INTERNATIONAL AMATEUR RADIO UNION — Region 1

RULES FOR CHAMPIONSHIPS IN AMATEUR RADIO DIRECTION FINDING

PART B — COMPETITION

version 2026

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13. Event information

13.1 The official language during the entire event shall be English. Official information shall be given in writing. It may be given orally only in urgent cases and in response to questions at team officials' meetings.

13.2 Information from the organiser and / or the ARDF WG shall be given in the form of bulletins. Bulletins shall be published on, or linked to, the event website and the IARU Region 1 ARDF WG website. Bulletin 1 shall be sent to all societies being known as interested in ARDF and the Chairmen of the other two Regional ARDF specialized bodies. Bulletins 2 and 3 shall be sent to the societies having declared their intention to participate. Bulletin 4 (several copies) shall be handed over on arrival to each team.

13.3 Bulletin 1 shall be published 10 months before the event, Bulletin 2 shall be published 6 months before the event and Bulletin 3 shall be published 2 months before the event. Bulletin 4 shall be handed over on arrival of the competitors.

13.4 Bulletin 1 (invitation) shall include the following information:
- organising Society with address, telephone/fax number, e-mail and event website address
- venue
- dates and types of competitions
- any participation restrictions
- expected starting fee and costs of accommodation and board
- any peculiarities of the event
- latest date to reach the organiser and address for Letters of intent

13.5 Bulletin 2 (event information) shall include the following information:
- all information given in Bulletin 1
- names of the Chairman of the Jury and Siting Referee
- entry fee for competitors and team officials
- types and cost of accommodation and board
- bank / account details for payments and latest date for funds to be received to avoid late payment fees
- latest date for acceptance of entries
- description and type of any transport offered
- event programme
- maximum number of officials per team
- any permitted deviations from the rules
- directions for the registration of media representatives and any extra representatives of the societies
- directions for obtaining entry permits (visas)
- description of terrain, climate and any hazards
- opportunities for training
- out-of-bounds areas
- the exact location of each competition area and its finish (if they have been decided)
- description of the marking devices
- the technical parameters of the transmitters to be used for each competition
  - the frequencies and output RF power of transmitters
  - description (type, gain, height above the terrain) of the 144 MHz antennas
  - description (length, grounding system) of the 3,5 MHz antennas
- notes on competition clothing, if necessary
- a recent orienteering map(s) of the competition areas, if available

13.6 Competition areas published in bulletin 2 shall be declared as out-of-bounds for all participants from the date of publication.

13.7 Bulletin 3 (Additional event information) shall include the following information:
- detailed programme of the event
- details of the terrain
- summary of entries received
- electronic marking system description, if not Sportident classic system
- size of the maps (not the paper on which it is printed), scales and vertical contour intervals of the maps for each competition
- address, phone number and e-mail address+ of the competition office
- details of accommodation and food
- the exact location of each competition area and its finish
- transport schedule
- team officials' meetings

13.8 Bulletin 4 (Final details) shall include following information:
- detailed programme of the event
- any anti-doping requirements
- all special rules relevant to the event
- any additional regulations and any rule deviations that have been approved

- information about each competition:
  - time limit
  - list of transmitter and band assignments for each category.
  - size of the map (not the paper on which it is printed), scale and contour interval of the competition map
  - start and finish area arrangement, length of corridors
  - technical parameters of the transmitters to be used for each competition
    - frequencies and output RF power of transmitters
    - description (type, gain, height above the terrain) of the 144 MHz antennas
    - description (length, grounding system) of the 3,5 MHz antennas
- start group allocation form for each competition to be filled-in by team leaders and deadline for delivery
- all other detailed information about the event site and event itself

14. Competition formats

14.1. ARDF competitions are organized in the following formats:
- classic competition (amateur radio band 3,5 MHz)
- classic competition (amateur radio band 144 MHz)
- sprint (amateur radio band 3,5 MHz)
- foxoring. (amateur radio band 3,5 MHz)

14.2 Separate competitions shall take place on each band on different days.

14.3 There is no team classification in the Sprint and Foxoring competitions.

15. Categories

15.1. Competitors are divided into the categories according to their sex and age.

15.2. Categories:

Women (W)	Age	Men (M)	Age
W19	19 and younger	M19	19 and younger
W21	regardless of age	M21	regardless of age
W35	35 and older	M40	40 and older
W45	45 and older	M50	50 and older
W55	55 and older	M60	60 and older
W65	65 and older	M70	70 and older

15.3 Competitors belong to the M19 or W19 category up to the end of the calendar year in which they reach the age of 19.

15.4 Men competitors aged 40 or older or women competitors aged 35 or older belong to each category from the beginning of the calendar year in which they reach the given age.

15.5. A competitor may start in different categories in different competitions (provided he/she meets the age/sex requirements for both categories).

