



FAI Sporting Code

Fédération
Aéronautique
Internationale

Section 9, Chapter 8

World and Continental Helicopter Championships

Rules and Regulations

2015
2017 EDITION

Approved by the FAI Rotorcraft Commission (~~CIG~~
)CIG)
on ~~06.March.2015~~

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Chapter 1 BIDDING

(to be read in conjunction with the General Section of the Sporting Code).

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The objective of FAI/CIG is to establish the best possible venues and opportunities to compete for World and Continental Championships.

1.0 AIMS

- 1.1 To determine a World or Continental Champion team, a World or Continental Champion crew and event Champions.
- 1.2 Popularisation of helicopter sports.
- 1.3 To improve pilot's flying skill.
- 1.4 To improve aeronautical relationship between participating countries.

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2.0 ORGANISER

- 2.1 ~~The A~~ World or Continental Helicopter Championships ~~are are organized is~~ organised by National Airsports Control(NAC's) under the control of FAI - CIG and in full accordance with the FAI Sporting Code and Regulations.
- 2.2 The NAC may delegate to another Organisation in its country part of its sporting power, but this does not detract from the ~~NAC's responsibility~~ NAC's responsibility to the FAI.

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3.0 OFFER

~~3.1~~ ^{3.1A} A bid to host a World or Continental Championship must be ~~submitted~~ received by the Bureau three months prior to the CIG Plenary Meeting for consideration ~~by a CIG Plenary Meeting~~ no less than ~~2-1~~ years before the proposed date.

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~~3.2~~ ^{3.2A} A draft bid must be submitted to the CIG Bureau at least 3 months before the Plenary Meeting.

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4.0 DETAILS

4.1 A bid must contain the following additional information to the OA:~~must include:~~

- ~~— Identity of the Organizer and Organisations involved~~
- ~~— Prospective dates for the Championship~~
- ~~— The site of the proposed Championship~~
- Detailed maps of the Competition Area
- Average local weather conditions of the site
- Airspace restrictions
- Characteristics of the location
- Insurance requirements
- ~~— An indication of the entry fee and what it includes~~
- ~~— Hotel and catering information~~
- Statement that all NAC's will be invited. This means that invitations, in writing, will be sent to all NAC's in the first instance
- Advice on ~~the possibilities of~~ hiring helicopters and any national licensing requirements
- ~~— Travel advice~~

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5.0. FAI-CIG ~~ORGANIZER-ORGANISER~~ AGREEMENT

- 5.1. Each bid must be accompanied by a signed ~~Organizer-Organiser~~ Agreement(AO). A bid without a signed ~~Organizer-AO Agreement~~ will not be considered. Bids made by an unsuccessful bidder will be immediately returned.
- 5.2. ~~In the event of the acceptance of a~~When a bid is accepted, ~~bid~~ FAI and CIG will immediately sign the ~~Agreement~~AO. Copies will be held by FAI, CIG and the successful NAC.
- 5.3. CIG may delegate full powers to its Bureau to clarify any 'agreed' provisional matters.

6.0. OFFICIALS

- 6.1. A successful bidder, at the time of acceptance, ~~may~~must propose the officials to be approved by CIG. There may be substitutions at a later date.

World and Continental Helicopter Championships

Chapter 2

General Rules and Regulations

(to be read in conjunction with the General Section of the Sporting Code)

1.0. PARTICIPANTS

- 1.1. Teams, ~~and~~ individual crews, ~~and Members-members~~ of ~~National Aero Clubs~~ ~~NACs~~ affiliated to the FAI, may take part in the World or Continental Championships. The delegation of each country may include: ~~Chief-chief~~ ~~Delegateddelegate~~, ~~Team-team Managermanager~~, FAI ~~Judges-judges~~ and ~~Assistant assistant Judgesjudges~~, ~~Pilots-pilots~~ and ~~Crew-crew Membersmembers~~, ~~Mechanicsmechanics~~, ~~Interpreter-interpreter~~ and additional personnel ~~announced by-included on the an~~ entry form. A participant may only act in a single capacity (except ~~Chief-chief~~ ~~Delegated~~ and ~~Team Mmanager~~ which may be combined in one person). There shall be a maximum of 10 judges (including ~~Aassistant judges~~) per country.
- 1.2. Each country may enter a maximum of 7 crews. Each crew may compete for the individual title of ~~“-”~~ Helicopter World or Continental Champion~~“-”~~. A crew can be all-male, all-female or male and female. A crew consists of 2 persons. A ~~National-national Delegation-maydelegation may~~ include an un-limited number of pilots to compete in ~~Event-event~~ No. 5.5 (Free Style) only. This event will be flown solo by the pilot.
- 1.3. An additional 3 crews over those in 1.2 may be included in the national delegation from the ~~organizing-organising~~ country to compete for the individual title.
- 1.4. Up to 3 ~~“-”~~ all- female ~~crews“-maycrews” may~~ also be entered in addition to those ~~mentioned-detailed~~ in 1.2 and 1.3 above. If there are more than 3 countries participating with all-female crews, an individual World or Continental Female Title will be awarded.
- 1.5. Each national team will be composed of a minimum of 3 and a maximum of 5 crews. Team crews must be declared and published not later than 12 hours before the competition starts. Their results will count for both the country team result and individual result.
- 1.6. ~~The defending~~ Reigning Overall Champions and ~~the defending-reigning~~ Female Champions ~~from the immediate previous championship~~ have the right to defend their title. They are regarded as extra crews over and above the numbers set out in 1.2 – 1.4.
- 1.7. Each crew member must ~~be in possession of~~ have a valid FAI Sporting Licence registered on the FAI Database, issued by the National ~~Aero-Club~~ Airport Control in which they are registered as a member and are citizens or residents of the NAC's country.

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A crew whose members represent different NACs may be accepted by CIG as an International crew. There must be no changes of crews/countries within ~~3 years~~36 months.

1.8. A ~~National Aero Club~~NAC being unable to enter a team of 3 crews, required for team classification, may enter individual crews.

1.9. Crews must participate in all Championship events 1 – 4 inclusive. Participation means having passed the departure line.

~~4.10. — 1.10~~The ~~Championship Event~~ Director may permit a change of a crew member in a National Team. No change is permitted later than 6 hours before the first event flight, and the change must be published. ~~In case of a mechanical breakdown in a helicopter before the competition or before an event, the Championship Director may permit the competitor to fly another helicopter.~~

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2.0. TYPES OF HELICOPTER, LICENCE AND DOCUMENTATION

2.1. Helicopters of any type with sufficient characteristics to execute World or Continental Helicopter Championship events will be allowed to compete in the Championship. If there is any doubt, the flight manual will be used as reference.

2.2. A valid ~~"~~"Certificate of Airworthiness~~"~~ or equivalent document and a Certificate of Registration issued by an appropriate ~~Authority~~authority must be ~~produced~~presented to the ~~Organizer~~Organiser for every competing helicopter.

2.3. Pilots must be in the possession of a valid Pilots Licence ~~complete with and~~current ~~Medical~~medical ~~Certificate~~certificate.

3.0. INSURANCE

3.1. It is compulsory for each competing helicopter to have a third party insurance policy for an amount of a minimum of 2,000,000 Swiss Francs (or equivalent), for the whole duration of the Championship and for ~~the~~ flights over foreign territory to the competition site. Personal insurance ~~of for~~ pilots and insurance of helicopters will also be covered by their nation. All members of a national delegation must carry individual health insurance. Copies of insurance policies with confirmation in English of validity must be submitted by each competitor.

3.2. Country Regulatory Authorities may have compulsory higher limits~~;~~1. ~~Therefore~~therefore, the minimum cover specified in Rule 3.1 will be increased to meet ~~government~~government requirements but in no case be lower than stated in Rule 3.1. above.

4.0. ENTRIES AND FEES

- 4.1. An entry will be accepted if made on an official entry form and received by the specified closing date. Late entries may be accepted at the discretion of the ~~Organizer~~ ~~Organiser~~ only when there is a good reason.
- 4.2. The official entry form can be submitted to the ~~Organizer~~ ~~Organiser~~ through postal services, by e- mail or fax.
- 4.3. The amount of the entry fee will be calculated by the ~~Organizer~~ ~~Organiser~~ and approved by FAI-CIG. The entry fee covers the costs for accommodation in twin rooms and food plus ~~organized~~ any organised events and transportation throughout the duration of the Championship for all delegation members. There shall be a higher amount for competing crews.
- 4.4. The entry fee will be paid ~~2 months~~ 60 days before the Competition.
- 4.5. All ~~Entry~~ ~~entry~~ fees will be refunded if the World or Continental Helicopter Championship does not take place.
- 4.6. If any delegation arrives at the Championship with incomplete or missing documentation the entry fee will not be refunded.
- 4.7. The entry fee does not include personal expenses.
- 4.8. The ~~Organizer~~ ~~Organiser~~ will, ~~announce to all participating publish~~ NACs in a preliminary bulletin to NACs with the following details:
- Amount of the entry fee for crews, delegation members, judges and additional personnel
 - Extra fee for single rooms
 - Bank account for payment of entry fees
 - Dates and ~~Agenda~~ agenda of the Championship
 - Details concerning ~~Check in~~ registration, ~~Initial~~ initial briefings and the proposed programme.
- 4.9 The ~~Organizer~~ ~~Organiser~~ will pay the Sanction Fee to the FAI-CIG account, being a sum equal to 100 Swiss Francs (plus any transaction fees) per delegation member, excluding judges. The payment is to be received by FAI not less than ~~30-60~~ days prior the start of the Championship.
- 4.10 Any outstanding fees owed for late entrants must be paid to the FAI - CIG President or the President of the Jury prior to the commencement of the Championship. Any overpayment of Sanction Fees will be refunded to the ~~Organizer~~ ~~Organiser~~ within 30 days of the end of the Championship and the publication of the results.
- 4.11 In the event of non payment or dispute, the CIG President, together with the International Jury will decide on an interim payment to be made prior to the commencement of the Championship. The FAI - CIG will ratify this at the next Plenary Meeting. The Championship will not commence until this payment has been made.

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5.0. PROGRAMME OF EVENTS

- 5.1. ~~All~~ ~~C~~competitors will be required to ~~perform-participate in~~ the following:

Event 1: Navigation
 Event 2: Parallel Precision
 Event 3: Parallel Fender Rigging
 Event 4: Parallel Slalom

Event 5 is optional. It will not count towards the overall Championship.

- 5.2. The sequence of the Championship events will be announced during the ~~initial~~ ~~general~~ briefing.

