



IJMC Basic Scale Demo Class 2024 Rulebook

1.0 General Characteristics “Basic Scale Demo Class”

1.0.1 Participation

Pilots participating in the Basic Scale Demo class are not permitted to compete in the Jet Scale class or Turbo Prop Class in parallel.

1.0.2 Team classification

The ranking of the individual pilot in the Basic Scale Demo class will not be considered for the ranking of any team ranking of the Jet Scale class.

1.0.3 Propulsion of the model

The means of propulsion can be a jet engine or a fan driven by an electric motor (EDF).

1.1 Documentation

a) The documentation requirement is the minimum considered necessary to fully assess the outline from 3 views, the colour, the markings and the realism. As with all scale airplanes static judging, good photographs are the prime means of judging scale accuracy. Photographs and reproductions should be of a reasonable size, (preferably DIN A4) and presented on separate sheets.

b) There are no prescribed penalties for missing or inadequate documentation, but judges can only award marks on the basis of the documentation available. Poor documentation will be reflected in reduced scores and any item of static judging for which there is no documentation will result in a Zero score for that item.

1.1.1 Photographic evidence:

A minimum of one (1) photograph or printed reproductions and a maximum of six (6) photographs or printed reproductions of the prototype, one or more of which must show the actual subject aircraft being modelled. At least one photograph must show the whole aircraft.

Photographs of the model are not permitted unless it is posed alongside the full-size prototype modelled for proof of colour. Photographs which show evidence of digital manipulation shall result in disqualification. There is no requirement for close-up or detailed photographs, but additional photographs (within the maximum of 6 total) can be used to support the three views if the outline needs clarification. One photograph (within the maximum of 6 total) can show a close-up of a scale detail.

1.1.2 Drawings:

Three view drawings (side view - left or right, front view, top view) are required and will be used by the judge as the basis for judging outlines. Photographs take precedence when discrepancies exist between the drawings and the chosen subject.

1.1.3 Proof of colour and markings:

This may be in the form of colour chips or original paint samples, colour photographs (which may be the same photos supplied for outline), or colour illustrations published in books, magazines or on kit boxes. Published descriptions are also acceptable when accompanied by examples of similar colours used on other aircraft types. Authenticated colour chips will not be a requirement for proof of colour.

1.2 Static Judging

- a) The final static score shall be the sum of the individual judge's marks.
- b) All static judging is carried out at a distance of 5 meters. This is measured from the centerline of the model to the judges seating position.
- c) Each of the items will be awarded a mark out of 10 by each Judge using increments of a tenth (1/10) of a mark.

1.2.1 Scale Accuracy

This is an assessment of the outline accuracy of the model compared with the prototype as seen from three views (side, front and top view), judged by comparison with the documentation presented.

1.2.2 Colour Accuracy

This is an assessment of the accuracy of the colours of both the colour scheme and the markings of the model in comparison with the documentation presented.

1.2.3 Markings Accuracy

Markings accuracy is an assessment of the position, orientation and size of the markings, including the camouflage scheme, in comparison with the documentation.

1.2.4 Surface Accuracy

This is an assessment of how well the prototype's surface, as illustrated by the documentation, is reproduced on the model.

1.2.5 Scale Detail Accuracy

This reflects the accuracy with which the scale detail presented on that one picture is reproduced on the model.

1.2.6 Overall Realism

This is a subjective assessment of how well the model captures the character of the prototype as illustrated by the documentation; taking into account the surface finish, weathering and any detail that is noticeable at 5 m.

1.2.7 Static Judging Item K-factor

Scale Accuracy:

Side view	K= 7
Front view	K= 7
Top view	K= 7
Colour Scheme Accuracy	K= 5
Markings Accuracy	K= 7
Surface Accuracy	K= 10
Scale Detail Accuracy	K= 7
Overall realism	K=10

Total K= 60

Normalisation:

The total of the competitors' static scores will be normalised to 1000 points as follows:

$$\text{Static Points } x = Sx/Sw \times 1000$$

Where: Static Points x = Normalised Static Score for competitor x , Sx = Static Score for competitor x ,
 Sw = Highest Static Score

1.3 Flying Schedule

The Flying Schedule and associated flying pattern are identical to the Jet Scale class.

Normalisation:

The total flight score of each competitor for each round will be normalised to 2000 points as follows:

$$\text{Flight Points } x = Fx/Fw \times 2000$$

Where: Flight Points x = Normalised Flight Score for competitor x , Fx = Flight Score for competitor x ,
 Fw = Highest Flight Score

1.4 Final Scoring

For each competitor, add the normalised static score earned in 1.2 to the average of the normalised scores of the two best flights under 1.3. If the competitor has achieved only one flight, the normalised score awarded for that flight will be divided by two.

If for any cause beyond the control of the organisers (e.g. too many entries in Scale Jet class), less than three official rounds being flown, the scoring shall be completed as follows:

- a) If two rounds are flown, the average of the normalised scores of the two flights as in 1.3. will be used.
- b) If only one round is flown, the single normalised flight score of that one round will be recorded.
- c) The scores in an official round can be recorded only if all competitors had equal opportunity for a flight in that round.

2.0 Weight

2.0.1 The maximum Take-Off weight MTOW - **wet** (Fuel and ballast tanks adequately filled and with propulsion batteries, in case of an EDF) of the Basic Scale model may not exceed 25kg. A weighting tolerance of +0,5% (125gr) is allowed due to the scale accuracy.

After refilling of all tanks, the MTOW-wet is measured on a scale immediately before the start of the flight in the preflight preparation zone. After the measurement procedure the model may not be modified or changed with any equipment which might lead to a change in weight. NB.: A removable external tank can be used during the taxiing to the take-off position.

2.0.2 If the flying schedule will not be terminated by a safe and proper landing with a running engine caused by **missing fuel**, the entire flight will be rated with zero points due to safety reasons. In this case the level of fuel will be checked and validated by the flight line director after landing.

If a model does not meet the weight criteria for the class entered, the flight will score zero. The Organisers are encouraged to pursue weight checks after further flights on any model close to the limit.

Note 1: The organiser must provide scales with a resolution of 5 gram. In order to check the accuracy, he must also provide calibration weights of 1kg and 5kg for use throughout the competition so that scales can always be checked and scale calibration certificates will not be required. The scales used in the competition should be calibrated at the 25.0 kg limit and made available to the contestants at least one day before the start of the competition.

Note 2: The upper limit must comply with legal limits required by the country hosting the event.