15.6 Each society may enter up to three competitors in each category for each competition.

15.7 To qualify as an IARU World Championship, a minimum of six societies must have applied to participate.

15.8 To establish any official category, a minimum of three societies must have entered.

16. Training / model event

16.1 For training purposes the organising society shall offer a model event on both bands on the day prior to the first competition to demonstrate the transmitter features, the set-up of transmitters and antennas, the registering devices etc., which will be used in the competitions. If possible, the terrain type and map quality shall also be similar to the competitions.

16.2 Competitors, Jury members, team officials, IARU officials and media representatives shall be invited to participate in the training event.

16.3 Equal opportunities for training shall be offered to all societies.

16.4 Transmitters, antennas, flags and registering devices used in the training event, their installation and setting shall be identical to those used in the competitions.

17. Starting order

17.1 The start draw shall be supervised by an ARDF International Class Referee who is a member of the Jury. The start draw may be public or private. It may be made by hand or by computer. The start draw shall be done separately for each competition.

17.2 The start list shall be published on or before the day prior to the competition and before the team officials' meeting.

17.3 All competitors and teams correctly entered shall be drawn, even including competitors who might not have arrived at that time.

17.4 At or before the event check-in and in no circumstances later than 15:00 on the day before the first competition, each team shall allocate its competitors to 3 starting groups, separately for each competition and each category. If a team fails to allocate its competitors to starting groups in time, competitors will be allocated in the order in which they are entered.

17.5 The starting order shall be drawn at random. The draw shall be made in three starting groups (early, middle, late).

17.6 Competitors from the same society and category may not start consecutively. If they are drawn to start consecutively, the next competitor shall be inserted between them.

17.7 The competitors within one category start at equal start intervals. The normal start interval is 5 minutes.

17.8 All competitors of a particular category shall start in the same start corridor and at the beginning of the same minute of the 5-minute cycle.

17.9 Competitors participating unofficially shall not start until 15 minutes after the last official competitor has started.

17.10. Changes to the start list by substituting a competitor for another due to illness must be requested at the team officials' meeting on the day before the competition at the latest. The substitution must be approved by the Jury. The substitutes can be taken only from the team originally entered.

18. Team officials' meeting

18.1 A team officials' meeting shall be organised on the day prior to each competition. This meeting shall start not later than 19.00 hours. The Chairman of the International Jury shall lead or supervise the meeting.

18.2 All competition material (start number bibs, start lists, transport schedules, latest information, etc.) shall be handed out well before the meeting starts.

18.3 Team officials shall have the opportunity to ask questions during the meeting.

19. Terrain

19.1 The terrain shall be suitable for setting competitive ARDF courses without any serious hazards to competitors and avoiding man-made objects which could interfere with direction finding activities.

19.2 The competition area shall not have been used for ARDF for as long as possible prior to the championship – certainly not for the previous two years - to guarantee fair play.

19.3 The competition area shall be placed out-of-bounds to ARDF competitors as soon as it has been selected. All relevant information published in the country of the championship should be handed over to the ARDF WG Chairman for further dissemination.

19.4 Any rights of nature conservation, forestry, hunting, etc. in the area shall be respected.

20. Courses

20.1 The Principles for ARDF Course Planning (see Appendix 2) shall be followed.

20.2 The standard of the courses shall be worthy of international ARDF events. The technical and navigational skill, concentration and running ability of the competitors shall be tested. All courses shall call upon a range of different ARDF techniques.

20.3 Transmitters including the finish beacon shall be located not less than 400 meters apart. The transmitter nearest to the start shall be located not less than 750 meters from the start. Transmitters on different bands shall be located not less than 200 m apart. Both finish beacons are at the same location.

20.4 Course lengths shall be given as the length of the shortest viable route from the start line via the transmitters in optimum order to the finish line.

20.5 Total climb along the shortest viable route shall not exceed 6% of the course length.

20.6 The effective course length is defined as the course length (see 20.4) + 10 times the total climb along it.

20.7 Number of transmitters and course lengths assigned to particular categories:

Category	number of transmitters	effective course length
W19	4 + finish beacon	6…8 km
W21	4 + finish beacon	7…9 km
W35	4…5 + finish beacon	6…8 km
W45	3…4 + finish beacon	5…7 km
W55	3…4 + finish beacon	4…6 km
W65	3…4 + finish beacon	4…6 km
M19	4 + finish beacon	8…10 km
M21	5 + finish beacon	9…12 km
M40	4 + finish beacon	8…10 km
M50	4…5 + finish beacon	6…8 km
M60	3…4 + finish beacon	5…7 km
M70	3…4 + finish beacon	4…6 km

20.8 The composition of the courses (transmitter numbers assigned to particular categories) shall be defined by the siting referee and published in Bulletin 4.

20.9 The Siting Referee shall calculate the parameters defined in rules 20.5 and 20.7 for each of the age categories in each course that is set, and forward the results to the Chairman of the Jury at least one calendar month prior to the event. The approval of the Chairman of the Jury shall be obtained prior to the overprinting of the maps with course information such as the locations of the start and finish.

21. Time limit

21.1 The time limit is the period in which competitor must complete the race. Competitors whose time exceeds the time limit shall not be classified.