- 5.3. The ~~sequence-competitor running orders of flights~~ will be given by the ~~Championship-Event~~ Director the previous day and confirmed at the daily briefing, ~~and posted on the notice board and confirmed at the daily briefing~~. The ~~sequencee~~ ~~order~~ will have been determined taking into account the following factors:

- Speeds of consecutive helicopters to avoid overtaking and bunching ~~in-in~~ ~~Event-event~~ No1.
- Maximisation of time spacing for shared helicopters in ~~Event-event~~ No.1.
- ~~Avoidence~~ ~~Avoidance~~ of unnecessary weight changing for a shared helicopter in ~~Event-event~~ No.2
- ~~Avoidence~~ ~~Avoidance~~ of the same running order for consecutive ~~Eventsevents~~.

6.0. FLIGHT SAFETY

- 6.1. The ~~Organizer-Organiser~~ will appoint a 'Safety Officer'. He/~~she~~ will assist the Championship Director to observe ~~and guarantee~~ the safety of the flights on the competition site.

- 6.2. The Safety Officer must, in addition to any National recommendations, be provided with a copy of the FAI's Recommendations. ~~(what recommendations are supplied?)* discussion point~~

- 6.3. During the competition all competitors must observe and adhere to the rules of the air and special regulations in force in the ~~Host-host~~ country. The ~~Organizer~~ ~~Organiser~~ must supply ~~to~~ the participating delegations ~~with~~ all relevant regulations, documents ~~and-and~~ NOTAMS in force concerning the competition flight area. Any violation of flying or safety regulations in force may lead to the exclusion of the offender from the contest. No responsibility can be undertaken by the ~~Organizer-Organiser~~ for any violation of air safety by competitors or others.

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- 6.4. A competitor taking drugs, alcohol, medication or suffering from any illness or injury which might invalidate his licence or insurance, or in any way affect his performance, must inform the ~~Championship Event~~ Director ~~before flying~~. All competitors shall accept that they may be required to submit to, and co-operate with, doping control measures (WADA).
- 6.5. All personnel participating in the competition area during events must be clearly ~~marked~~identifiable. ~~All safety measures will be taken to prevent any dangerous situation in the vicinity of helicopters and to prevent foreign object damage either to helicopters or personnel.~~
- 6.6. Team managers and all other non-judging personnel will not be allowed into the competition area during events. Media personnel and VIP ~~visitors~~ are only allowed into the competition area during events if they are at all times strictly supervised by ~~Organizers~~ Organisers personnel and remain in marked areas approved by the Chief Judge.
- 6.7. Due to weather conditions or for safety reasons, the President of the Jury and/or the Chief Judge can vary the length of the course and the dimensions of the search box. DISCUSS
- 6.8. Mandatory Fly Over ~~(MFO)(-MFO)~~ points are to be used to provide required routing and separation ~~at the discretion of the Organizer~~. ~~MFO points~~ MFO points are to be clearly ~~recognizable~~ recognisable on the ground and the position to be ~~explained~~ identified to the crews at the general briefing prior to the commencement of the Championship.

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7.0. WORLD OR CONTINENTAL CHAMPIONSHIP BODIES

- 7.1 The Management of the competition consists of:

- The ~~Championship Event~~ Director
- Deputy Event Director
- The Jury
- The Chief Judge
- The Deputy Chief Judge

- 7.2 The ~~Championship Event~~ Director is appointed by the ~~Organizer~~ Organiser and approved by the FAI - CIG. He bears full responsibility for the Organisation of the contest and ~~the~~ its smooth operation, timing and safety of the flights on the competition site.

- Before the start of the contest he will advise the team managers of the national delegations, the crews not having team managers, the members of International Jury and the Chief Judge, on the flight conditions within the Championship

programme, as well as other problems which could arise from the interpretation of the General Rules.

- ~~In accordance with the General Section of the Sporting Code Chapter 5 the The Championship Event~~ Director may disqualify a competitor for the reasons stated below:
 - Unsafe flying and violation of airspace
 - Refusal to abide by a decision made by the technical advisers
 - Repeated serious ~~infringement~~ infringement of competition rules
 - Use of forbidden equipment, alcohol or drugs.
 - Cheating or repeated unsporting ~~behaviour~~ behaviour (~~Abuse~~ abuse of officials, insult of participants verbally or with by gesture gesticulation, or an attempt to influence decisions of judges).

In cases of disqualification, the entry fee is not returnable. The FAI Sporting Licence should be ~~withdrawn and returned to the Competitor's National Aero Club with a report removed from the database by the NAC concerned.~~

- 7.3 The International Jury is responsible for dealing with protests. It monitors the Championship in accordance with the Sporting Code, General Section and will intervene if the FAI Rules are not respected.

The International Jury is a nominated jury appointed by the FAI - CIG and composed of a President and 2 members who must represent different countries in accordance with te General Section.. and be all members of CIG.

The President of the Jury has the power to stop the event if the ~~Organizer~~ Organiser fails to abide the published Rules and Regulations for the event until a Jury meeting has considered the situation.

No Jury ~~Member~~ member is allowed to be connected in any way with their national team or crews or participate in any way in the running of their national team during the competition.

All members of the International Jury shall be present at the Championship location during competition flying. The President of the Jury will make his whereabouts known so that he may receive protests during the appropriate period. In case of a protest, the Jury will meet as soon as possible but may defer their deliberations to more convenient time during the Championship.

~~The Jury members~~ Reasonable travel ~~expenses~~ costs and entry fees for Jury members, including the official practice event, are to be borne by the Host NAC.

- 7.4 The Chief Judge and Deputy Chief Judge are nominated by FAI - CIG. Either the Chief Judge or the Deputy Chief Judge must be present in the competition area at all times during competition flying. They have the responsibility to ~~organize~~ organise the work to be carried out by the ~~International international Judges~~ judges and ~~Assistant-assistant Judges~~ judges and to report results to the ~~Championship Event~~ Director. They are also responsible for dealing with complaints concerning rules or judging matters and advise the ~~Championship Event~~ Director, team leaders and crews on interpretation of the Rules and Regulations and on penalties.

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The Chief Judge is also responsible for producing the variable parts of event 2 (~~choise~~ choice of turning points), event 3 (direction of flight through of entrance gates) and event 4 (flight through directions and exact position of gates 5 and 6) before registration day. **** VARIABLE PARTS TO BE DRAWN AT THE OPENING BRIEFING?? DISCUSS.**

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The Chief Judge's and Deputy Chief Judge's entry fees and reasonable travel costs, including the official practice event are to be borne by the ~~Organizer~~Organiser.

- 7.5 A Technical Adviser Team will be composed of 3 to 5 engineers ~~/and mechanics~~ mechanics and assistants, appointed by the ~~Organizer~~Organiser. This team is responsible to the ~~Championship Event~~ Director for the inspection of the required documents and the helicopters.

The Technical Adviser Team will inspect all helicopters and will seal ~~the all~~ instruments which could assist the pilot to fly the helicopter and provide an unfair advantage over other competitors.

A competitor removing any seal will be disqualified from the Championship.

- 7.6 The Safety Officer will be present at all times during the competition events. For ~~events 2~~ events 2 to 5 inclusive he will be present in the competition area. In the event of ~~actual a~~ dangerous incident, he must immediately inform the Chief Judge, or the ~~Championship Event~~ Director or the Jury.

- 7.7 The President of the Jury or a designated member of the Jury and the Chief Judge or the Deputy Chief Judge must be at the competition site ~~at least up to~~ three days before the start of the competition to ensure that the ~~Organizer~~Organiser has complied with the rules and details of the competition.

- 7.8 ~~The International Jury, the Championship Director or Judges may not change any rule or penalties approved by CIG. No rule or penalty approved by FAI - CIG can be altered at any time other than at the next Plenary meeting.~~

8.0 JUDGING

- 8.1 Judging during the World or Continental Championship will be carried out by an International Board of Judges, the members of which must meet the standards laid down in Chapter 4 and be approved by FAI - CIG.

- 8.2 All ~~participating~~ NAC's have right to be represented on the Board of Judges by FAI International Judges approved by CIG.

- 8.3 The Board of Judges will be composed of:

- A Chief Judge
- Deputy Chief Judge
- International Judges
- Assistant Judges

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- 8.4 Assistant ~~Judges-judges~~ are nominated by each participating NAC and must have been registered with CIG before the Championship starts. An ~~Assistant-assistant Judge-judge~~ may perform all tasks not involving subjective judgment. Tasks include timing, scoring boundary line violations, and duties associated with preparation and departure lines and other tasks assigned by the Chief Judge or the Deputy Chief Judge consistent with basic restriction. Experience as an ~~Assistant-assistant Judge-judge~~ at National and International Championships shall be considered by the ~~National Aero Club~~ NAC when determining upgrading to ~~International-international Judge-judge~~ status.
- 8.5 Under exceptional circumstances during the contest, the Chief Judge may allow a change in the Board of Judges.
- 8.6 The ~~Judges-judges~~ and ~~Assistant-assistant Judges-judges~~ will be placed by the Chief Judge or Deputy Chief Judge at appropriate places for observing and evaluating competition flights, including places that require the use of technical equipment, as determined by the ~~Judge-judge Allocation-allocation~~ and briefing notes. No more than 3 FAI ~~Judges-judges~~ and/or ~~Assistant-assistant Judges-judges~~ are permitted at any one judging point and will have a common language for purposes of communication.
- 8.7 ~~Judges~~ The scoring sheets ~~of Judges~~ may be collected intermittently during an event.
Immediately after completion of an event and its marking by ~~Judges~~judges, the score sheets must be given to the Chief Judge or the Deputy Chief Judge.
- 8.8 If a ~~Judge-judge~~ becomes aware of a breach of FAI Regulations or Championship Rules and is in possession of detailed evidence or he /she disagrees with the judgement of other judges on his judging point, he must make his appropriate remarks on the scoring sheet and bring this to the attention of the Chief Judge or Deputy Chief Judge immediately.
- 8.9 If an FAI ~~Judge-judge~~ notices a mistake in the preliminary results for his judging point, the error should be drawn immediately to the attention of the Chief Judge. The Chief Judge will clarify the matter together with the ~~Championship-Event~~ Director and scoring personnel. The Chief Judge will inform the ~~Judge-judge~~ about the findings.
- 8.10 The deliberations of the Board of Judges and the International Jury are confidential. They must not be discussed with ~~Delegation-delegation~~ or crew members. During his duty as a FAI official, no judge is allowed to ~~maintain-have~~ a close connection with crews or members of ~~Delegations~~delegations.
- 8.11 The Chief Judge may suspend a ~~Judge-judge~~ in the case of failure to carry out his/her duties. A report will be forwarded to his/ her NAC.
- 8.12 Prior to the start of the Championships, the Chief Judge will undertake a compulsory briefing conference ~~which is compulsory~~ for all ~~Judges-judges~~ and

~~Assistant-assistant Judges-judges~~ to attend. This ~~conference~~ will take place the day before the first flying event of the Championship at a published time ~~decided by the Chief Judge.~~

- 8.13 No ~~Judge-judge~~ may raise questions of rules interpretation at briefings where participating crews are present.

