



22 The Known Program

22.1 Publication

22.1.1 Known Sequences for each category are published annually by the IAC.

22.2 Composition

22.2.1 Known Sequences are unrestricted in K value and figure selection but will be created to match the aircraft capability and experience expectations of their associated categories.

22.3 Order Within the Schedule of Programs

22.3.1 Known Programs will be flown prior to any other Programs.

23 The Free Program

The Free Program allows competitors to fly a sequence tailored to their skills and aircraft capabilities.

23.1 Sequences to be Flown During this Program

- a) Primary competitors must fly the Primary Known Sequence.
- b) Sportsman competitors may fly either the Sportsman Known Sequence or a Free Sequence.
- c) Intermediate, Advanced, and Unlimited competitors must fly Free Sequences designed according to the rules in this chapter.

23.2 Free Sequence Figure and K-Factor Limits

23.2.1 Free Sequences are limited to the maximum number of figures and Maximum Total Figure K-Factor as shown below.

Category	Maximum # of Figures	Maximum Total Figure K-Factor
a) Sportsman	12	Same as the current year's Known Sequence
b) Intermediate	15	190
c) Advanced	14	300
d) Unlimited	9	420

23.3 Floating Points

23.3.1 Competitors may reduce the Total Figure K-Factor by removing one point (the "Floating Point") from the highest coefficient figure.

Clarification: It can be difficult to make a sequence exactly match the Maximum Total Figure K-Factor. This rule allows a bit of flexibility, permitting competitors to exceed the Maximum Total Figure K-Factor by one point.

23.3.2 Both the original figure coefficient and the reduced value must be shown on the Scoresheet and the initials "F.P." written in the "Catalogue No." column.

23.4 Versatility

23.4.1 Free Sequences must include, at minimum, the following entries from the Aresti Catalogue:

23.4.1.1 Sportsman

- a) **Family 7** At least one from Half-Loop or Full Loop (7.2.1 thru 7.2.4, 7.4.1 thru 7.4.6).
- b) **Family 8** At least one.
- c) **Family 9** At least one Aileron Roll (9.1 thru 9.8).
- d) At least one Spin (9.11 thru 9.12).



23.4.1.2 Intermediate

- a) **Family 5** At least one.
- b) **Family 7** At least one Half-Loop or Full Loop (7.2.1 thru 7.2.4, 7.4.1 thru 7.4.6).
- c) **Family 8** At least one.
- d) **Family 9** At least one Aileron Roll (9.1 thru 9.8).
- e) At least one Snap Roll (9.9 thru 9.10) or *alternatively*, at least one 4 point roll on a horizontal line (9.4.3.4).
- f) At least one Spin (9.11 thru 9.12).

23.4.1.3 Advanced

- a) **Family 1** At least one.
- b) **Family 2** At least one Rolling Turn (2.1.2 thru 2.1.3, or 2.2.2 thru 2.2.7, or 2.3.2 thru 2.3.6, or 2.4.2 thru 2.4.8).
- c) **Family 5** At least one.
- d) **Family 7** At least one.
- e) **Family 8** At least one.
- f) **Family 9** At least one Aileron Roll from *each* sub-Family (9.1, 9.2, 9.4, and 9.8).
- g) At least two Snap Rolls (9.9 thru 9.10).
- h) At least one Spin (9.11 thru 9.12).
- i) **Other** At least one figure must contain opposite Aileron or Snap Rolls (9.1 thru 9.10) not in combination with a Spin.

23.4.1.4 Unlimited

- a) **Family 1** At least one.
- b) **Family 2** At least one Rolling Turn (2.2.3 thru 2.2.7, or 2.3.2 thru 2.3.6, or 2.4.2 thru 2.4.8)
- c) **Family 5** At least one.
- d) **Family 6** At least one.
- e) **Family 7** At least one.
- f) **Family 8** At least one.
- g) **Family 9** At least two Positive Snap Rolls (9.9).
- h) At least two Negative Snap Rolls (9.10).
- i) At least one Spin (9.11 thru 9.12).
- j) **Other** At least one figure must contain opposite Aileron or Snap Rolls (9.1 thru 9.10) not in combination with a Spin.



23.5 Allowable Figures

- 23.5.1 Any figure identified in the Aresti System Catalogue may be used.
- 23.5.2 In addition, the Quarter-Clover, while normally a glider figure, may be used in Power Sportsman and Intermediate Free Sequences. K factors are the same for both Power and Glider competitors.
- 23.5.3 Figures 1.1.1.1 and 1.1.1.2 may be used only in conjunction with Family 9 rolls.

23.6 Repetition

- 23.6.1 Sportsman and Intermediate categories may repeat 1.1.1.x figures without limit.
- 23.6.2 No other repetition of Aresti Aerobatic Catalogue numbers is allowed.

23.7 Free Program Form Certification

- 23.7.1 The competitor is solely responsible for ensuring that their Free Program Forms comply with these rules.

23.8 Checklist for Free Program Forms

- 23.8.1 The following items comprise a checklist to use for checking Free Program Forms compliance.
 - a) Current IAC or CIVA forms must be used.
 - b) Forms:
 - i. Each Aresti Aerobatic Catalogue number must be entered correctly.
 - ii. The correct K-Factors must be recorded.
 - iii. The total K-Factor for each figure (including any Floating Point) must be correct.
 - iv. Each figure drawing must match the Aresti Aerobatic Catalogue number(s).
 - v. The figures must be legal drawings according to the Aresti Aerobatic Catalogue
 - vi. All drawings on the forms must be legible.
 - vii. The forms must agree with each other.
 - c) Free Sequence Figure and K-Factor Limits [23.2]:
 - i. The total number of figures must not exceed the limit.
 - ii. The Total Figure K-Factor must not exceed the limit.
 - d) Versatility [23.4]:
 - The sequence must include all specified items.
 - e) Allowable Figures [23.5]:
 - The sequence must include only allowed figures.
 - f) Repetition [23.6]:
 - The sequence must not repeat any catalog numbers except as allowed.