21.2 The time limit for each competition shall be decided by the siting referee and approved by the Chairman of the Jury. The time limit shall be announced in Bulletin 4.

22. Restricted areas and routes

22.1 Rules set by the organising society to protect the environment and any related instructions from the organiser shall be strictly observed by all persons connected with the event.

22.2 Out-of-bounds or dangerous areas, forbidden routes, line features that shall not be crossed etc. shall be described in the information and marked on the map. If necessary, they shall also be marked on the ground. Competitors may not enter, follow or cross such areas, routes or features.

22.3 Compulsory routes and crossing points shall be marked clearly on the map and on the ground. Competitors shall follow the entire length of any marked section of their course.

22.4 The use of official transport during the Championship may be declared mandatory by the organiser.

23. Maps

23.1 Maps and additional overprinting shall be drawn and printed according to the IOF International Specification for IOF Maps. The map scale shall be 1:15000 or 1:10000. Deviations need approval by the ARDF WG.

23.2 Errors on the map and changes which have occurred in the terrain since the map was printed shall be overprinted on the map if they have a bearing on the event.

23.3 The competition map shall cover the whole competition area including start, finish beacon and all transmitters. The start, finish beacon, finish corridor and finish line shall be clearly marked on the map. The start is marked by a triangle (symbol 701), the finish beacon by a circle (symbol 702), the finish corridor by a dashed line (symbol 705) and the finish by two concentric circles (symbol 706).

23.4 Unless otherwise noted, the area covered by the map issued by the organiser shall be considered as the competition area.

23.5 The IARU and its member societies shall have the right of free reproduction of the event maps with courses in their official magazines.

24. Equipment used by competitors

24.1 Every competitor shall have a direction finding receiver for the relevant band. The receivers shall meet the Technical Specifications for ARDF Equipment (see Appendix 1, section 1).

24.2 Start number bibs shall be clearly visible and be worn on the upper part of the body and on the back and front of the competitors. The bibs shall be made of durable, water resistant material, not smaller than A5 size, with contrasting figures at least 50% of the bib height.

24.3 As long as the rules of the organiser do not specify otherwise, the choice of clothing and footwear shall be free.

24.4 On the day of the competition, the use of any telecommunication device by competitors or team officials in the starting and/or competition area is prohibited until permitted by the organiser. The penalty for this shall be disqualification. If the team official breaks this rule, the whole team shall be disqualified.

25. Control cards and registering devices

25.1 Only ARDF WG approved control cards and registering devices may be used – see Appendix 2.

25.2 Competitors must have the opportunity to practise the control cards at the model event.

25.3 Competitors shall be responsible for registering at each transmitter using the registering device provided. They are responsible for correct markings which must be clearly identifiable.

25.4 Missing or unidentifiable control marks shall not be considered, unless it can be established with certainty that the competitor visited the transmitter and that the mark missing or unidentifiable is not the competitor's fault.

25.5 Competitors who lose their control cards shall be disqualified.

26. Start

26.1 On arrival at the competition area, competitors shall place their receivers at the point indicated to them by the referee. Spare receivers and components, clearly marked as property of a particular team or competitor, shall be placed at an indicated point just beyond the starting line beside the starting corridor. All transmitters shall remain silent until collection of the receivers is completed.

26.2 All competitors shall have at least 30 minutes for undisturbed preparation and warm-up at the start area. Only competitors who have not started and team officials shall be allowed to enter the warm-up area.

26.3 The following information shall be shown on a special board at the start area:

- time limit
- transmitter frequencies
- list of transmitter and band assignments for each category.
- start list
- first start time (in local time)
- sample of the flag and registering device
- the competition map without overprints
- clock showing the official time of the competition

26.4 The start shall be organised with a pre-start before the time start, situated at one edge of the warm-up area. The competitors' names shall be called or displayed. Beyond the pre-start, only competitors who are starting and media representatives guided by the organiser are allowed.

26.5 Competitors shall enter the pre-start area TEN MINUTES before their own start. At the same time, they shall be given their receivers and maps.

26.6 The start shall be organised so that later competitors and other persons cannot see the maps and the route choices of the starters.

26.7 When the starting signal is given, competitors may switch on their receivers and shall run along the starting corridor. Reaching the end, they shall start searching for the hidden transmitters. Competitors shall not stop in the starting corridor except for a receiver malfunction.

26.8 Competitors, whose receivers fail, may return within their own running time to the start line and take their spare receiver or parts from the referee. It is strictly forbidden to give or take any assistance to or from any person except referees.

26.9 At least two start corridors shall be provided by the organiser. They shall not be longer than 250 meters. The end of each corridor shall not be visible either from the start area or from any part of the other corridor(s). The terrain at the end of the starting corridors should offer normal runnability. The end of the start corridor shall be clearly marked.

26.10 Competitors who are late for their start time through their own fault shall be permitted to start. The starting referee shall determine at which time they may start which shall be as soon as possible but taking into

consideration possible influence on other competitors. These late competitors shall be timed, however, as if they had started at their original start time.

