

# RULEBOOK

DMFV EUROPEAN ACRO CUP

Unlimited

Intermediate

Basic

Freestyle

Version 2019 V1 EN

**DMFV-SPORTREFERAT**  
EUROPEAN ACRO CUP

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## Summary

<b><u>BASICS ABOUT THE EUROPEAN ACRO CUP</u></b>	<b>3</b>
<b><u>CONTESTS</u></b>	<b>4</b>
<b><u>GERMAN CONTESTS</u></b>	<b>5</b>
<b><u>DETERMINATION OF THE RESULTS</u></b>	<b>6</b>
<b><u>MODELS</u></b>	<b>8</b>
<b><u>JUDGING OF THE MANEUVERS</u></b>	<b>10</b>
<b><u>ATTACH</u></b>	<b>11</b>

## Basics about the EUROPEAN ACRO CUP

The EUROPEAN ACRO CUP (following EAC) is a session of modern and challenging contests, spread all over Europe. The results of the contests are added together to an overall ranking. The contests are mainly based on the organization „International Miniature Aerobatic Club“ (following IMAC) in mind of large scale aerobatics.

The used airplanes are based on replicas of original aerobatic planes. The contest is very attractive and challenging for the pilots, as for the spectators, due to the different programs and the final freestyle session.

## Contests

Each year two contests will take place in Germany. One as the contest for the nation Germany and the second one as final contest of the season. Further European nations can add one contest per season to the final ranking.

To add a contest to the overall ranking European Acro Cup, all following listed categories have to be offered (except the call Basic, which can be rejected by the organization). The determination of the results will be proceeded as described in the chapter Determination of the results and will be adopted by the Sportreferent in case of differing to the EAC rules. In general the determination of results should be close to well-known classes (F3M, IMAC or EAC).

The class EAC is organized in four different difficulties:

### Unlimited:

In this class four rounds are flown per contest. Two rounds of the known program (1<sup>st</sup> and 3<sup>rd</sup> round), changed annually (see attach 1). Further two rounds with different unknown sequences (2<sup>nd</sup> and 4<sup>th</sup> round), which have a lower difficulty than the known sequences.

### Intermediate:

In this class four rounds are flown per contest. Two rounds of the known program (1<sup>st</sup> and 3<sup>rd</sup> round), changed annually (see attach 2). Further two rounds of different unknown sequences (2<sup>nd</sup> and 4<sup>th</sup> round), which have a lower difficulty than the known sequences.

### Basic:

In this class three rounds of known sequences, changed annually, are flown per contest (see attach 3).

The organizer has the decision if the Basic class will be flown or not, to minimize the effort.

### Freestyle:

The participation in the class freestyle is open to every pilot. The participation in the class freestyle is only possible for pilots, who participate in one of the three classes mentioned above.

Every pilot takes care of the compatibility of his music and the delivery in time. The deadline and the suitable formats will be published on European Acro Cup homepage ([www.eac.dmfv.aero](http://www.eac.dmfv.aero)).

The choice of the class is left to the competitors. The "Sportreferent" is allowed to advice a pilot to go to a higher class, if his performance is not suitable to the chosen category.

## German Contests

Regarding the organization of the contests a committee of arbitration is installed during the opening ceremony. This team is build out of these persons:

Sportreferent, contest director (most time a club member), one judge, one pilot out of each class.

This committee of arbitration is responsible to discuss and decide about contentious situations, problems or decisions. Here the arbitral tribunal has full decision-making power.

Examples:

- Due to bad weather, the contest could not be continued (e.g. fog, rain), the committee decides about the further going on of the contest
- If a pilot is lodging appeal, the committee investigates the subject and decides whether the appeal is effectual.

During the contest, every pilot can lodge appeal against a judgement. Then a appeal fee of 30€ is taken. If the decision is made in favor of the protestant, he receives back the fee, if not it is spending to the club.

The entry fee for the german contests will be:

Unlimited: Adult (30€), youth till age of 18 (15€)

Intermediate: Adult (30€), youth till age of 18 (15€)

Basic: Adult (20€), youth till age of 18 (10€)

For the participation in Freestyle class, no further starting fee will demanded.

The registration must be completed latest till four weeks bevor the contest starts (please use the online registration form on homepage). The payment of the entry fee will be via bank transfer on the lower bank account. Please add following comment in the transfer:

NAME-PRENAME-EAC-LOCATION-CLASS

example:

KIEHL-WILLIAM-EAC-POCKING-UNLIMITED

Bank account

Name: William Kiehl

IBAN: DE33200411110596467100

BIC: COBADEHDXXX

Bank: comdirect

A refund of entry fees for non - participation is not possible.

If the maximum number of pilots will be reached, additional registrations will be added to a waiting list. The payment of the starting fee has to be completed 4 weeks in advance of a contest. In case of a missing payment the starting place is moving to the pilots on the waiting list.

A valid insurance license and the usage of a 2,4 GHz transmitter is required to participate. The use of **alcohol, drugs and doping substances** (according Prohibited List 2008, the World Anti-Doping Agency ) is forbidden for participants during the competition .

## Determination of the results

To determine the results during a competition the Sportreferent can be asked for the corresponding computer program, which is based on tool Microsoft Excel.

### Unlimited:

Best known (weighting 450‰), best unknown (weighting 550‰)

### Intermediate:

Best known (weighting 450‰), best unknown (weighting 550‰)

### Basic:

Two best known sequences

### Freestyle:

Ranking in freestyle class is build separately from the other classes. The flown round is counting to the freestyle ranking.

