

2007 Polecat Challenge Rules, General 2007/06/01



Flying Field

The flying field will be clearly defined by cut and uncut grass and in some cases surveyor flags as defined at the pilots meeting each morning. All launches, landings and hand catches **MUST** take place within the boundaries of the field or the flight will be scored 0. A pilot may step out of bounds during the flight **BUT** all launches, landings and catches must take place on the field. A model is defined as in bounds as long as the **NOSE** of the model breaks the plane of the field boundaries.

Frequency Control

There will be **NO** formal transmitter impound. There will only be 2 pilots max per frequency and this will be self policed among the pilots. Polecat will **NOT** be responsible for any incidents involving frequency.

Models

Restrictions on models

F3K Model airplanes are gliders, with the following limitations:

Wingspan: max 1500 mm / 59.05 in

Weight: max. 600 grams / 21.164 oz

Radius of the nose, min. 5 mm in all orientations (see F3B nose definition for measurement technique).

The model airplane must be launched by hand and is controlled by radio equipment acting on an unlimited number of surfaces.

Launch Apparatus

The model airplane can be equipped with holes, pegs or reinforcements, which allow better grip of the model airplane by hand. The pegs must be stiff and remain a firm part of the model within the halfspan of the wing, neither extensible nor retractable. Devices, which do not remain a part of the model during and after the launch, are not allowed.

Ballast

Any ballast must be inside of the model and must be fixed safe.

Switching and Retrieval of Models

The competitor may change his model airplanes at any times as long as they conform to the specifications and are operated at the assigned frequency. All spare models have to be positioned outside the start and landing field and can only be brought into the start and landing field for an immediate model change.

If the competitor lands outside the start and landing field, the model has to be retrieved back to the start and landing field either by the competitor or his personal helper, who is the only person allowed to help the competitor on the start and landing field; no other person, including the team manager is allowed to retrieve the model.

If a model change is planned, the outside landed model also has to be retrieved back to the start and landing field before the model change can be done. A third person is not allowed to retrieve the model. While retrieving the model, it is not allowed to fly it back to the start and landing field. If a model change is planned, the outside landed model also has to be retrieved back to the start and landing field before the model change can be performed.

Timers / Assistants

Each competitor is allowed one personal helper/timer who is not allowed to become physically involved in the flight, except for retrieving the airplane, if it is landed outside the start and landing field (ref. 5.K.2.). The personal helper/timer must stand close to the competitor during the working time on the start and landing field.

Disabled persons may ask for assistance at launching and retrieving (catching) their model airplane.

Safety

Model-to-Person Collisions

In order to guarantee the highest level of safety, any contact between a flying model and a person either on the start and landing field (except the competitor of the model) or outside the start and landing field has to be avoided. If a contact happens between a flying model either within the working or preparation time, the contest director assigns a penalty of 100 points on the total score of the competitor. In addition, if a contact happens during the starting phase of the model and during the working time of a round, this will result in a zero score for the whole round.

Model-to-Model Collisions

In cases of collisions of two or more models in the air, no re-flights or penalties for the involved competitors are granted, even if the models land outside the start and landing field, which results in a zero score of the affected flight.

Contest Format

Detailed specifications including the tasks to be flown for the day must be announced by the organiser before the start of the contest. The tasks of the program are defined below. Depending on the weather conditions and the number of competitors, the tasks and the according working time may be reduced by decision of the organiser as defined in the task description. No points are deducted for flying over the maximum flight time or for flying after the end of working time.

Time is started when the plane leaves the pilots hand and ends when the plane touches the ground or any ground based object (for instance, the plane touches a tree, continues on and makes it back to the field. This is a valid flight because the plane came to rest on the field BUT the time stops with contact to the tree)

All competitors must land within 30 seconds after the end of the working time (acoustic signal) or for the task "all-up-last-down" after each attempt. If the model airplane lands later, the last flight will be scored with 0 points.

Tasks

LAST FLIGHT ONLY, 5-Minute Max, Unlimited Throws

5.K.11.1. Task B:

During the working time, the competitor may launch the model airplane an undefined number of times, but only the last flight is taken into account to determine the final result. The max. length of the flight is limited to 300 seconds. Any additional start of the model airplane in the start and landing field annuls the previous time.

Working time: min. 7 minutes, max. 10 minutes

LAST TWO FLIGHTS, 3-Minute Max, Unlimited Throws

5.K.11.2. Task C (Next to last and last flight)

Each competitor has an unlimited number of flights, but only the next to last and the last flight will be scored.

Max. time per flight is 180 seconds for 10 minutes working time.

If the number of competitors is large, the max. flight time may be reduced to 180 seconds and 7 minutes working time.