26.11 Competitors who are late for their start time because of a fault of the organiser shall be given a new start time.

27. Transmitters

27.1 Transmitters used at IARU ARDF Championships shall meet the Technical Specifications for ARDF Equipment (see Appendix 1, section 2).

27.2 The antenna installation shall not be changed during the competition.

27.3 All transmitters including the beacon(s) shall be clearly audible during the whole competition from the start point, using a receiver of average sensitivity. All transmissions shall be monitored and recorded by the organiser.

27.4 Transmitters begin to operate after all receivers have been collected at the start. Transmitters shall remain operating until the end of the time limit of the last competitor. The beacon transmitter(s) shall remain operating until all competitors have finished.

27.5 In the event of a thunderstorm, the Chairman of the International Jury is entitled to recall the competition immediately. In this case, all transmitters except for finish beacon(s) will be switched off. Finish beacon(s) remain in operation until all competitors reach the finish.

27.6 If the authorities of the organising society make any transmitter identification compulsory, such identification can only be transmitted during the active minute.

27.7 The order in which competitors search for and discover the transmitters is entirely at their discretion except for the finish beacon, which shall be registered as the last one of the transmitters.

27.8 The finish beacons shall be placed at the entrance of the finish corridor. They shall be registered in the same way as other transmitters. Beacons for both bands share one flag and one registering device.

27.9 All transmitters shall be marked by a flag consisting of three squares 30 x 30 cm arranged in a triangular form. Each square shall be divided diagonally, one half being white and the other orange.

27.10 The flag shall be close to the transmitter antenna and not more than 4 meters away. The flag shall be visible to competitors when they reach the transmitter antenna.

27.11 To prove that competitors have visited each transmitter, there shall be at least two or more registering devices in the immediate vicinity of each flag.

27.12 Each transmitter must be easily recognizable by its code number, which shall be fixed to the flag or to the registering device for easy identification by the competitors. In addition, there must be another clear sign indicating the frequency band of the transmitter.

27.13 All transmitters shall be guarded.

27.14 The time at which each competitor finds a transmitter shall be recorded.

28. Transmitters arrangement

28.1 Classic competitions are organised on both the 3,5 MHz and 144 MHz bands simultaneously. Categories are divided into two groups: one group contains categories M19, M21, M40, W19 and W21, the other group contains categories M50, M60, M70, W35, W45, W55 and W65. On the first competition day, one group runs on the 3.5 MHz band and the other group on the 144 MHz band. On the second competition day, the bands are swapped.

28.2 There are 12 transmitters in the competition area, 6 on each band. Transmitters shall operate on each band in the following sequence:

transmitter	code sent	frequency	operating period
finish beacon	MO	A	continuously
transmitter No.1	MOE	B	in the first minute
transmitter No.2	MOI	B	in the second minute
transmitter No.3	MOS	B	in the third minute
transmitter No.4	MOH	B	in the fourth minute
transmitter No.5	MO5	B	in the fifth minute

– of the 5-minute cycle, starting at 0:00.

29. Finish and time-keeping

29.1 The competition ends for a competitor when the finish line is crossed. When using an electronic registration system, the competition ends for a competitor by the registration at the finish line

29.2 The finish corridor begins at the finish beacon and ends at the finish line. Its entrance shall not be wider than 10 m. It shall be clearly marked on both sides by uninterrupted tape. The last 20 m shall be straight. The corridor should normally be no longer than 250 m and its length shall be indicated by the siting referee at the team officials meeting a day prior to the competition.

29.3 The finish line shall be at least 3 m wide and shall be at right angle to the direction of the run-in. The exact position of the finish line shall be obvious to approaching competitors. Competitors in the finish corridor may run only in the direction from the beacon towards the finish line.

29.4 The finish time shall be measured when the competitor's chest crosses the finish line. When using an electronic registration system, the finish time is given by the registration at the finish line. Times shall be rounded down to whole seconds. Times shall be given in either hours, minutes and seconds, or in minutes and seconds only.

29.5 Having completed the competition, a competitor may not re-enter the competition terrain without the permission of the organiser. A competitor who retires shall announce this at the finish immediately. That competitor shall in no way influence the competition nor help other competitors.

29.6 There shall be medical facilities and personnel at the finish, who are also equipped to work in the forest.

29.7 The time-keeping system shall meet the Technical Specifications for ARDF Equipment (see Appendix 1, section T3).

30. Results

30.1 The place of an individual competitor depends on (first) the number of transmitters found and (second) his or her running time. Only transmitters which are scored for the particular category are considered. Competitors who have failed either to find any transmitter other than the finish beacon or who have exceeded the time limit, shall not be classified.

30.2 The place of a team depends on (first) the sum of transmitters found and (second) the sum of times reached by the two classified team members possessing the best results.

30.3 Two or more competitors or teams having the same result shall be given the same placing in the results list. The position(s) following the tie shall remain vacant.