9.0 DETERMINATION OF WORLD OR CONTINENTAL CHAMPIONS

- 9.1 The ~~"~~ Team World Champions ~~"~~ will be the best 3 crews of a country team, having the highest number of points compared to all other groups of 3 crews from each other country.
- 9.2 The ~~"~~ Overall World Champions ~~"~~ will be the crew having the highest score of all other crews.
The ~~"~~ Female Champions ~~"~~ will be the all-female crew having the highest score of all other female crews.
- 9.3 Event Champions in Events ~~(+1 to 5-5)~~ are determined by the highest number of points obtained in each of these events.
- 9.4 The pilot with the highest overall score where this pilot has less than 250 hours total ~~time,time~~ will be nominated ~~"Best"~~ Best Novice Pilot ~~"."~~
- 9.5 Medals and Diplomas ~~must may~~ be purchased by the ~~Organizer~~ Organiser from FAI or in accordance with the General Section of the Sporting Code 4.16.3.2.

10.0 COMPLAINT AND PROTEST

- 10.1 The purpose of a complaint is to obtain a correction without the need to make a protest.
- 10.2 A competitor or a team who is dissatisfied ~~on-with~~ any matter during the Championship should first ask the ~~appropriate~~ appropriate official for assistance. If still dissatisfied, a complaint, in written form, should be made by the competitor or through the team manager to the ~~Championship-Event~~ Director or his designated official, without delay. All judging matters will be passed by the ~~Championship-Event~~ Director to the Chief Judge for determination. If dissatisfied with the decision on a complaint, a competitor or team manager has the right of protest.

- 10.3 There will be a time limit of 1 hour from the time the preliminary results are officially published and the time entered on the result sheets during which a complaint may be lodged. Once the ~~Championship-Event~~ Director or the Chief Judge has reached a determination of the complaint and communicated it to the relevant competitor or team manager, there will be again a time limit of 2 hours in which a protest may be lodged.

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Protests are accepted from a competitor via his team manager or from the respective team manager. If a competitor has no separate team manager, he may lodge the protest himself. Protests are only possible against an issue which affects the competitor himself. All protests will be written in English and forwarded together with the deposit of 600,- ~~Swiss~~ Swiss Francs ~~(or equivalent)~~ ~~(equivalent to)~~ to the ~~Championship-Event~~ Director, who will in ~~turn~~ ~~pass~~ turn pass it to the International Jury. The deposit is reimbursed if the protest is upheld. The Jury may order a protest fee to be reimbursed in total or in part even though the protest is denied.

DISCUSSION POINT - possible situation

i.e. event flying finishes 1800hrs, preliminary scores 2100hrs, competitors complaints by 2200hrs, if not satisfied competitor has till 2400hrs to resolve (not satisfactory)

OR

process is stopped to resume in the morning, not satisfactory for crew preparation for next event.

Recommendation - no scores published after 1800hrs to allow rest time from 2300hrs

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- 10.4 Where one issue affects several crews of the same delegation they may all submit the same protest for one fee of 600,- ~~Swiss~~ Swiss Francs. ~~However, the~~ ~~The~~ deposit fee is only reimbursed ~~only~~ if the protest is upheld for all crews submitting the protest.
- 10.5 The International Jury must allow the protesting competitor and/or the team manager to give evidence.
- 10.6 No complaint or protest will be allowed regarding the method, accuracy, or use of measuring equipment which has been approved as per 12.6. Judgements made without the use of approved equipment, or where no equipment is used at all, are not subject to this restriction.
- 10.7 If a ~~Team-team~~ ~~Manager-manager~~ becomes aware of a serious breach of FAI Regulations or Championship Rules and is in possession of detailed evidence, he must bring it to the attention of the Chief Judge and the ~~Championship-Event~~ Director. He must produce all the detailed evidence to support his allegation without which the allegation will be rejected. If an allegation is found to be unsubstantiated or mischievous FAI and the NAC will be informed.

12.0 OPERATIONAL REGULATIONS

- 12.1 Competition flights are performed under the following weather conditions:

- Event 1 and 5: Minimum cloud height of 300 metres and minimum horizontal visibility 2 kilometres or the minimum legal flying conditions of the host country whichever is the greater.

- Event 2, 3 and 4: maximum wind speed of 15 knots unless all team managers unanimously agree otherwise at the event briefing.
 - Event 5 maximum wind speed of 8 knots.
- 12.2 A common VHF frequency will be provided to all competitors. All other frequencies will be sealed off. However, in the event of an emergency, the seal may be broken to facilitate radio transmissions.
- 12.3 All pilots will be briefed on Flying Rules in the Competition area for any away flight conducted outside the official contest programme. All pilots must be acquainted with the area where the flights are allowed. Transit maps of the region will be distributed to all pilots at the first briefing.
- 12.4 The Competition maps approved by CIG (at its meeting prior to the Championship), will be supplied to each NAC in sufficient quantity for each competing crew 4 weeks before the Championship together with the field sketches indicating parking, ~~refueling~~refuelling and the location of Events 2, 3, 4, and 5. A list of competitor numbers will be preallocated to each country. The Competition map should have a scale of between 1:200.000 to 1:250.000 and normally used in ~~Organizer's~~Organiser's country as an aeronautical map.
- 12.5 Only designated pilots will fly during competition except in the case of an emergency. The crew member / co-pilot is restricted from handling the flying controls during events and infringement will result in disqualification.
- 12.6 The details of all measuring equipment to be used during Championship are to be submitted to the FAI - CIG for consideration. It is the ~~Organizers~~Organisers responsibility to ensure ~~that~~ the equipment or its technical description, user instruction or user handbooks and certification of worthiness is available at the annual CIG meeting prior to the Championship. Stopwatches are exempt from this requirement but must be calibrated by a laboratory holding ISO17025. but methods Methods for determining Start-start / Finish-finish and measuring distance are not unless previously approved. Can anyone give an example.
- 12.7 The method of measurement of the data listed in Annex B must also be submitted to the FAI - CIG ~~for~~ consideration as per 12.6.
- 12.8 To ensure good media coverage, competing aircraft may be required to carry a television/~~or~~ film camera. These will be mounted in a manner compatible with airworthiness requirements ~~at the discretion of the Championship Director.~~
- 12.9 Helicopter Types will be given a competition speed based on 80 % of the maximum safe sustainable cruise speed in straight and level flight with two average weight persons and 1.5 hours fuel on board. The maximum competition speed shall not exceed 90 knots. The FAI - CIG will determine speeds for all ~~current~~ly operating helicopter types after consultation with experts on each type and maintain a list. The list will be maintained in Annex A of these rules and may vary from time to time.

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12.10 ~~Sufficient Standard-standard~~ fuel ~~sufficient~~ for the Championship ~~tasks~~ (~~AVGAS~~AVGAS 100 LL and JET ~~A1~~A1) will be provided by the ~~Organizer~~Organiser. The ~~Organizer~~Organiser will not supply oil or lubricants. Wherever non-standard fuel has to be used, the ~~its~~ supply will be the participant's responsibility. Fuel, oil or lubricants are not covered by the entry fee.

12.11 ~~How many~~The number of crews ~~may share sharing~~ one helicopter in any event depends on organisational circumstances and the ~~Championship Event~~ Director's decision.

13.0 COMPETITION RULES

13.1 It is the responsibility of crews to ensure their proper understanding of the Competition and Events Rules.

13.2 Any change in the schedule due to weather etc., will be posted on the information board and announced at briefing.

13.3 Crews will be given ~~"lift off"~~ times for each event and it will be their responsibility to be ready at the preparation line. The ~~Championship Event~~ Director may announce changes to lift off times just prior to or during an event.

13.4 Late arrival at Line P will ~~normally be penalized~~ ~~penalised~~ by 5 points for each minute of delay or part thereof to a maximum of 25 points. After ~~a~~ 5 minutes delay, the competitor will be required to fly last. In the event of a proven technical problem, the ~~Championship Event~~ Director may ~~authorize~~ ~~authorise~~ a change in departure time up to 10 minutes after the last departure time on the published running order.

13.5 If a competitor interrupts his flight after crossing the departure line for any technical reason, including low fuel during the event, he will not be allowed to repeat it.

13.6 Except where another penalty is specifically provided for, the penalty for infringement of any rule is 10 points.

13.7 Use of special equipment, such as auto ~~stabilizing~~ ~~stabilising~~ equipment, auto pilot and certain radio aids is not permitted, unless it is listed in the Operator Flight Manual as necessary to conduct normal safe flight. Radar and Radio Altimeters and GPS capable devices including mobile phones and GPS watches are not permitted for the 4 events of the competition. Any infringement will result in disqualification.

~~13.7~~13.8 Cameras may be fitted and used as evidence on behalf of the competitor or Organiser. The carrying of cameras must be declared to the judge at the start of the navigation. After the navigation cameras and used data cards must be surrendered with the documents for the navigation to the Organiser. Failure to do so will result in disqualification. The Organiser may request access to the camera

data files/card at any time up to the publication of the provisional results after each event the camera was used.

~~13.8~~13.9 The ~~Championship Event~~ Director will choose at least 10 % of participating crews and helicopters for ~~relevant~~ inspections during the competition. All competitors shall agree to this examination including body search.

~~13.9~~13.10 Practice is prohibited during the Championship and will incur a penalty of 50 points per occurrence. Competitors will be allowed to check the height of the weights during fitting in Event 2 and will be allowed a left and right turn on the ~~"P" "P"~~ Line to check aircraft performance. Private flights may only take place with special permission from the ~~Championship Event~~ Director.

~~13.10~~13.11 A contest number must be clearly visible on the left and right sides and under the front part of the helicopter during the whole Championships. The size of the numbers will be 30 by 30 cm, or as large a size as is ~~reasonable~~ reasonably possible and will be black numbers on a white or yellow background. Provision of the contest numbers is the responsibility of the ~~Organizer~~ Organiser. Numbers will be fixed by each crew before the first competition day. The Chief Judge or his delegated ~~Official~~ official will confirm ~~the~~ compliance prior to the first event.

