



CIAM Flyer 2-2024

Flying Scale Model Aircraft

F4K - New Class Scale Helicopters

The International Air Sports Federation FAI has published the rules for building and flying scale helicopter models. This will give new impetus to the popular classes where building and constructing is combined with flying.

Strict tradition

The traditional class for remote-controlled scale models F4C - replicas of man-carrying aircraft - places high demands on builders and pilots. These models can have a maximum weight of up to 15 kg. The models demonstrate

a great combination of constructive craftsmanship and flying skills. The very precise "miniature duplicates" require several years of research, planning and construction work. The results, all works of art, are judged at world championships by a jury

according to a series of criteria (static judging):

- Scale Accuracy (Side view b. End view c. Plan view)
- Markings Accuracy
- Color Accuracy
- etc.

In addition to the model itself, drawings and photographs must also be submitted to the jury.



The second part of a scale championship consists of flights in front of a panel of judges. Each flight must imitate the flight behavior of the original. A figure catalog serves as a guideline.

Slightly fewer details

In the newer F4H scale class, fewer design details are assessed. However, the flights have a higher weight. The ratio of static and flight



points is 1 : 2, i.e. the flight score counts double. The competitor must declare whether his model is an own construction, a kit or a ready-to-fly model. The static assessment of the models by the jury must be carried out from a distance of 5 meters. World championships are also held in this class, together with the traditional F4C class.

Scale Helicopter F4K

Helicopters are the newest competition class in the scale family. Their weight limit is 25 kg. Classic combustion engines, turbines or electric motors can be used as propulsion systems. Model helicopters are technically and structurally very complex aircraft: mechanics, control of the drive, flight control in conjunction with complex stabilization systems are available on the market. The sophisticated and competent handling of these requires experience and in-depth knowledge of the technology. The replicas must also correspond very closely to the originals in the F4K class.

Criteria for the construction evaluation:

- Accuracy of Outline (excluding main and tail rotor systems)
- Accuracy of Color
- Identification marks and markings
- Realism



The flight behavior and the execution of the flight maneuvers must correspond as closely as possible to a helicopter operation.

Conclusion

F4K is a promising new scale class. Small weights - around 10 kg - to very large helicopters (25 kg) can be used in competitions. However, the technical and design complexity increases with the very large machines. It is easy to overestimate enthusiasm. Even a rather modest start with scale can lead to success. Good luck.

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Flying Scale Model Aircraft:

<https://fai.org/page/ciam-code>