Example:	1 st flight	65 s
	2 nd flight	45 s
	3 rd flight	55 s
	4 th flight	85 s

Total score: 55 s + 85 s = 140 s

ALL-UP, LAST DOWN, 3-Minute Max, Scheduled Throws

5.K.11.3. Task E (All up, last down, seconds):

All competitors of a group must launch their model airplane simultaneously, within 3 seconds after the signal of the organiser. Max. measured flight time is 180 seconds. The official timekeeper takes the individual flight time of the competitor according to 5.K.6 and 5.K.7. from the release of the model and not from the acoustic signal of the contest director. All competitors must start their model within 3 seconds after the signal of the contest director. Starting a model later than 3 seconds after the acoustic signal results in a zero score for the flight. The contest director or a personal helper have to control, that all competitors start within the 3 seconds after the acoustic signal.

The landing of the model in each attempt has to be done within 30 seconds after the max. flight time. If not, the flight is scored zero. The number of launches may be min. 3 and increased up to a max. of 5 and must be announced by the organiser before the contest begins.

The preparation time between the attempts is limited to at most 60 seconds after the additional 30 seconds for landing. Thereby the competitor has at most 90 seconds after the max. flight time of the previous attempt to retrieve or change his model, or to do repairs.

Each flight time of the 3 attempts of each competitor is to be added up and will be normalised to calculate the final score for this task.

No working time needed.

Example: Competitor A: $45+50+35\text{ s} = 130\text{ s} = 812.50\text{ points}$
 Competitor B: $50+50+60\text{ s} = 160\text{ s} = 1000\text{ points}$
 Competitor C: $30+80+40\text{ s} = 150\text{ s} = 937.50\text{ points}$

INCREASING FLIGHTS, 15-Second Increments, 30-Second First Flight

5.K.11.4. Task H (Increasing time by 15 seconds):

During the working time, the competitor may accomplish as many launches as he likes. Each competitor must try to complete a flight of more than 30 seconds. Once this is accomplished, the next flight times must be incremented by 15 seconds. So flight times should be more than: 30 s - 45 s - 60 s - 75 s - 90 s - 105 s - 120 s. The longest flight time is 120 seconds. To reach any specific flight time, the number of launches is unlimited. The time of all achieved max. flight times is taken into account. See the example below.

Working time is 10 minutes.

Example: (increment 15 seconds)

1 st flight	32 s	the max of 30 seconds is reached. Next flight should reach 45 seconds. Partial score is 30 points
2 nd flight	38 s	45 seconds not reached, score 0
3 rd flight	42 s	45 seconds not reached, score 0
4 th flight	47 s	the max of 45 seconds is reached. Next flight should reach 60 seconds. Partial score is $30 + 45 = 75\text{ pts}$
5 th flight	81 s	the max of 60 seconds is reached. Next flight should reach 75 seconds. But the remaining working time is only 65 seconds.

Total score of the task is $30\text{ s} + 45\text{ s} + 60\text{ s} = 135\text{ s}$

Example:	Announced time	Flight time	Scored time
	45 s	1 st flight 46 s	45 s
	50 s	1 st flight 48 s	0 s
		2 nd flight 52 s	50 s
	47 s	1 st flight 49 s	47 s
	60 s	1 st flight 57 s	0 s
		2 nd flight 63 s	60 s
	60 s	1 st flight 65 s	60 s

Total 262 s

FIVE FLIGHTS, 2-Minute Max, Unlimited Throws

5.K.11.7. Task M (Five longest flights- two minutes max time per flight)

Each competitor has an unlimited number of flights. Only the best five flights will be added up.

Max. accounted single flight time is 120 seconds. Working time is 10 minutes.

1,2,3,4-Minute Flights, Unlimited Throws

5.K.11.8. Task P (A one, two, three and four minute flight, any order)

During the working time, the competitor may accomplish as many flights as he likes. He has to achieve four different max flight times of 60, 120, 180, 240 seconds in any order. This basically means that the four longest flights flown in the working time are assigned to the four max times, so that the longest flight is assigned to 240 seconds, the 2nd longest flight to 180 seconds, the 3rd longest flight to 120 seconds and

the 4th longest flight to 60 seconds. Flight seconds longer than the assigned max time are not taken into account.

Working time is 10 minutes.

Example:	Flight time	Scored time
1 st flight	63 s	60 s
2 nd flight	239 s	239 s
3 rd flight	182 s	180 s
4 th flight	90 s	90 s

Total score of this task would be $60\text{ s} + 239\text{ s} + 180\text{ s} + 90\text{ s} = 569\text{ s}$

THREE FLIGHTS, 3-Minute Max, 3 Throws Only

Each competitor has only three flights. These three flights will be added up to form the final score. If the competitor makes subsequent flights past the third flight, they will not be counted toward the final score, and no penalty will be placed upon the competitor.

Max. accounted single flight time is 180 seconds. Working time is 10 minutes.