~~13.11~~13.12 Each competing helicopter must comply with its own National Flight Regulations, and must be equipped with a VHF radio and normal standard equipment.

~~13.12~~13.13 A black flag shown to a competitor means he is disqualified for the ~~Event~~ event. ~~"Black flags"~~ are explained in some score events and will be detailed during briefing. Black flags can only be shown by judges on the authority of the Chief Judge or ~~by the~~ Chief Judge or Deputy Chief Judge ~~or by themselves~~.

13.143 All ~~Judges-judges~~ and ~~Assistant-assistant Judges-judges~~ will bring a stopwatch with them to the Championship.

13.1415 All times are ~~to be~~ measured to an accuracy of at least one tenth of a second and to one hundredth of a second where possible. The personnel responsible for calculating and collating scores will round the scores to the nearest tenth of a second before allocating penalty points. Times from 0.01 to 0.04 of a second will be rounded down to the previous tenth of a second whereas times from 0.05 to 0.09 of a second will be rounded up to the next tenth of a second.

~~13.15~~ 13.16 The required equipment for all events, ~~specially~~ described in the event rules and their annexes, will be provided by the ~~Organizer~~ Organiser. No other equipment should be used by the competitors. Any competitor bringing an item of equipment must submit it to the Event Organiser for scrutineering prior to the start of the Championship for permission to be given for the item to be used.

All equipment ~~which will~~ be used by crews during the ~~respective events~~ competition must be available for inspection at the event briefings. Any lines or markings for all events, fixed equipment such as the slalom course, the fender rigging course or the dog house, must be in place and available for

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inspection by competitors and officials at least one hour prior to the departure of the first competitor. A plan of how the course is to be laid out ~~including~~ (including free-style ~~box~~)box) should be given to the Jury President at least 24 hours prior to the first departure.

~~13.16~~ 13.17 The preliminary results ~~of each competitor for every event~~ will be published not later than 3 hours after completion of ~~the event~~ flying. The scoring in detail will be published as soon as possible after each flight. The preliminary results of each event with the crew's placing will be published on the information board. The final results with the placing will be published not later than the next day following the task concerned. Team ~~Managers~~ managers have the responsibility of obtaining this information and informing their crews within the appropriate time period. I.E. FLYING FINISHING AT 1800HRS. PROVISIONAL RESULTS UP TO 2100HRS. COMPLAINTS BEFORE 2200HRS - ALL VERY LATE (no mention of final results being signed by CJ)

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World and Continental Helicopter Championships

Chapter 3

Organisation and Venue Rules

1.0 GENERAL

Prior to any ~~National Aero Club~~NAC offering to host a World or Continental Helicopter Championship, the ~~National Aero Club~~NAC must be able to satisfy FAI – CIG on the following points:

- 1.1 Sufficient experience exists in the Host Country to ensure ~~a high standard~~the running of a competition in compliance with FAI Rules..
- 1.2 There should be at least 4 officials experienced in the discipline who are able to provide their knowledge and experience in respect to ~~organizing~~organising Championships.
- 1.3 ~~It is advantageous but not compulsory that the Host Aero Club combine with their National Military or Government in their offer to host an event.~~ FAI – CIG would give consideration to 2 ~~National Aero Clubs~~NACS offering to jointly host a Championship on their National Borders subject to the respective Government approval.
- 1.4 The Host ~~National Aero Club~~NAC must provide an airfield with limited traffic. An airfield with bi-lingual controlling ~~at any time~~must be avoided during practice or the championship ~~event must be avoided.~~
- 1.5 The Host ~~National Aero Club~~NAC must satisfy FAI – CIG that a championship can be run with regard to the reasonable cost of participation by individuals.
- 1.6 In selecting a venue the Host ~~National Aero Club~~NAC must be able to provide acceptable reasonable accommodation close to the airfield with facilities for adequate parking and local championship transportation.
- 1.7 The Host ~~National Aero Club~~NAC must develop a close working relationship from the time ~~that~~ approval is given with both the President of the International Jury and the Championship Chief Judge.
- 1.8 The Host ~~National Aero Club~~NAC must comply with ~~the following FAI~~ Rules and Regulations. If any doubts exist to their interpretation, the advice of the President of the Jury should be sought at an early stage.
- 1.9 The Host Country must not run other local competitions at the same time unless they are under identical rules. Practice time on the airfield or in the navigation area is reserved for Championship ~~Events~~events with spare time only for any local event practice.
- 1.10 Practice for display, demonstrations, etc. must not interfere with the Competition Practice Schedule, which must take priority.
Any display, demonstration or show must not interfere with competition flying.

- 1.11 The Host ~~National Aero Club~~NAC may accept participants ~~for from~~ outside the competition but without causing any interference to the Championships. Their results will not be shown on any competition list. Only individual results may be handed to them.

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- 1.12 The Host ~~National Aero Club~~NAC will take out adequate insurance coverage for all personnel who ~~for any reason have to be~~ present, close or adjacent to the competition area, either in practice or in competition. This will include all Jury ~~Members~~members, ~~Judges~~judges, operational officials, secretaries, team managers or other crews observing practice.

2.0 VENUE

- 2.1. When choosing the location of a Championship site, careful consideration should be given to the type of terrain readily available. Mixed terrain, both low lying and high ground is recommended, in an area that is neither too easy nor too difficult to navigate over.
- 2.2 It is preferable to have the sole use of an airfield or be able to adopt a dominant role in respect to air traffic movements.
- 2.3 The navigation area (~~Event event~~ 1), ~~where competition traffic is relatively low, should avoid areas of~~ military low level flights ~~through the area are unacceptable and~~. ~~Appropriate appropriate~~ Notams must be issued in respect to low level helicopter flying, ~~especially for manoeuvring and searching~~.
- 2.4 For ~~Event event~~ 1, the whole of the navigation course must be on one map.
- 2.5 For ~~Event event~~ 1, there should be no prohibited areas or danger areas within 10 nautical miles of the navigation route. There should be no dangerous power cables within 3 NM of the airfield ~~or in areas where descent is required below 150 metres~~. Cables must be shown on local area but not competition maps.
- 2.6. The airfield should have a large flat open unrestricted grass area upon which the ~~championship~~Championship tasks can be carried out. Routing in and out of the airfield should be from different directions, pre-planned and marked on the ground for all events taking place on the airfield.
- 2.7 Seating areas (low level stands) should be available for spectators within reasonable distance of the competition area. Separate facilities must be provided for international press including TV and ~~Sponsored sponsored~~ video teams. A separate press centre should be made available by the ~~Organizer~~Organiser.
- 2.8 The airfield must provide adequate full time air traffic control, fire and ambulance services, hangarage for special maintenance, fuel both for piston and turbine helicopters. ~~An efficient fast~~ refuelling facility on the airfield is vital for the smooth running of a ~~championship~~Championship.

- 2.9. Catering facilities, for the sole use of those associated with the ~~championship~~Championship, must be provided. The ~~Organizer~~Organiser should allow for staggered mealtimes i.e. running continuous buffet.
- 2.10 The airfield should be located not more than 20 minutes travel time from the residential accommodation provided for the participants.
- 2.11 The airfield should be available for full familiarisation and practice in the week prior to the championship, during which time the airfield will be run under strict "Local Rules" to which all participants must adhere. In the event that a military base is used, the ~~Organizer~~Organiser must provide an alternative training airfield nearby to the navigation area in order that navigation training may take place in the week prior to the ~~championship~~Championship.
- 2.12 ~~A detailed~~Detailed weather history ~~within of~~ the competition area must be ~~provided submitted~~ to FAI – CIG ~~at the time that with~~ the bid ~~is made~~.
- 2.13 Special attention should be given to the location and size of the briefing and rest room. ~~This It~~ should not be used for catering purposes. Sufficient seating should be provided for a minimum 150 people with additional facilities for press and TV crews.

3.0 SPONSORSHIP

- 3.1. The Host ~~National Aero Club~~NAC is encouraged to obtain sponsorship either for the whole or for individual events within the championship in order that the overall cost of the event for participants is reduced.
- 3.2 Hosting ~~the championships~~Championships should not be taken by the ~~National Aero Club~~NAC as a means of making substantial profit at the expense of the participants.

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4.0 PRESS AND TELEVISION (The Media)

- 4.1. FAI – CIG will, in considering bids for hosting ~~a~~ Championships, put considerable emphasis ~~upon~~ the quality and coverage given by ~~International~~international, ~~Continental~~continental and ~~Local~~local ~~Media~~media. This is particularly important in the case of television.
- 4.2. Facilities must be available for international and local press, television and video crews. It is essential that there is wide coverage both nationally and internationally. Details of daily international and national programme coverage must form part of any bid.
- 4.3 The ~~Organizer~~Organiser will provide facilities for press and television. This will include appropriate stands in the vicinity of the competition area on the airfield. Television crews must be escorted into the competition area but not the navigation area, ~~but they and~~ cannot be accompanied by more than 2 others: ~~(Maximum~~maximum 3). They must be escorted at all times ~~by a member of the Championship Director's staff~~

~~whose duty will be~~ to ensure that they do not interfere ~~in any way~~ with competition flying, judging or cause a hazard.

4.4 The Host ~~National Aero Club~~ NAC will provide an experienced commentator who can provide an exciting, interesting and regular flow of information and results to be broadcast to the public enclosure and ~~to~~ the briefing area.

4.5 Facilities will be made available for the broadcast of music used during the freestyle event. It would be an advantage to have a practice prior to the championship to facilitate smooth running of the event. The position of loudspeakers must be placed so that competing pilots can clearly hear them.

5.0 ACCOMMODATION

5.1 It is beneficial, but not vital, for all participants to be housed together in one complex. This will reduce the problems of communication and enables a central information centre to be set up. Competitors must have priority over supporters.

5.2 The cost of accommodation is of prime importance to participants. Expensive hotels are unwelcome. Participants require reasonable accommodation at an acceptable price.

5.3 The accommodation should provide for a running breakfast, timings ~~of which~~ will be governed by the competition programme.

5.4 The residential site must be within easy reach of the competition airfield. The ~~Competition competition~~ Management management must be sympathetic to pilots rest requirements.

5.5 It is essential that absolute quiet is given between the hours of 23.00 – 06.00 to give sensible sleep periods. Once participants ~~have taken up~~ are in residence, no parties will be held in the residential accommodation between these times until ~~such time as~~ the last competition event has been completed.