30.4 Provisional results shall be announced and displayed in the finish area during the competition. The official results shall be published not more than 2 hours after final approval of the provisional results by the Jury. They shall be handed out on the day of the competition to each team manager and to accredited media representatives and presented openly at three different places for general information at least.

30.5 The official results shall include all participating competitors and teams.

30.6 At the end of the championship every Jury member, team leader and accredited media representative shall receive an official results list and the competition maps. Not more than one month after the event official results lists, competition maps with course details and further reports shall be published on or linked to the event website and IARU Region 1 ARDF WG website and sent in electronic form to every participating society. Further result lists and maps may be sold at a small charge to all interested.

31. Prizes

31.1 The title of World Champion or Regional/Continental Champion shall be awarded for each competition and for each official category separately.

31.2 The following prizes shall be awarded in all competitions:

- 1st place Gold medal and certificate
- 2nd place Silver medal and certificate
- 3rd place Bronze medal and certificate

31.3 If two or more competitors or teams have the same placing, they shall each receive the appropriate medal and/or certificate. The position(s) following the tie shall remain vacant.

31.4 In the team classification, each classified member of the team shall receive the appropriate medal and/or certificate.

31.5 The organiser shall arrange a dignified prize-giving ceremony.

32. Fair play

32.1 All persons taking part in an ARDF event shall behave with fairness and honesty. They shall have a sporting attitude and a spirit of friendship. Competitors shall show respect for each other, for officials, journalists, spectators and the inhabitants of the competition area. The competitors shall be as quiet as possible in the terrain.

32.2 It is absolutely forbidden to give or take any assistance to or from any person, including competitors, or to utilize any means of transport, except:
- assistance provided by referees within the scope of their defined duties, as long as that assistance is equally available to all competitors;
- it is the duty of all competitors to help injured runners. No competitor will be disqualified for giving or receiving such an assistance, as long as he or she does not gain competitive advantage by doing so.

32.3 Doping is forbidden. The ARDF WG or during a championship the Jury may require doping control procedures to be conducted.

32.4 Strict secrecy shall be maintained regarding the courses and starting areas.

32.5 Surveying or training in the area declared out-of-bounds by the organiser is not allowed. Attempts to gain any information related to the courses, beyond that provided by the organiser, are not permitted before and during the competition.

32.6 Team officials, competitors, media representatives and spectators shall remain in the areas assigned to them.

32.7 Members of the international Jury and transmitter operators shall neither disturb or detain any competitor nor supply any information whatsoever. They shall remain quiet, wear inconspicuous clothing and shall not help competitors approaching transmitters. This also applies to all other persons in the competition area.

32.8 A competitor who breaks any rule, or who benefits from the breaking of any rule, shall be disqualified.

Appendix 1: Technical Specifications for Amateur Radio Direction Finding Equipment

T1. Receivers

T1.1 Receivers and antennas of any type may be used by the competitors.

T1.2 Any receiver producing audible interference in the 3,5 MHz or 144 MHz band at a distance of 10 meters or more shall not be used in the competitions.

T1.3 The International Jury may require tests on any competitor's receiver prior to its use in the competitions.

T2. Transmitters

T2.1 It is the responsibility of the organising society to ensure that all transmitters in use comply with the relevant radio regulations in force in the country of operation with regard to their electric parameters, identification and to their being operated only by duly authorised operators.

T2.2 All transmitters within one competition shall have the same parameters and the same antenna installation.

T2.3 The frequency of the beacon transmitters shall be significantly different from the frequency of any other transmitter.

T2.4 When not scheduled to be transmitting, neither the transmitter nor its antenna may radiate any RF energy.

T2.5 Antennas shall provide omnidirectional horizontal radiation patterns.

T2.6 Specifications for the 3.5 MHz transmitters:

- Carrier frequency * 3,510 … 3,600 MHz
- Frequency stability better than 50 ppm
- Channel spacing between simultaneously working transmitters 20 kHz minimum
- Undesired products level conforming to the national regulations
- Output RF power 1 … 5 W
- Mode A1A (keyed unmodulated carrier)
- Keying speed 8 … 15 WPM
- Antenna vertical

T2.8 Specifications for the 144 MHz transmitters:

- Carrier frequency * 144,500 … 144,900 MHz
- Frequency stability better than 50 ppm
- Channel spacing between simultaneously working transmitters more than 200 kHz
- Undesired products level conforming to the national regulations
- Effective Radiated Power (ERP) 0.25 … 1 W
- Mode A2A (keyed carrier modulated by AF tone or continuous carrier modulated by keyed AF tone)
- Modulation depth 70 … 80 %
- Keying speed 8 … 15 WPM
- Antenna polarisation horizontal
- Antenna height 2 … 3 meters above ground level

Note: Carrier frequency ranges indicated in these Rules are those normally used by IARU Region 1 societies. Organisers in other Regions may employ different ranges to meet their band plan regulations. According to 13.5 of these Rules transmitter frequencies are to be stated in Bulletin 2, which is to be dispatched 6 months before the event.

