



IJMC Turboprop Class 2024 Rulebook

Turboprop rules as approved at the AGM 2024

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1.0 General Characteristics Turbo Prop Class

1.0.1 Participation

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

1.0.2 Team classification

The ranking of the individual pilot in the Turbo Prop Class will not be considered for the ranking of any team or nations ranking of the Jet Scale class.

1.0.3 Propulsion of the model

The propulsion of the turbo prop model must be a **jet engine driving a propeller**.

1.1 Documentation

a) The documentation requirement is the minimum considered necessary to fully assess the outline from 3 aspects, the color, the markings, the surface, scale details 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, **as described in 4.0.2. of the “IJMC Scale Jet Classes 2022 Rulebook and Judges Guidelines”**.

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 five (5) photographs or printed reproductions and a maximum of ten (10) 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 color. Photographs which show evidence of digital manipulation shall result in disqualification. There can be one (1) close up or detailed photograph which will be judged close to the model, but additional photographs (within the maximum of 10 total) can be used to support the three aspects if the outline needs clarification and for the other aspects.

1.1.2 Drawings:

Three view drawings 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 color and markings:

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

1.2 Static Judging

- a) The final static score shall be the sum of the individual judge's marks.
- b) All static judging, except for the one close-up scale detail, 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 aspects (side, front and top plan), judged by comparison with the documentation presented.

1.2.2 Colour Accuracy

This is an assessment of the accuracy of the colors of both the color 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 Cockpit Craftsmanship

This is a subjective assessment of how well the model's cockpit interior is crafted, being judged with the canopy closed.

1.2.6 Craftsmanship

This is a subjective assessment of the overall craftsmanship of the model.

1.2.7 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 other detail.

1.2.8 Scale Detail Accuracy

This reflects the accuracy with which the scale detail presented on that one picture is reproduced on the model. This is the only item being judged close to the model.

1.2.9 Propeller and Spinner

The number of propeller blades has to be the same as the full-scale prototype. The shape and size of the blades will not be judged.

The shape of the spinner is judged under 1.2.1 Scale accuracy of the outlines.

1.2.10 Static Judging Items K-factor

Scale Accuracy	
Side view	K= 10
Front view	K= 10
Top view	K= 10
Colours and colour scheme Accuracy	K= 10
Markings Accuracy	K= 10
Surface Accuracy	K= 10
Cockpit Craftsmanship	K= 5
Craftsmanship	K= 10
Overall Realism	K= 15
Scale Detail Accuracy	K= 10

Total K= 100

Normalisation:

The total of the competitors' static scores will be normalised to 500 points as follows:

Static Points $x = Sx/Sw \times 500$

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 1000 points as follows:

Flight Points $x = Fx/Fw \times 1000$

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, less than three official rounds can be flown, the scoring shall be completed as follows:

- If two rounds are flown, the average of the normalised scores of the two flights as in 1.3. will be used.
- If only one round is flown, the single normalised flight score of that one round will be recorded.
- 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) of the Turbo Prop 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 immediate before the start of the flight in the Pre-flight 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. N.B.: 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 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.

