



GUIDELINES ON CONTEST COMMUNICATIONS

International Aerobatic Club, Inc.

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INTRODUCTION:

Communications are an essential part of an aerobatic contest. There are three different areas that should be addressed when planning a contest:

- VHF air-ground communications, now required at all aerobatic contests
- Ground communications between individuals performing support functions
- General communications between the contest officials and participants and at some contests, the public.

Each area has different requirements.

VHF AIR-GROUND COMMUNICATIONS:

VHF aircraft-band radios are required for the chief judge, the flight director/starter and the flagman (if used). FAA waivers now require the chief judge to have radio communications with the contestant when entering and competing in the aerobatic box. Waivers also require monitoring the local CTAF/Unicom frequency during aerobatic competition; usually accomplished from the flight director/starter position.* The flagman serves as the coordinator with other contest traffic at the runway access point. Spare radios, batteries, or other power sources must be available to insure adequate VHF communications.

*Note: The CTAF/Unicom monitor is required to have contact with the chief judge.

GROUND COMMUNICATIONS:

Ground communications between officials or individuals in support functions normally use FM "business-band" hand-held radios such as those used for air shows or other public events. Radios with a minimum of two channels are recommended for large contests using IAC rules; the type that allow all users of the same channel to monitor all communications on that channel, so that everyone can be aware of any changes without transmitting. Two channels are used: "administrative" and "flight operations". Any remaining channels may be used for extended conversations or for a separate "net" at contests where public attendance necessitates ticketing, crowd control or security communications. Each hand-held radio used for the contest should have a spare battery, which should be changed approximately halfway through the day. All radios and batteries must be recharged prior to and every night during the contest.

FM radios are limited to line-of-sight use and a "repeater" (an electronic device that receives and transmits the same message) is required at some contests due to obstacles, terrain or distance. When the repeater capability is limited to only one channel, priority should be given to the flight ops channel. When a repeater is used, the antenna should be mounted on a high point such as the top of a building.

The chief judge position(s) serves as a communications center using both VHF and FM radios. Metal used in shades in this position and in sighting devices or shades at the boundary judge positions may have a detrimental effect on the performance of the radios and consideration should be given to the use of external antennas mounted above the metal area when problems occur. Testing should be done from each chief judge position to each boundary position and the flight director/starter position prior to the contest. The use of a repeater may not be necessary when external antennas are installed.

LARGE CONTESTS:

Radio/channel assignments for large contests should be made in accordance with the following table. Positions shown in the flight ops column require individual radios. The general net depicts separate function titles although one person may perform two or more of the functions shown. These functions should be combined during contest planning and the required number of radios adjusted.

General

- | | |
|-------------------------|------------------------|
| ◆ Contest Director | ◆ Safety Director |
| ◆ Asst Contest Director | ◆ Judge Transportation |
| ◆ Registrar | ◆ Boundary Transp. |
| ◆ Scoring Director | ◆ Score Runner |
| ◆ Volunteer Coordinator | ◆ Refreshment Runner |
| ◆ Medical Director | ◆ Security |

Flight Ops

- | | |
|----------------------|-----------------------|
| ◆ Chief Judge | ◆ Boundary Judge |
| ◆ Flight Director | ◆ Starter |
| ◆ Flagman (if used) | ◆ Technical Inspector |
| ◆ Contest Jury Pres. | ◆ Narrator (if used) |



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Regional Contests:

Regional contests require a minimum of six single channel radios:

- Chief Judge
- Boundaries (2)
- Starter
- Contest Director
- Volunteer Coordinator

They all require radios for efficient contest operation. Single channel radio use requires no transmissions except boundary infringement calls be allowed when a competitor is in the box. The other guidelines apply to all contests.

Radio Procedures:

Each person assigned a radio must monitor only the assigned channel, transmit only when necessary and be as brief as possible. When two nets are in use, the flight ops net may be accessed from the other net only when absolutely necessary to avoid interference with boundary calls. All other communications must use the general net.

When a repeater is in use on a channel, it is necessary to key the microphone a moment before speaking or the initial portion of the transmission will be missed.

General Communications:

Large contests require a public address system on the flight line and contestant areas to allow contest officials to make general announcements concerning briefings, weather, schedule changes or other items of general interest. This may be accomplished utilizing a PA system installed for spectators providing it is clearly audible in the contestant area. Otherwise, a separate system is required for this purpose. PA systems must be placed where they cannot be heard in the judge's area during competition.

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Radios For Flight OPS:

Normal VHF radio procedures appropriate for the contest airport will be used. The contest organizers should coordinate any special requirements and discrete frequencies with airport and air traffic officials prior to the contest and include all special procedures in the contest briefing.

Flag:

Contests often use a flagman (call sign: flag) at the takeoff runway access point as a coordinator and communicator for release of competition aircraft. Competitors are required to accomplish any warm up and run up procedures before reaching the flag position and be in all respects ready to go. Flag will then coordinate the departure and use either radio or hand signals to hold or release the aircraft.

Holding:

Holding patterns are used to minimize the time between competitors in the box. The position and altitude of the holding pattern will be included in the briefing. Competitors will go to the holding pattern immediately after takeoff, change to the assigned box frequency and hold while monitoring the frequency until called by name by the chief judge. The competitor cannot initiate a call to the chief judge when holding except in an emergency; but may return to the starter's frequency for required information. When called, competitors will acknowledge the call both on the radio and confirm with a wing wag, then proceed to the box. Competitors are to hold as close to the designated area as possible to minimize the time necessary to enter the box. **Note:** No aerobatic maneuvers are permitted in the holding pattern.

Competition Box:

The only communication from the chief judge during competition in the box will be an alert or recall for emergency or meteorological reasons. Should the competitor terminate the flight prematurely for physical, mechanical or meteorological reasons, a transmission by the competitor stating the reason will allow the chief judge to alert contest officials for the appropriate response.

Radio Procedures for Boundary Judges:

IAC contests require a boundary call be made each time a competitor's aircraft crosses a boundary. These calls are time critical and include the initial entry to begin a sequence. The radio call should include the official name of the boundary: "IN SOUTH". Once a sequence has started, the boundary judge must call and record each crossing: "OUT WEST" followed by "IN WEST" when the competitor re-enters. The boundary judge must also record the figure



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number when the contestant went out and the figure number of re-entry if different.

The assistant chief judge will request a summary at the end of the sequence, for example:

“SOUTHWEST CORNER SAY OUTS.”
Southwest response: “SOUTHWEST CORNER HAD ONE OUT SOUTH ON FIGURE EIGHT. ONE OUT WEST ON

FIGURE FOURTEEN, TOTAL OF TWO OUTS” or “SOUTHWEST CORNER HAD ZERO OUTS.”

Any questions such as whether the contestant had finished one figure and started another before re-entry may be resolved after the summary. Contest officials will retain the record sheets from each boundary judge in case of disputes.