T3. Time-keeping system

T3.1 The official competition time shall correspond to the official local time.

T3.2 The maximum deviation of the clocks at the start and finish line is ONE SECOND against the official time during the whole competition.

T3.3 The maximum deviation of the transmitting periods is FIVE SECONDS against the official time during the whole competition. The maximum transmitting overlap of two transmitters is FIVE SECONDS.

T4. Other equipment

T4.1 Any other equipment used by the organiser (service radio net, time-keeping system, computers, electronic marking devices etc.) shall not cause audible interference to competitors' receivers.

T4.2 The use of satellite positioning devices is allowed provided they do not contain digital map of the terrain ("non-mapping" devices).

Appendix 2: Approved registering devices

C1. The only automatically approved control registering system is the SportIdent classic system (it means NOT the Sportident AIR+ system).

C2. A backup unit must be present at each transmitter – either a second electronic unit or a pin punch. It is the competitor's responsibility to ensure that the electronic chip is held in the electronic registering device until the feedback signal has been received. If, and only if, no feedback signal is received, the competitor must use the backup unit.

C3. When using the pin punch backup, the competitor can punch either his/her map or start number bib. He/she is still responsible for the correct mark which must be clearly identifiable at the finish.

C4. The use of any other registering system requires prior approval of the ARDF WG.

Appendix 3: IARU ARDF International Class Referees

R1. An IARU ARDF International Class Referee is an experienced ARDF official supervising the strict observation of the Rules at ARDF events.

R2. There are two classes of IARU ARDF International Class Referees:
- Active Referees
- Honorary Referees

Unless otherwise noted, only Active Referees are considered in the ARDF Rules.

R3. Candidates for nomination as an IARU ARDF International Class Referees shall fulfil the following conditions:
- to be a holder of a valid amateur radio transmitting licence
- to be a member of an IARU member society
- to be presented by the ARDF manager of his society
- to be familiar with ARDF Rules, guidelines and all ARDF WG documents concerned
- to be able to communicate in English
- to be physically able to serve in the competition terrain

R4. Candidates for nomination as an IARU ARDF International Class Referee shall be submitted by his or her national society to the relevant regional ARDF WG confirming that the candidate fulfils the conditions listed in paragraph R3. The ARDF WG shall discuss the proposal and if satisfied, shall approve the candidate for the trial deployment at the forthcoming ARDF Championship.

R5. Before the first deployment the candidate shall prove his/her knowledge of the Rules and his/her English speaking ability at the examining committee consisting of the ARDF WG Chairman and two more Active ARDF International Class Referees.

R6. When the candidate passes his/her trial deployment successfully, the Chairman of the ARDF WG shall send the request for nomination (with his/her comment) to the relevant regional Executive Committee for final approval. After the approval of the Executive Committee, a written certificate is issued to the newly appointed referee.

R7. The number of IARU ARDF International Class Active Referees shall not exceed FIVE for each member society.

R8. Any referee who has not served once as a Jury member at national or international ARDF events organised by the IARU or one of its societies for five consecutive years, shall be moved automatically to be an Honorary Referee. At the start of every year the ARDF WG shall update the list of IARU ARDF International Class Referees, moving – if appropriate – inactive referees from the list of Active Referees to the Honorary Roster. Honorary Referees may be returned to the Active list by request of his or her society.

R9. Societies having IARU ARDF International Class Referees shall send, as at December 15th, a list to the chairman of the ARDF WG showing the activities of their referees in the year ended.

Appendix 4: Rules for the Youth Regional ARDF Championships

These Rules are based on the Rules for Championships in Amateur Radio Direction Finding. The points as stated below replace identically numbered points of part A and B of the Rules.

Y1.6 A Youth Regional ARDF Championship is the event to award the title of Youth Regional Champion in ARDF. A Youth Regional ARDF Championship is organised by an amateur radio society authorised by its corresponding IARU organisation.

Y3.1 A Youth Regional ARDF Championship is an annual event.

Y4.3 Applications are to be received by the Chairman of the ARDF WG not later than January 31st two years prior to the year of the Championship.

Y5.5 Not valid at Youth Regional ARDF Championships.

Y6.4 Not valid at Youth Regional ARDF Championships.

Y8.1 The International Jury for Youth Regional ARDF Championships shall consist of the following members:
- Chairman of the Jury
- Secretary of the Jury
- Siting referee
- representative of each participating society

Y8.2 The Chairman of the Jury at a Youth Regional ARDF Championship shall be an ARDF International Class Referee authorised by the relevant regional ARDF WG. The appointment shall be announced at least nine months prior to the Championship.

Y8.3 The referees in the competition area, at start and finish and the siting referee shall be experienced referees provided by the organising society.

Y8.4 The names of the members of the International Jury shall be recorded and announced at the first Jury meeting at the Championship at the latest.

Y15.2. Categories:

Women (W)	**Men (M)**	**Age**
W14	M14	14 and younger
W16	M16	16 and younger

Y15.3 Competitors belong to the particular category up to the end of the calendar year in which they reach the given age.