5.6 Alcohol will not be sold to competitors after 23.00 hrs in the residential accommodation.

5.7 National ~~Team team~~ Managers managers must ensure that supporters do not interfere or disrupt the sleeping period 23.00 – 06.00 under any circumstance.

5.8 Two officials will be available between 06.30 and 23.30 throughout the Championships to assist with problems relating to accommodation and transportation. Their telephone numbers must be available to all participants.

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6.0 CATERING

6.1 Breakfast will be taken at the residential accommodation.

- 6.2 It is recommended that airfield catering is provided on the basis of a running buffet to cater for the staggered requirements of all participants in the championship. Regular hot and cold drinks should be available at all times. The catering area should be designed to provide seating accommodation of 150 at any one time.
- 6.3 Self service is recommended.
- 6.4 The Host ~~National Aero Club~~ NAC will arrange for the ~~Opening-opening~~ and ~~Closing-closing~~ Ceremonies-ceremonies to be held on the airfield or other suitable place in front of the public. Opening and ~~Closing-closing~~ Banquets-banquets may be held at other venues away from the airfield and may be separately sponsored. Any event away from the airfield or the residential area must have a transport service provided for all participants.
- 6.5 Consideration should be given to the provision of vegetarian or other special catering needs. The entry form should require the appropriate information to be given well in advance.

7.0 TRANSPORT

- 7.1 The ~~Competition-competition~~ Management-management must arrange suitable daily transport between the residential site and the airfield. Pick up points and timetables must be provided to every participant and must be published on an information board in the briefing room both and at the residential site ~~and in the briefing room~~.
- 7.2 It would be ideal for each team to be provided with separate transport. In the likely event that this is not feasible, an adequate coach service must be provided.
- 7.3 The Jury, ~~as well~~ the Chief Judge and the Deputy Chief Judge must be provided with their own independent transportation.
- 7.4 Transportation must also be available to take teams of judges and assistant judges out to and return from the navigation area.

8.0 AIRCRAFT HIRE

- 8.1 The Host ~~National Aero Club~~ NAC must be prepared to ~~initiate-assist with~~ arrangements for the hire of helicopters for participants ~~-if required~~ unable to bring their own competition aircraft.
- 8.2 Crews planning to hire helicopters should ~~initiat~~ make a request at least 3 months before the event specifying type, length of time, hours to be flown, etc. They should ~~furnish~~ give full details of their own licences and experience.
- 8.3 Helicopters for hire should be checked by the Host ~~National Aero Club~~ NAC to ensure ~~that~~ they are of an adequate standard for competitive flight and that Certificates of Airworthiness and Third Party Liability Insurance are included.

9.0 TRAINING PRACTICE

- 9.1 Practice and familiarisation of the navigation area should be available in the week prior to the week of the Championship.
- 9.2 Navigation practice should take place without affecting the normal airfield routine.
- 9.3 During practice it is essential that Airfield Routine Regulations are fully observed. It is also necessary for other non competitive traffic using the airfield, to be under similar guidance. Strict RT control will be necessary.
- 9.4 Daily flying should be restricted to 09-00hrs – 18-00hrs
- 9.5 Training practice must not be interrupted for display, show or exhibition flights.
- 9.6 The Host ~~National Aero Club~~ NAC must provide a sample of the competition map for approval by FAI – CIG at least 6 months before the start of the championship.

10.0 BRIEFINGS

- 10.1 General and event briefings must be attended by all concerned.
- 10.2 The ~~Opening-opening General-general Briefing-briefing~~ must be attended by ~~Judgesjudges~~, ~~Operational-operational Officialsofficials~~, ~~Team-team Managersmanagers~~ and ~~Crewscrews~~. The object is to explain the running of the championship, the programme ~~to be adhered to~~ including the any social programme and channels of communication.
- 10.3 Event ~~Briefings-briefings~~ must be attended by ~~Judgesjudges~~, ~~Operational-operational Officialsofficials~~, ~~Team-team Managersmanagers~~ and ~~Crewscrews~~. The ~~Briefing briefing~~ will define operating procedures. Discussions on the ~~Rules-rules~~ and judging will not be allowed in briefings.
- 10.4 Daily ~~Briefings-briefings~~ must be attended by ~~Team-team Managersmanagers~~ the object being to define the day's programme.
- 10.5 Set ~~Briefings-briefings~~ will be attended by crews and team managers.

11.0 METEOROLOGY

- 11.1 A meteorological service must be available, at least on phone or fax, throughout the Championship.

- | 11.2 At the ~~General-general Opening-opening~~ and the ~~Event-event Briefings-briefings~~ a competent person must give a detailed weather briefing.

World and Continental Helicopter Championships

Chapter 4

CRITERIA AND APPROVAL OF JUDGES

- 1.0 This ~~Chapter~~ ~~chapter~~ describes the standard, which must be met by individuals who wish to be granted or maintain the qualification of International Judge as awarded by the FAI - CIG.

2.0 Authority

- 2.1 The ~~National Aero Club~~ NAC is responsible for submitting a list of individuals who are to be granted or confirmed as ~~International~~ international Judges-judges at the scheduled CIG annual meetings.
- 2.2 Each NAC is responsible for confirming the training, experience and standard of each ~~of the Judges-judge~~ submitted ~~by-on~~ the NAC's list together with a brief description of the national training and endorsement procedure. The NAC must endorse the qualifications as laid down in 4.1 to 4.3.
- 2.3 Should it be found that a ~~Judge-judge~~ does not meet the standards set by the CIG, ~~then~~ the ~~Delegate-delegate~~ of-concerned that particular NAC ~~may~~ be requested to explain at the next FAI - CIG meeting.

3.0 Duration

- 3.1 The validity of ~~International~~ international Judge-judge status will be from one CIG meeting prior to a World or Continental Helicopter Championship to the next. This will give a validity of two or maximum three years depending on the frequency of these Championships.
- 3.2 It is in order for the CIG to convene a special meeting at a World Championship to appoint more ~~International~~ international Judges-judges provided the ~~Judges-judges~~ are approved by their NACs and its delegate as well as complying with CIG standards.

4.0 Standards

- An ~~International~~ international Judge-judge must be able to demonstrate the following ability:
 - 4.1 Rules: ~~A-a~~ full knowledge of the current version of the CIG World and Continental Championship Rules and regulations of FAI Sporting Code General Section.
 - 4.2 Physical capability: ~~a~~

~~An-an International~~ ~~international Judge-judge~~ and ~~Assistant-assistant Judge-judge~~ must be capable of remaining out in the field for at least 10 hours. They must also be sufficiently mobile to move ~~fast-quickly~~ within the competition area.

Eyesight:

To be able to read two numbers each 30cm x 30cm as described in 13.9 of the Chapter 2, from a distance of 15 ~~Metres-metres~~ or 50 feet.

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Hearing:

To be able to hear a helicopter approaching in still air conditions from a distance of 1 NM.

A holder of a valid aviation medical of any class will be assumed to meet these criteria.

Stopwatch Usage:

To be able to demonstrate ~~familiarity-capability~~ with a stopwatch of his choice, or the approved NAC stopwatch and to be able to measure a time to an accuracy of 0.25 of a second.

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Clock Usage:

To be able to ~~synchronize-synchronise~~ a clock to a Master Clock to an accuracy of 0.1 of a second and to time an event to an accuracy of 0.25 of a second.

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Speed, Height, Course judgment-:

To be able to determine a course change of over 30 degrees, a ground speed of less than 30 kph (16 kts), and a height of 10 metres (33 feet).

- 4.3 A ~~Judge-judge~~ must have been a major ~~Official-official~~ i.e. Chief Judge, Deputy Chief ~~Judgejudge~~, ~~Jury-jury Member-member~~ or have judged in either a World or Continental Championship or World Air Games, International Sporting Events, National- or Open National Championships, which have been carried out in accordance with FAI – CIG Event Rules and Regulations within the last two years prior to the deciding CIG meeting.

- 4.4 A ~~Judge-judge~~ not meeting any of the above criteria may be appointed an ~~Assistant assistant Judge-judge~~ at the discretion of the CIG providing an experience/training declaration (Annex C) has been submitted.

World and Continental Helicopter Championships

Chapter 5

Event Rules and Regulations

5.0 General

The events described in this chapter should also be used for National Championships ~~and other~~ and other National or International sporting events or for special air sports presentation and other contests ~~organized~~ organised by or on behalf of a National Organisation. At ~~Organizer's~~ Organisers discretion the events 2, 3 and 4 may be carried out as single courses.

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Event 5.1 - Navigation

(to be read in conjunction with the General Section of the Sporting Code Annex A)

5.1.0 Event Description:

The Event is a Navigation with Timed Arrival and Load Drop Off .

The Event will include a navigation course; en-route search zone on second or third leg; aerial drop zone between Departure line and MFO 1 or on the first leg of ~~manoeuvring~~ manoeuvring box; timed arrival at Line "A"; ~~manoeuvring~~ manoeuvring box between Line "A" and Line "F"; a load drop off at Line "C"; and end-of-event ~~landing zone~~ landing zone.

5.1.1 Navigational Course.

The navigation course will include 6 legs; three (3) Turning Points (TPs) and two (2) Mandatory Fly Over (MFO) points.

LEG	FROM	TO
1st Leg	Line "D"	MFO 1
2nd Leg	MFO 1	TP1
3rd Leg	TP 1	TP2
4th Leg	TP2	TP3
5th Leg	TP3	MFO 2
6th Leg	MFO 2	Line "A"

TP1, TP2 and TP3 will be identified on the ground by orange ~~2 x 23 x 3~~ 2 x 23 x 3 metres triangular panels with black numbers on them. The competitor must identify each sign at its specific location. Intermediate time will be recorded at TP1, TP2 and TP3 for control purposes only.

The route, including identification of panels will be about 70 – 90 kilometres. The route length and the location of the targets for the bags will be announced at the event briefing.

5.1.2 Flight Height:

The route and the MFOs will be flown at a height of ~~about~~ 250 metres ~~+/-100 metres~~ AGL. ~~Turning Points plus search zone entry and exit gates markers shall be overflown~~

~~at a height of 50 metres if not increased to meet national regulations of Organizer's state.~~

5.1.3 Flying Time:

Identical for all competitors of the same helicopter type. The flying time will be computed by the ~~Organizer~~ Organiser based on the speeds defined in para 12.9 of the Chapter 2 listed by type in Appendix A. For safety reasons and due to various weather conditions, an additional time of at least 3 minutes will be added to the calculated flying time for each competitor.