Each round of the contest is normalized on 1000‰. Thus the pilot with the highest absolute points receives 1000‰ for this round. The further scores are evaluated – in regard to the highest score. The scores of the rounds are added in regard of the weighting of the different rounds. The pilot with the highest percentage score after all rounds is the winner of the contest. His score is normalized on 1000‰. The scores of the other pilots are based on this normalized result. Thus, a victory is always worth 1000 ‰ .

### Special cases:

- In case of promille equality of two or more pilots, the better thrown result (in promille) will judge the position (the promille result will stay the same for both). In this case, it doesn't matter wether the thrown result is a known or unknown sequence.

Overall ranking:

For an overall ranking a pilot has to participate at least 3 contests in this season, including the final contest.

The scores are determined like this:

The two best normalized scores + normalized score of the final contest

The pilot with the highest score in this ranking, is winner of the overall season ranking of EAC. The scores are normalized on 1000%.

In case of promille equality of two pilots or more, the places are judged by the better result on the final contest. Is the promille result of both pilots on final contest equal, the result on the fourth contest (best contest which is not part of the overall ranking of the pilot) will judge about places. In case both pilots have only flown 3 contests in the season, the better thrown flight on the final contest will judge about positions in overall ranking of the season.

The overall ranking is determined in the classes Unlimited, Intermediate, Basic and Freestyle.

## Models

The flown models must be recognizable replicas of original aerobatic planes.

The maximum take-off weight is limited within 25 kilograms. But there's no limitation in regard of the engine power.

The pilot has to care about sufficient soundproofing. If a plane not confirm to the sound specifications of the club, the contest director has the possibility to force a pilot to improve the noise of his plane or even reject this airplane from the contest.

In Germany planes with a take-off weight above 200 grams have to be marked with fire-resistant sign of the holder (name and address are mandatory). The sign has to be visible from the outside of the plane.

Here is a sample copy, as it is offered at the DMFV Service GmbH:



The minimum wingspan for monoplanes is 2m and for biplanes 1,7m.

The geometry of the models must suite to these conditions:

Monoplane:

Wingspan  $\geq$  length over all (incl. Spinner cap)

Biplane:

Wingspan \* 1,05  $\leq$  length over all

Excluded of this rule are all airplanes, where the original plane excides these limits. In this case the usage of such an model has to be reported to the Sportreferent and the evidences have to be attached.

The Sportreferent reserves the right to carry out measurements of the models and optionally exclude pilots in violation of the rules of competition. The result achieved so far is deleted.



The installation and the usage of Gyro-systems (1, 2 or 3 axis) during the contest is not allowed.

If using receiver systems with integrated gyro functionality, the pilot has to make sure, that the gyro is permanently switched off! In case of suspicion the contest director has the possibility to cause an investigation. In case of a violation the pilot will be disqualified from the contest. All his results so far are cancelled.

In case of exclusion of a pilot, due to technical lack, the Sportreferent supports the decision made by the contest director of the local club.

One plane can be flown by two or multiple pilots during the contest.

## Judging of the maneuvers

The flight maneuvers are judged by 5 judges by scores between 0 and 10 points in half point steps.

There is no limitation of the flight box. Single exception is the safety line, which will be determined before starting the contest. It limits the airspace towards the judges/spectators and will not be crossed. Crossing the safety line will end up with a zero result for the flight of the pilot.

The actual directives of the organization IMAC applies as base for the judgement (see attach 4).

The highest and the lowest score of each maneuver is deleted and the left three scores are added and multiplied with the corresponding k-factors.

In addition to the scores for the flight maneuvers, an additional category is judged, which should evaluate the overall impression of the flight. This category is multiplied with the K-factor 30. The judgement is based on these subjects:

- power management (how is the pilot using the throttle, NOT the noise)
- placement of the maneuvers
- combining the maneuvers

A pilot marks the entry in the flying box with the call „ In the Box“. The end of the flight is marked by the call „ Out of the Box“.

Before and after the score flight the pilot is not allowed to do any aerobatic maneuvers, excluded maneuvers to enter and exit the flight box.

### Freestyle:

The freestyle has a length of 4min +/- 10sec.

It is judged in following categories:

- Difficulty: 20K
- Diversity: 20K
- Harmony: 30K
- Precision: 30K
- Overall: 30K
- Show effects: 10K

For the judging of the show effects these directives are used:

The maximum of points is 10.

Smoke (over mufflers or EL-Smoke): 0 (no smoke) – 2 (less smoke) – 4 (thick smoke)

Streamers: 0 (no streamers) – 1 (streamers throw able) – 2 (streamers rolled out, throw able and used good)

Smoke cartridges: 0 (no smoke cartridges) – 1 (1 smoke cartridges at the fuselage) – 2 (2 smoke cartridges at the wings)

Confetti: 0 (no confetti) – 2 (throw able confetti); only biological

In these special cases the pilots receive a zero (counts for every judged flight):

- Crossing the safety line: is this line crossed during the flight pilot receives 0 points, excluded start and landing
- Loosing part of the plane: loosing part of the plane is judged with 0 points (except parts of the showeffects)
- Touching the ground: touching the ground (included tree or grass) results in 0 points

## Attach

Attach 1 – Known sequence Unlimited 2019

Attach 2 – Known sequence Intermediate 2019

Attach 3 – Known sequence Basic 2019