute value of the marks. The actual score is not important, the ranking is. One should always have the possibility to sanction a difference in performance with a wide enough score difference, specially taking into account that the specified starting order makes for successive competitors having roughly similar values and the top level competitors flying at the end of the round. As a result, judges should always keep in mind that later flying competitors may score higher and that is more important separating the top placers than the last ranking pilots. To this purpose it is best to keep scores low enough for the first starting competitors to always keep some margin of improvement, should subsequent flights prove decidedly superior. Therefore, when in doubt, always score the lower mark.

### **4. ACCURACY, CONSISTENCY AND NON-BIAS**

The scoring criteria are quite subjective and are not designed to follow strict qualitative judging standards. This should however not preclude judges from maintaining a consistent judging standard, even with the possibility of widely varying flight performances. Judges will see a wide selection of styles, indicating personal preferences, personality traits and individuality. For this reason, judges should not be biased, positively or negatively, towards a pilot, or particular type of aircraft, power plant, or music type (classical, jazz, pop, rock, choral, instrumental, etc.).

## 5. CLOSING

It should be remembered by judges that AeroMusicals is designed to be attractive to the modern electronic media, and to the uninformed spectator to aeromodelling, to entertain him, and to ensure that he remains occupied, either at the flying site or in front of his visual medium. Flights should have enough entertainment value that will cause spectators to judge the flights for themselves, without having extensive background in qualitative judging methods. It should leave an impression of « competitor two had a more pleasing, impressionable and entertaining routine than competitor four ». However, the entertainment value of flights and the attractiveness to spectators and the media should not overshadow or detract from the very important aspect of the competitors achievements. After all, without the competitors, there won't be an event.

Using the judges guide will hopefully ensure that judges rank the competitors in the fairest possible order, thus generating widespread public appeal and acceptance of aeromodelling as a sport worthy of media coverage.