5.1.4 Start Time:

Start times will be given in exact minutes and seconds.
There are penalties for early and late departure. During the event briefing each crew will receive the time the helicopter has to be at Preparation Line and the exact departure time the helicopter has to pass the Line D. Departure ~~Time-time~~ will be as appropriate to ensure proper aircraft separation.

5.1.5 Preparation line:

Ten (10) minutes before departure time the helicopter will come to the preparation line (Line "P"). At the preparation line, the ~~Organiser's~~ Organisers designated event official will give to the crew, the skittle with rope attached, and two (2) numbered fabric bags (filled with rice or sand, each weighing 1 kilo).

5.1.6 Departure line:

The helicopter will then move to and land in front of the Departure Line (Line "D"). A sealed envelope containing the ~~Competition-competition~~ map and instructions will be given to the crewmember at Line "D" exactly 5 minutes before the scheduled departure.

The envelope must be retained for handing in results at the end of the event. All helicopter doors must be fitted.

The sealed envelope will contain the following information:

- + The flying time for the event from Line "D" to Line "A" will be stated on the outside of the envelope.
- + The calculated flying time from scheduled departure to arrival at the search zone exit in accordance with 5.1.3 and the distance.
- + The true course from the departure line to the first MFO.
- + Geographical position of TP1 and TP3, in latitude and longitude.
- + Schematic of the search zone.
- + The Competition map with the following information indicated:
 - The position of MFO 1 and MFO 2
 - The position of TP 2
 - The search zone
 - The entry and exit gates of the search zone
 - Target panel locations

No other map than the competition map provided by the ~~Organizer~~ ~~Organiser~~ will be allowed on board during this event. Other maps should be ~~surrendered~~ ~~surrendered~~.
Infringement will incur a penalty of 100 points. In the interest of safety an ICAO 1: 500,000 map will be permitted in a sealed envelop or box.

5.1.7 Departure:

The helicopter will depart Line “D” on its given departure time. Early or late departures will be penalized.

5.1.8 Search Zone.

The search zone will include ten (10) 3 x 2 metre orange panels, on which black letters or signs will be painted. The entry and exit gates will be marked on the ground ~~each~~ by 2 x 15 metre by 1 metre white panels and 1 x orange centre panel 1 metre by 5 metres to form a 35 metre line. ~~The entry gate is marked with I (in) and the exit gate is marked with O (out) in black on the orange centre panels.~~

~~one metre wide and 15 m long white stripes, with the I (in) and O (out) orange panels in the centre space of five (5) metres.~~ The competitor must identify each sign at its specific location.

Penalty points will be incurred for not vacating the search zone on time, and for not entering or exiting the search zone correctly through the 35 metre entry and exit gates. The panels must be placed in such a manner that the distance covered to overfly all search zone panels is less than 10 nautical miles (18.5 km).

5.1.9 Leg TP3 to MFO 2:

The helicopter will be flown from TP3 to MFO 2 in a straight line.

5.1.10 Enroute Drop Zone:

In a determined drop zone (location as described in para 5.1.0), the crew will drop a bag on each of the two five (5) metre diameter target circles, which are marked on the ground and 100 metres apart in the direction of flight.

Dropping the bags will be performed at a height of not less than ten (10) ~~metres~~ ~~metres~~ AGL and at a minimum ground speed of 30 kph.

The time elapsed between the first and second bags touching the ground shall not exceed 12 seconds.

The compulsory target order is “Target One” then “Target Two”.

Where the bag hits the ground first will be considered the impact point for scoring purposes.

5.1.11 Leg MFO 2 to Line “A”:

The helicopter will be flown from MFO 2 to Line “A” in a straight line.

The descent will start progressively in the last 3 kilometres, in order to pass vertically over Line “A” at a height of 30 +/- 15 metres AGL.

Ground speed less than 30 kph during the last two (2) kilometres to Line "A" will be ~~penalized~~ ~~penalised~~ for each infringement. The landing light must be on for the final two (2) kilometres.

5.1.12 Arrival Line "A":

Line "A" will be identified on the ground by ~~one~~ ~~(1)~~ metre wide and two 15 metre long yellow stripes, with a blank ~~center~~ ~~centre~~ space of ~~five~~ ~~(5)~~ metres.

5.1.13 Determining Arrival Time:

The time will stop when the nose of the helicopter crosses Line "A" or its ~~extension~~ ~~extensions~~ to left or right side.

5.1.14 ~~Manoeuvring~~ ~~Manoeuvring~~ Box Line "A" to Line "F":

After crossing Line "A", the helicopter will fly a rectangular box.

All competitors will perform turns in the box in the direction assigned during the pre-event briefing (see drawing, Annex 1).

This is a timed manoeuvre. Imposed flight time between line "A" and line "F" will be 1 minute. Time begins when the nose of the helicopter crosses Line "A" and stops as the nose ~~of of the helicopter crosses~~ ~~helicopter crosses~~ Line "F".

The descent will take place inside the manoeuvring box. Any hovering between Lines A and F the will be penalized for each infringement.

5.1.15 Line "F":

The helicopter will pass Line "F" at a height of 15, +/- 5 metres. Passing Line "F", the competitor will continue in a straight line to reach the target (Dog House) positioned 50 metres after line "F" (see drawing, Annex 1) to put down the load.

5.1.16 Dog House and Load Put Down.

The target (see drawing, Annex 2) is composed of two white 2 x 2 metre panels, assembled at an angle of 90 degrees, resting on the ground and forming two 45 degree angles. The load-receiving hole is a 0.4 x 0.4 metre square, the centre of which is one metre above the ground. Only the hole facing the arrival direction will be valid for scoring.

The crew member will, after crossing Line "F", deploy a rope (see drawing, Annex 1) seven (7) metres long, on the opposite side to the pilot, at the end of which a skittle will be attached.

This is a timed manoeuvre. Maximum time between Line "F" and releasing the rope is 20 seconds.

The rope must be fully extended and free of knots prior to crossing the line five (5) metres short of the dog house. Hovering between Lines "F" and the Dog House (Line "C") is permitted.

The rope must remain held at a grip at its end by the crewmember who must have both hands visible to the judges.

~~Manoeuvring~~ ~~Manoeuvring~~ of the rope is allowed provided the rope is not shortened by any part of the body below the red flag.

The crewmember will remain fastened and seated on his seat at all times.

The crew must put the skittle into the square hole without touching the surface of the doghouse releasing the rope as soon as the exercise is finished. The doghouse open sides are not part of the roof. Time stops when rope is released.

If the skittle is dropped in the box, penalty points will be incurred for every tenth of a second above 20 seconds from Line “F”. A skittle dropped outside box incurs 30 penalty points.

5.1.17 Landing Zone:

A 10-metre landing zone next to the Dog House will be designated for the competitor to handover the envelope.

The Landing Zone is positioned at a safe distance from the Dog House (approx. 25 - 30 metres). Competitors who do not land in the Landing Zone receive 30 penalty points (see infringements).

Immediately after landing in the Landing Zone, the crew member hands to the ~~Judge~~judge, the envelope containing the identification sheet for the ten panels and turning points and the competition navigation map. The competitor’s competition number and/or name will be clearly featured on the outside of the envelope, on the map and on the identification sheet.

5.1.18 Disqualification/Black Flag:

A competitor will be disqualified during the event if any of the following situations should occur:

- A black flag will be shown at Line “A” when a competitor is more than 200 seconds early or late on his given time of arrival. In such case the competitor may be waved off and should vacate the vicinity of Line “A” immediately to avoid conflict with the next aircraft, and return directly to the landing zone.
- If the rope is caught on the helicopter as it departs pulling or dragging the Dog House, this will be considered as unsafe flying.
- For any flight violation and/or unsafe flight manoeuvre / act during the event including aircraft movement to and from the aircraft parking area, i.e., parking area to the preparation line or from the landing zone to aircraft parking area.

5.1.19 Tie Breaker:

If there is a tie for a place, the crew with the most accurate arrival time at Line “A” will be the winner. Should these times be the same, then the shortest time between “F” and “C” will be used to determine the place.

5.1.20 Scoring:

$300 - P = \text{Score}$. Score is determined by subtracting the Penalty Points from 300. The minimum score achievable is zero.

SCORING – EVENT No. 1 (Navigation)

EVENT 1 INFRINGEMENTS

PENALTY POINTS

Early departure from Line “D”	100
Not departing Line “D” within 15 seconds of Departure Time	50
Each missed, not correctly passed or not identified number of Turning Point	20
<u>Turning point not passed within 500 metres</u>	<u>20</u>
Entry outside the gate to the Search Zone (not using the Entrance Gate)	10
Exit outside the gate of the Search Zone (not using the Exit Gate) <u>Final exit of the search box outside the 500 metre wide exit gate</u>	10 <u>10*</u>
Each Target/Panel in Search Zone missed or incorrectly identified	10
Each tenth of a second late in exiting the Search Zone (maximum 50 points)	0.1*
Early exit from the Search Zone by more than 5 minutes (300 seconds)	<u>50**</u>
Bag not hitting a target circle	5
Violation of the minimum dropping height	10
Violation of minimum dropping speed. More than 12 seconds between bag impacts.	10
Bags dropped in the wrong order	5
Ground Speed less than 30 kph during the last 2 kilometres before Line “A”	10
Missing Line “A” (“-”) (crossing Arrival Line outside given dimensions of 35 metres)	10
No landing light “ON” during the last 2 kilometres before Line “A”	5
Hovering (no/no visible or measurable forward motion-)motion) during the last 2 kilometres before Line “A”	30
Each tenth of a second early or late on Line “A”	0.1
Early or late arrival over 200 seconds at Line “A” Disqualification	300
Omitting any of the manoeuvres after passing Line “A”	30
Each tenth of a second early or late on Line “F”	0.1
Each tenth of a second more than 20 seconds between Line “F” and Line “C”	0.1
Each hovering event (event -no(no visible or measurable forward motion-)motion)	
Between Line “A” and “F”	30
Each contact of the skittle with the ground between Line “F” and Line “C”	5
Crew not remaining seated or fastened (both hands and legs not visible)	30
Rope shortened, or has knots, or handled below red flag	30
Rope not deployed 5 metres before the dog house	10
Each touch of the skittle on the Dog House roof	2
Skittle dropped outside the Dog House Box	30
Unsafe flight manoeuvre, violation or act before, during or after the event	300
Not Landing in the 10 Metre Zone	30

* If the judges see a helicopter passing outside the 35-500 m exit gate they stop their watches when the helicopter crosses the extensions of left or right side of exit gate. If a helicopter exiting search zone is not seen by judges at exit gate the competitor will be ~~penalized~~ penalised 50 points.

