

AAC REGULATIONS - Appendix 2-9 - Departure and Re-join Procedures

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1.0 Introduction

- 1.1 The traffic environment around an airfield holding an aerobatic competition can be hectic and daunting to new competitors. It is also potentially hazardous if pilots are not familiar with the procedures in place. It is a dynamic environment with highly manoeuvrable aircraft that can change the traffic situation rapidly. This is in contrast to the normal staid pace of a rural or training airfield traffic pattern.
- 1.2 Though a Traffic Advisory Service is usually provided during club competition and training activities, the pilot is responsible for safety and complying with the usual airfield traffic procedures.
- 1.3 The pilot is the Aircraft Captain and this responsibility is not reduced by the presence of an advisory service.

2.0 Key Regulations and NOTAM

- 2.1 Normal circuit procedures dictate no turning on departure below 500ft and turning in the approved circuit direction (AIP ENR 1.1 para 7). Joining the circuit in a standard manner is also a requirement. Radio and circuit procedures in the vicinity of a non-controlled aerodrome are stipulated in CAR 166.
- 2.2 At some competition venues there may be a NOTAM in place altering circuit direction on some runways for the duration of the competition, but all the other regulations remain in effect and must be complied with. The traffic advisory procedures are overlaid on this and do not replace them.

3.0 Aircraft Flow

- 3.1 The AAC has developed a standardized traffic flow for competitions over the years which works well and has proven itself by the history of safe operation. These procedures are detailed in the following.

4.0 Low Performance Aircraft - Departure

- 4.1 Lower performance aircraft in the lower categories (typically Sportsman and below) use a holding area short way (<1nm downwind) from the box. They are briefed by the Starter to go to the hold and told when to start their engine. They then warm-up, taxi, take-off and depart below any traffic in the box above (1500ft box lower level). They remain on CTAF while climbing and holding, making the usual departure calls on CTAF frequency

Note: Planned holding altitude should be such that the pilot can return to the box expeditiously with sufficient energy to start the sequence or perform the safety figures without having to re-climb to altitude.

- 4.2** When the CJ is ready they will ask Traffic Advisory to contact the holding pilot to switch to box frequency and call the CJ. The pilot will call the CJ: '*Chief Judge Competitor XX*', the CJ will then usually clear the competitor into the box '*Competitor XX the box is clear*' or pass any other necessary instruction. The pilot will then track for the box without delay, or do as directed if otherwise.

Note: An elongated figure-eight holding pattern, aligned perpendicular to the official wind direction works well. All turns should be 'hot' or toward the box. Don't get blown downwind and too far away from the box. In this way the pilot can keep the box and the previous competitor visual at all times. When cleared in to the box you will be able to turn directly for the box from any position in the hold and descend/accelerate as required.

5.0 Higher Performance Aircraft – Departure

- 5.1** Higher performance aircraft (typically Intermediate and up) are capable of entering the box immediately after take-off without needing time to climb in the hold.
- 5.2** Typically the Starter will advise when to start and that you are cleared to '*contact the CJ after take-off*', or '*cleared direct to the box*'. Again, this does NOT authorize you to ignore normal circuit departure procedures.
- 5.3** Once after take-off checks are complete contact the CJ: '*CJ competitor XX*', the CJ should reply '*competitor XX the box is clear*' or '*competitor XX remain clear of the box*' or '*competitor XX fly the lower axes*'.

Note: The Starter must use their judgement as to when to start the next competitor to keep an efficient flow going. Sometimes the CJ will direct this via radio, if the judges need time for a de-brief etc. The pilot also, if experienced, will be aware of when they need to start to taxi, warm-up, back-track etc. to fit into the flow smoothly given the rhythm of the flying. The starter should heed their advice.

*Normally the departing pilot needs to roll for take-off once the preceding pilot has waggled out and broadcast on CTAF. The departing pilot can then reply with their '*rolling runway XX*' call and departure intentions knowing the preceding pilot's re-join plan. They can then arrange their own separation without Traffic Advisory having to repeat their broadcasts.*

- 5.4** To re-iterate, the pilot must still climb straight ahead to 500ft prior to turning, in the correct circuit direction, for the box. This can normally be planned in such a manner that it is not an inconvenience, particularly if the box axes must be flown. Regardless, the time can be spent productively in checking the wind on different legs during climbing prior to diving in for the safety figures, for example.

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- 5.5** Unlike at an International event where the airfield is usually closed to other aircraft and the airspace belongs to the competition, we must operate without confusing or conflicting with normal traffic. Thus we must adhere to the statutory procedures for practical reasons as well as legal.

Note: Nothing upsets local airfield users and transiting traffic, not to mention CASA, like seeing aerobatic show-offs in high-performance aircraft making split-arse climbing turns at zero feet after take-off, and apparently ignoring all the rules. We may be able to do this with safety, but self-discipline must prevail. Being good citizens is important to maintain and enhance the integrity and professional respect of the sport in the aviation community.

6.0 Flying the Box Axes

- 6.1** The departure procedure is varied for the first flight of a category or after a significant delay when the box lower level must be flown for the judges to calibrate their eyes.
- 6.2** For this case the Starter will advise the pilot that they are to fly the lower axes and to contact the CJ once their after take-off checks are complete. Sometimes the phrase *'you are cleared direct to the box'* is used – this does not authorize you to ignore the usual CTAF radio calls and circuit departure procedures. You still must climb straight ahead to 500ft and initially turn in the approved circuit direction.
- 6.3** You should not enter the box until in contact with the CJ and have been advised *'competitor XX fly the lower axes'* or *'competitor XX the box is clear'*.

7.0 Circuit Re-Join Procedure – All Aircraft

- 7.1** Once your sequence is completed remain, or turn back towards, the box, while switching to CTAF frequency. Make your CTAF call and usually a plan to depart from the box to join an upwind or crosswind leg of the circuit works well.
- 7.2** Unless you are confident you have good traffic awareness, remain in the box area until other traffic, or traffic advisory, can reply. Use this time to descend/climb to circuit altitude, get your head together, and cool down.
- 7.3** Listen for the next pilot's *'rolling runway XX...'* call or Advisory's advice, so you know where traffic is in the flow. The next pilot will be keyed up and tense, just like you were ten minutes ago, so be considerate and don't cause them unnecessary delays.

8.0 Conclusion

- 8.1** The aerobatic box is our safety zone. Several sets of eyes are always on you (CJ and judges, radio operator, other pilots). If you lose orientation or situational

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awareness these eyes will probably see any hazards that may exist, and be able to provide pertinent traffic information to you. If you are confused or unsure of potentially conflicting traffic, keep your eyes out, stay in the box, and others will separate the traffic from you.