Y15.7 Each society may enter a team of up to five competitors in each category for the whole Championship (i.e., the same competitors must be entered for all races).

Y17.5.The starting order shall be drawn at random. The draw shall be made in five starting groups.

Y20.3 Transmitters including the finish beacon shall be located not less than 400 meters apart. The transmitter nearest to the start shall be located not less than 500 meters from the start.

Y20.7 Number of transmitters and course lengths assigned to particular categories:

Category	number of transmitters	effective course length
W14	3…4 + finish beacon	3…4 km
W16	3…4 + finish beacon	3…5 km
M14	3…4 + finish beacon	3…5 km
M16	3…5 + finish beacon	4…6 km

Appendix 5: Rules for the ARDF Sprint Competition

S1. General provisions

S1.1 The sprint event shall be organised in a forest or city park easily accessible by the public.

S2. Starting order

S2.1 The competitors within one category start at equal start intervals. Minimum start interval is 2 minutes.

S2.2 Competitors from the same society and category may not start consecutively.

S3 Race system

S3.1 The competition shall be run as two loops with a spectator run through the finish area between them.

S3.2 Each competitor runs through the start corridor, which leads to the area with transmitters No.1 to No.5 (slow keying). After finding all the required transmitters from this loop, he/she runs to the spectator control and through the spectator corridor to the area with transmitters No.1F to No.5F (fast keying). After finding all the required transmitters from this loop, the competitor runs to the finish beacon and through the finishing corridor to the finish line.

S3.3 The transmitters searched for on each of the loops are defined in advance but may be visited in any order. All transmitters searched for on each loop shall be on the same frequency.

S3.4 The finish beacon and the spectator control may be at the same place. In this case, there is no spectator control transmitter.

S4. Courses

S4.1 The transmitters shall be located not less than 100 metres apart and not less than 100 metres from the start.

S4.2 The beacon (B) and the spectator control (S), if this differs from the beacon, could be located less than 100 metres from the start.

S4.3 The course shall be planned for an expected winning time of 15 minutes in all categories.

S5. Maps

S5.1 The map for the sprint event shall be made at the scale 1:5000 or 1:4000, and shall not be more than 2 years old.

S5.2 The competitor receives the map along with the receiver in the pre-start area 2 minutes before the start. The start, finish beacon, spectator control, if this differs from the beacon, finish corridor and finish line shall be clearly marked on the map. The start is marked by a triangle (symbol 701), the finish beacon and spectator control by a circle (symbol 702), the finish corridor by a dashed line (symbol 705) and the finish by two concentric circles (symbol 706).

S5.3 The organisation of the finish area shall be explained to the competitors in advance along with the symbols on the map.

S6. Transmitters

S6.1 Transmitters with a lower output power (0.3…1W) shall be used in the sprint competitions.

S6.2 The beacon (B) and the spectator control (S), if this differs from the beacon, shall operate continuously on the frequencies different from the other transmitters and from each other.

S6.3 Two sets of five transmitters shall be used in the sprint event. Transmitters groups 1 to 5 and 1F to 5F shall operate on different frequencies and with different keying speeds.

Example of frequency and keying speed assignment:

frequency	function	code	speed
3,530 MHz	TX 1…5	MOE…MO5	10 WPM
3,550 MHz	spectator control	S	10 WPM
3,570 MHz	TX 1F (fast)…5F	MOE…MO5	15 WPM
3,600 MHz	finish beacon	MO	10 WPM

S6.4 Transmitters operate in the following sequence:

No. 1 and 1F	sending code MOE	in seconds 0 to12
No. 2 and 2F	sending code MOI	in seconds 12 to 24
No. 3 and 3F	sending code MOS	in seconds 24 to 36
No. 4 and 4F	sending code MOH	in seconds 36 to 48
No. 5 and 5F	sending code MO5	in seconds 48 to 60

– of a 1-minute cycle starting at 0:00

S6.5 Field transmitters have no flags and their registration devices stands are painted in red and white stripes. The finish beacon is equipped with at least two registering devices, especially if acting as the spectator control as well. The spectator control and the beacon are equipped with flags. Registering devices shall be placed not more than 1 m away from the antenna.

S6.6 The antenna grounding system shall be symmetrical around the vertical radiator to ensure precise aiming to the antenna.

S6.7 The beacon (B) and the spectator control (S), if this differs from the beacon, are registered as any other transmitter.

S6.8 The number of transmitters assigned to each age category is normally twice the number given in 20.7.

S7. Corridors

S7.1 The start corridor is the corridor that runs away from the start. The end shall be clearly marked and only after this point can the competitor start searching for the transmitters. The start corridor shall not be longer than 400 metres.

S7.2 When leaving the spectator control, competitors shall run along the spectator corridor. The spectator corridor shall not be longer than 300 metres. The spectator control shall be placed at the entrance to the spectator corridor.