** No penalties for transient exiting and re-entry to the search box.

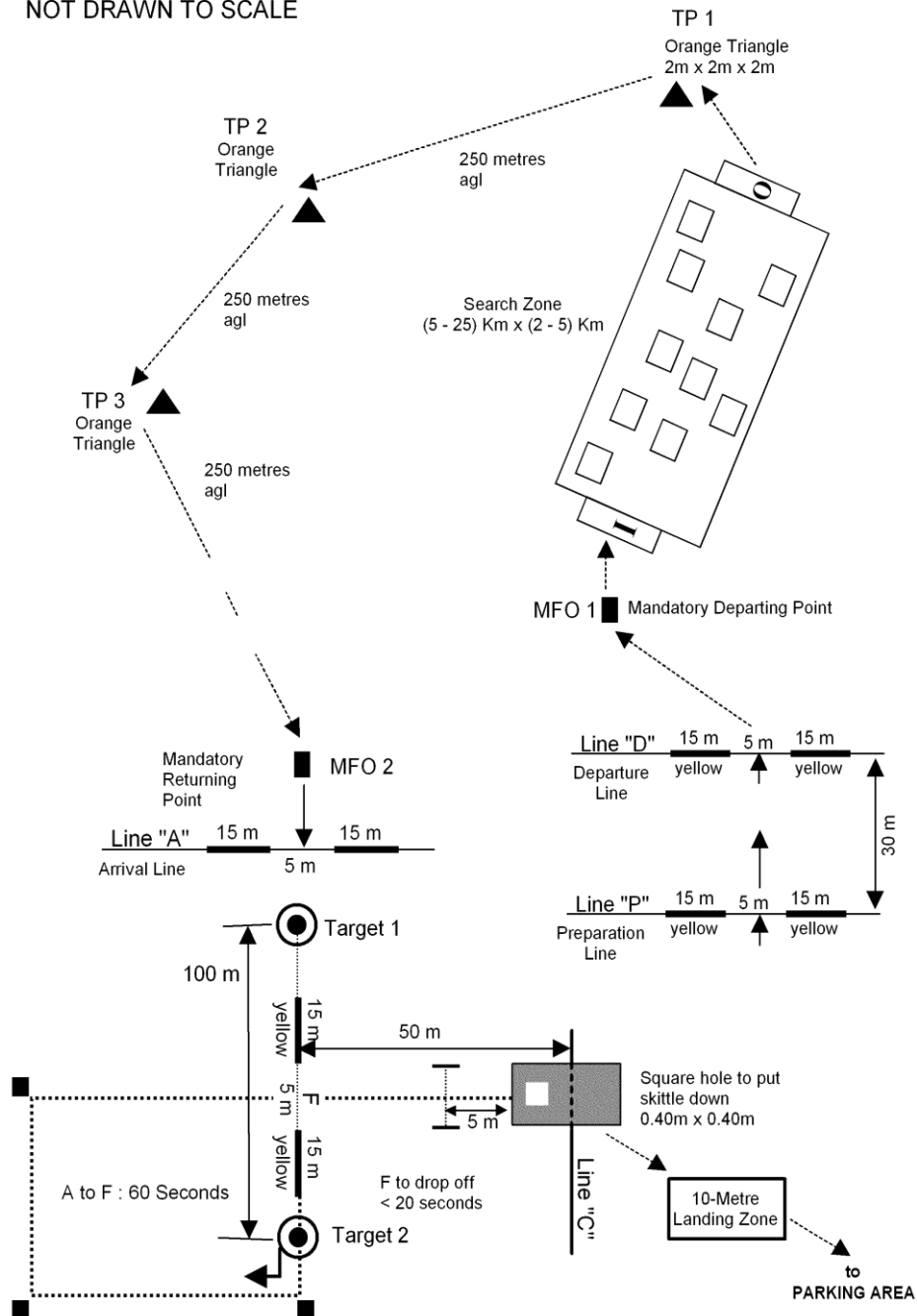
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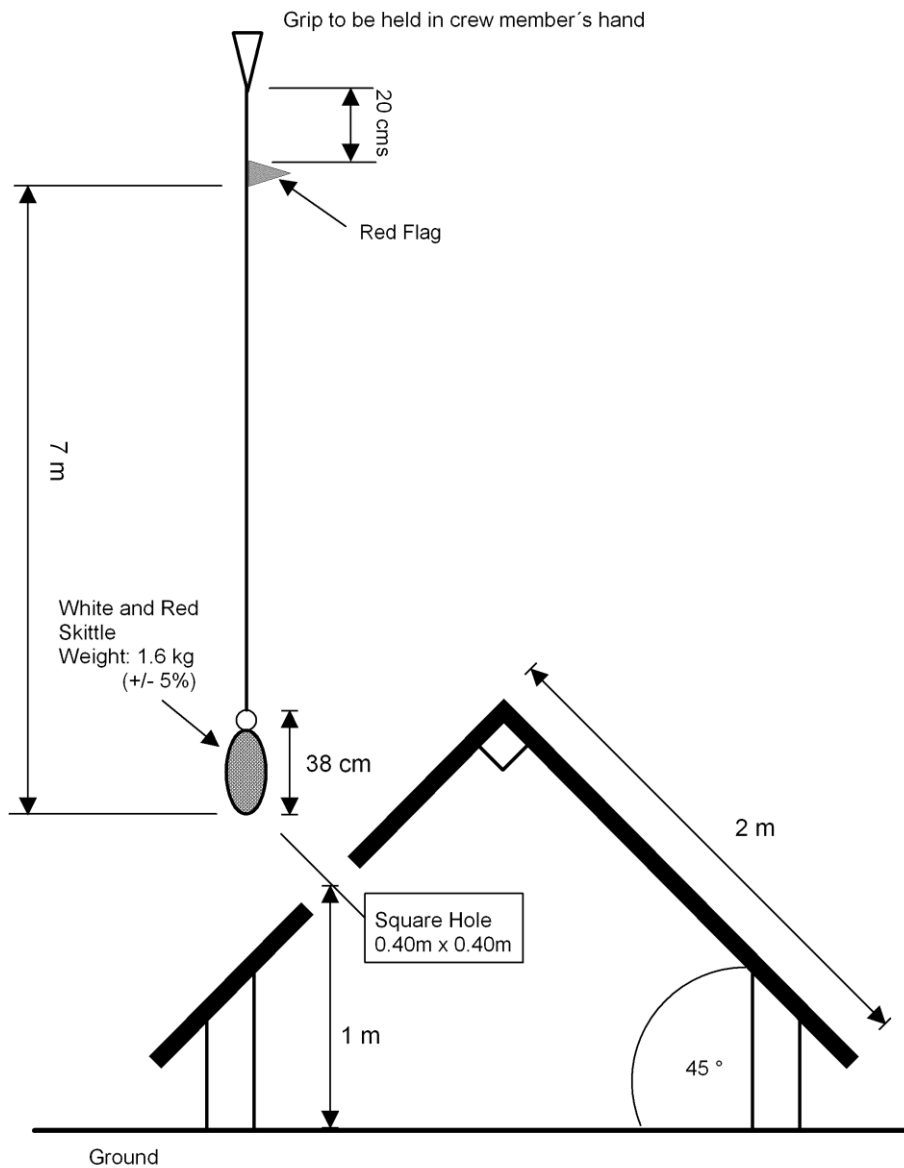
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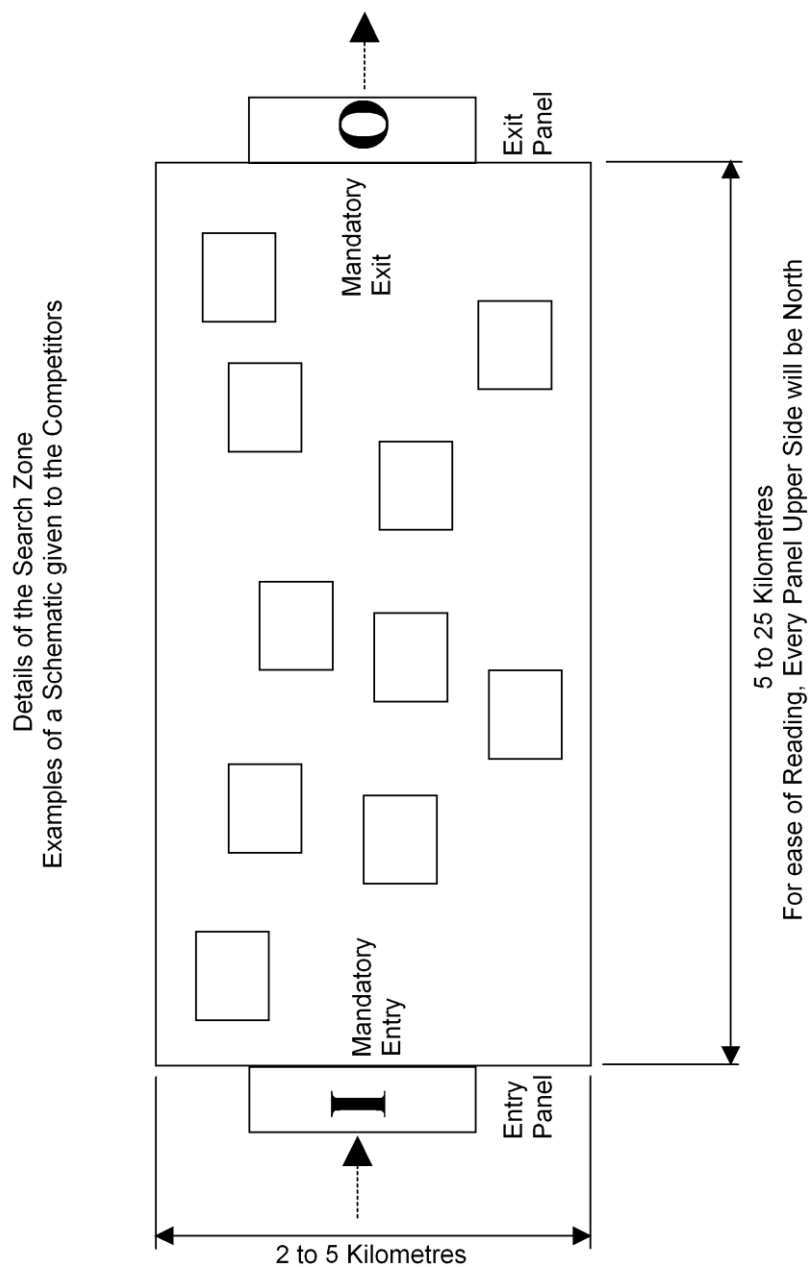
Annex 1 - Event 5.1 Example of the Navigational Course
NOT DRAWN TO SCALE



Annex 2 - Event 5.1 Dog House and Load Put Down



Annex 3 - Event 5.1 - Search Zone Details



Annex 4 - Event 5.1 - Type of Panel to be used



Letters and Signs will be Black on Orange Panels.
Size, 3 Metres Wide and 2 Metres High.