S7.3 The finish corridor is the corridor that shall be run from the beacon to the finish line. The finish beacon shall be placed at the entrance to the finish corridor. The finish corridor shall not be longer than 400 metres.

S8. General arrangements

S8.1 Competitors waiting for the start shall be well separated from any other people (spectators and competitors who already finished their races) once the first competitor has started.

Appendix 6: Rules for the ARDF Foxoring Competition

F1. Basic explanation

Foxoring is a special format of the ARDF competition. Its main features are as follows:

- At the start, competitors get competition map with marked start, finish beacon and nominal positions of the transmitters.
- Transmitters except for the finish beacon are placed close to their nominal positions marked on the maps.
- All transmitters except for the finish beacon are very weak and therefore audible only at the close vicinity of the antenna. All transmitters operate continuously.
- The RF field strength of each transmitter is adjusted so that :
  - the transmitter is clearly audible at its nominal position marked on the map AND at the distance of 30m from its real position
  - the transmitter is NOT audible at the distance of 250m from its real position.
- Competitors shall run to the close vicinity of the transmitters by means of the map and then complete the final approach by means of the direction finding receiver.

The Foxoring Rules are based on the Rules for Championships in Amateur Radio Direction Finding. The points as stated below replace identically numbered points of part A and B of the Rules.

F16. Training / model event

F16.1 For training purposes the organising society shall offer a model event on the day prior to the competition to demonstrate the transmitter features, the set-up of transmitters and antennas, the registering devices etc., which will be used in the competitions. One transmitter of each frequency which will be used in the competition shall be installed.

F17. Starting order

F17.7 The competitors within one category start at equal start intervals. Minimum start interval is 2 minutes.

F17.8 All competitors of a particular category shall start in the same start corridor

F20. Courses

F20.3 Transmitters including the finish beacon shall be located not less than 250 meters apart. The transmitter nearest to the start shall be located not less than 250 meters from the start.

F20.7 Number of transmitters and course lengths assigned to particular categories:

Category	number of transmitters	effective course length
W19	5…8 + finish beacon	4…6 km
W21	6…10 + finish beacon	5…7 km
W35	5…8 + finish beacon	4…6 km
W45	4…7 + finish beacon	4…6 km
W55	4…7 + finish beacon	3…5 km
W65	4…7 + finish beacon	3…5 km
M19	6…8 + finish beacon	6…8 km
M21	8…10+ finish beacon	7…9 km
M40	6…8 + finish beacon	6…8 km
M50	5…8 + finish beacon	5…7 km
M60	5…8 + finish beacon	4…6 km
M70	4…7 + finish beacon	3…5 km

F23. Maps

F23.1 Maps and additional overprinting shall be drawn and printed according to the IOF International Specification for IOF Maps. The map scale shall be 1:15000 or 1:10000. For categories W55+ and M60+, also 1:7500 scale is allowed and recommended. Deviations need approval by the ARDF WG.

F23.3 The competition map shall cover the whole competition area including start, finish beacon and all transmitters. The map start (the point where competitors obtain the maps), nominal positions of transmitters assigned to the particular category, finish beacon and the finish corridor shall be clearly marked on the map. The start is marked by a triangle (symbol 701), all transmitters by a circle (symbol 702), the finish corridor by a dashed line (symbol 705) and the finish by two concentric circles (symbol 706).

F23.6 Maps shall be protected against moisture.

F26. Start

F26.1 On arrival at the competition area, competitors shall keep their receivers. Spare receivers and components, clearly marked as property of a particular team or competitor, shall be placed at an indicated point just beyond the starting line beside the starting corridor.

F26.5 Competitors shall enter the pre-start area not earlier than FIVE MINUTES before their own start. Competitors receive maps after their start, at the starting line or at the indicated point within the starting corridor.

F27. Transmitters

F27.3 Each transmitter shall be clearly audible during the whole competition at its nominal position marked on the map AND at the distance of 30m from its real position. Transmitters shall NOT be audible at the distance of 250 m from their real positions. The finish beacon operates at normal power and therefore shall be clearly audible during the whole competition from the start point.

F27.9 All transmitters except for finish beacon have no flags. Registering devices shall be placed no more than one meter from each transmitter.

F27.10 not valid

F28. Transmitters arrangement

F28.2 There are number of transmitters in the competition area plus the finish beacon. Transmitters shall operate continuously.

Technical Specifications for ARDF Foxoring

FT2.6 Specifications for the 3.5 MHz transmitters:

• Carrier frequency	3,510 … 3,600 MHz
• Frequency stability	better than 50 ppm
• Channel spacing between the beacon and other transmitters	30 kHz minimum
• Undesired products level	conforming to the national regulations
• Output RF power (finish beacon)	1 … 5 W
• Output RF power (other transmitters)	10 mW
• Mode	A1A (keyed unmodulated carrier)
• Keying speed	8 … 15 WPM
• Antenna (finish beacon)	vertical
• Antenna (other transmitters)	vertical (approx. 30 cm long)

FT2.9 It is recommended that at least neighbouring field transmitters operate at different frequencies.