Event 5.2 – Parallel Precision

5.2.0 Event Description:

The event will be flown with two competitors at the same time on parallel courses. The event requires constant height, low level flying with manoeuvres on a course, of which the basic parameters are known with the details as described in 5.2.6 and Annex 1. The choices as listed in 5.2.9 will be made public by the ~~Championship Event~~ Director at the event briefing. The course should be ~~laid~~aid out against the wind direction.

5.2.1 General Requirements:

The helicopter will be flown with all doors on and closed. Arched cockpit doors certified by the manufacturers may be used. Special window bubbles in cockpit doors are not permitted. The crew member must stay within the helicopter, on his seat and in the normal position. The crew must install the attachment points for the ropes and the tape markings on both sides of the fuselage, skids or wheels before the competition. These attachment points are such that when the helicopter is on the ground the ends of both attachment points are just touching the ground. There will be a loop at the end of each attachment point, and each attachment point strong enough to hold a weight of 5 kg. The shorter rope attachment point should be clearly marked. During the morning briefing, competitors will receive their start time at which the helicopters must be at the preparation line.

5.2.2 Composition of the course:

The course is composed of two parallel corridors, having a length of 50 metres and a width of 1 metre, identified by ground markings. The distance between the corridors is at least 60 metres. At both limits of the corridors, perpendicular corridors with a length of 10 metre to each ~~side~~side are marked on the ground. Additional two flag marks will be placed every ten metres left and right of each perpendicular corridor. These additional corridors and marks are to assist the pilots to hold the helicopter in the 1 metre square at the corridors limits during turns. The arrival lines “A” will be 20 metres from the end of the two corridors, and will both be 5 cm wide and long enough to be visible on both sides of the helicopter by the crews.

5.2.3 Flight Height Control:

Two ropes or suitable chains or a combination of both will be attached by judges/assistant judges, the shorter one attached to the aircraft fuselage under the pilot's seat, the longer attached to the rear end of the skid opposite to the pilot side, as far as possible from the first rope/chain (see drawing, Annex 3). The rope/chain lengths are exactly 2 metres for the first one and exactly 3 metres for the second one, being measured from the lowest point of the undercarriage (skid or wheel) to the lowest end of the weights. For a better make-out the ropes/chains may be painted red or orange.

5.2.4 Preparation line:

The competitor will come to Line P (Preparation).

Judges will connect the ropes to attachment points provided by the competitor and will check the positioning of the two tape markings, as chosen by the competitor on both sides of the fuselage, or both skids or both wheels.

At the Line P, the crews are allowed to lift the helicopter into a hover with the crew member either inside or outside the helicopter to communicate to the pilot the height of the helicopter and the status of the weights. One 360 degree clockwise turn and one 360 degree anticlockwise turn is permitted to ensure the weights are attached safely. The helicopter should then land again. Judges are not allowed to make any indications to competitors during this procedure.

5.2.5 Departure line:

The helicopter will be landed on Line D. Upon an indication of ready from both pilots or crew members and when the course is clear of the previous competitors, the judge will signal the start by dropping a flag or the use of a suitable indication system, which must be demonstrated to the competitors at the morning briefing. The time starts.

5.2.6 ~~Manoeuvring~~Manoeuvring through the course:

The competitors will fly the ground marked courses, maintaining a height ranging from 2 to 3 metres, keeping the bottom weight on the ground and the top weight off the ground.

The corridors will be flown 5 times. First time from Line D forward with a 360 ° turn at the ~~corridor~~ corridors upper limit. Second time returning backwards to the first end with a 90 ° turn at the limit. Third time sideways with a ~~second 360~~ second 360 ° turn at the upper limit. Fourth time returning sideways to the first end with a 90 ° turn at the limit. ~~Fifth time~~ Fifth time forward passing ~~over the~~ over the limit of markings and landing exactly on the arrival line.

The landing must be performed in one try. Slide and double landings will be ~~penalized~~ penalised.

The competitors will perform the 360 ° turns around the yaw axis, one turn will be clockwise and the other anti clockwise. Each turn must take a minimum time of 15 seconds.

Performing the 90 ° turns, the first turn will be anti-clockwise and the second clockwise.

5.2.7 Measurements:

Corridor and height violations will be recorded in cumulative tenths of a second. Final times will be rounded to the nearest tenth of a second as described in Chapter 2 para 13.14.

The violation of corridor limits is defined as when the attachment point of the shorter rope (2 meters long) is outside the corridor limits marked on the ground.

The violation of height is defined as when either the short rope touched the ground or the end of the long rope is off the ground from a height above 3 metres.

The measurement on Arrival line A will be from the forward limit of the tapes installed on the helicopters (skids or fuselage) to the nearest limit of 5 cm arrival line. A forward limit of the tape within the 5 cm arrival line counts as 0 cm.

Should helicopter tapes be installed on the fuselage or above ground level, a plumb bob will be used to assist in accurate measurement.

5.2.8 Timing:

The time starts when the start signal is given at the departure line and stops when the first part of the helicopter landing gear touches the ground.

5.2.9 Variables for determining the Direction of 360 ° Turn:

- 1) First turn Clockwise, Second Turn Anti Clockwise
- 2) First turn Anti Clockwise, Second turn Clockwise

5.2.10 Tie Breaker:

If there is a tie for a place, the winning crew is determined by the shortest flight time.

5.2.11 Scoring:

300-P = score. Score is determined by subtracting the Penalty Points from 300. The minimum score is zero.

SCORING - EVENT 5. 2 (Parallel Precision)

INFRINGEMENT

PENALTY POINTS

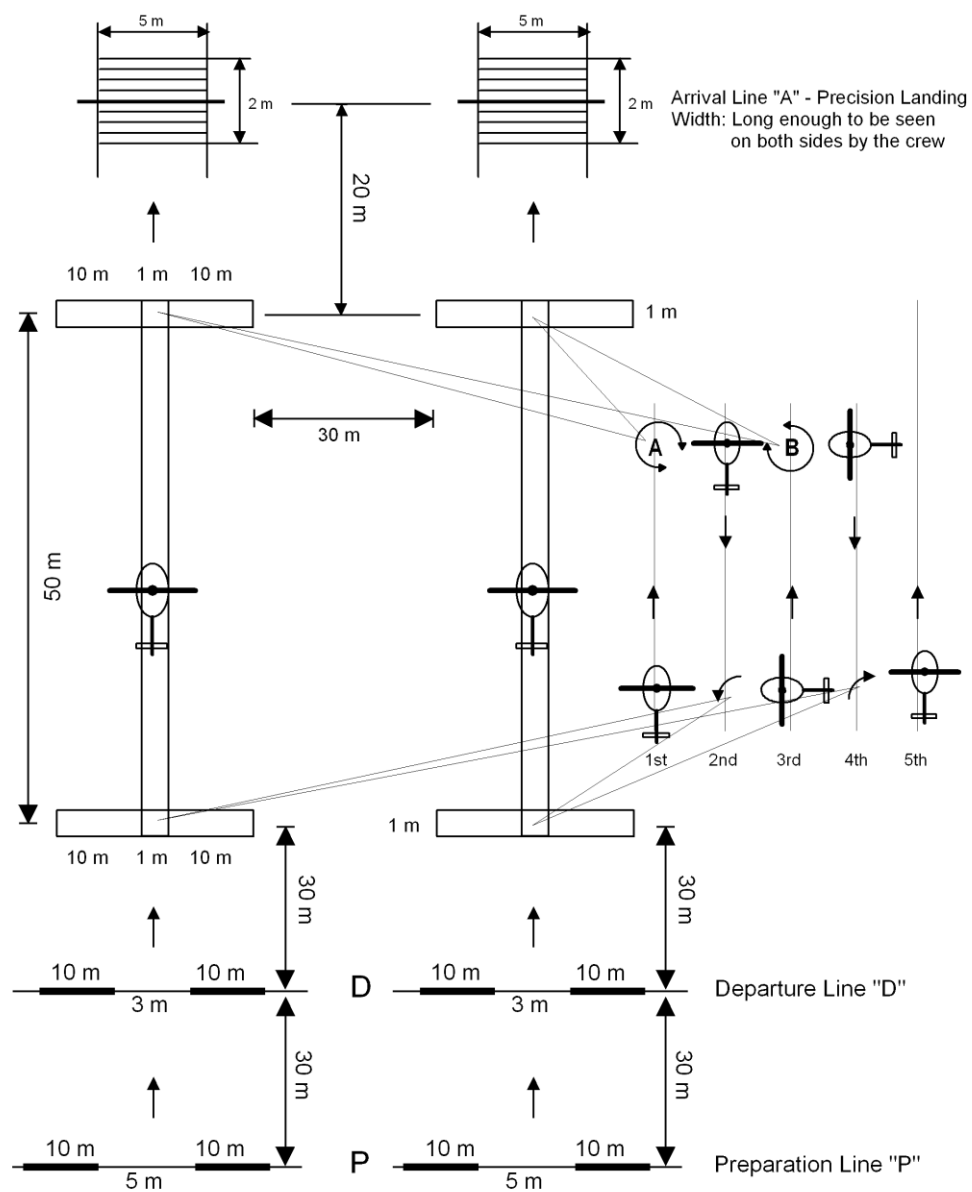
Each tenth of a second above 2'15" of flight (135 seconds) between Lines D and A *	0.1
Violation of the corridor limits, of the short rope attachment per tenth of a second *	0.1
Each time the bottom weight is off the ground per tenth of a second *	0.1
Each time the top weight touches the ground per tenth of a second *	0.1
Duration of a hovering 360° turn shorter than 15 seconds ***	15
For omitting any of the manoeuvres	25
For each occurrence of a change of heading exceeding 30 degrees	10
Landing scale **	0–120
Double Landing (Landing after touching ground with any part – Time Stop – the helicopter rises helicopter rises completely free from the ground before next touch down down)	25
Slide Landing (visible visible and measurable forward measurable forward motion or turn of the fuselage	
- skids skids , wheels - after first ground contact contact)	25

* Rounded to the nearest tenth of a second as in para 13.14 of Chapter 2.

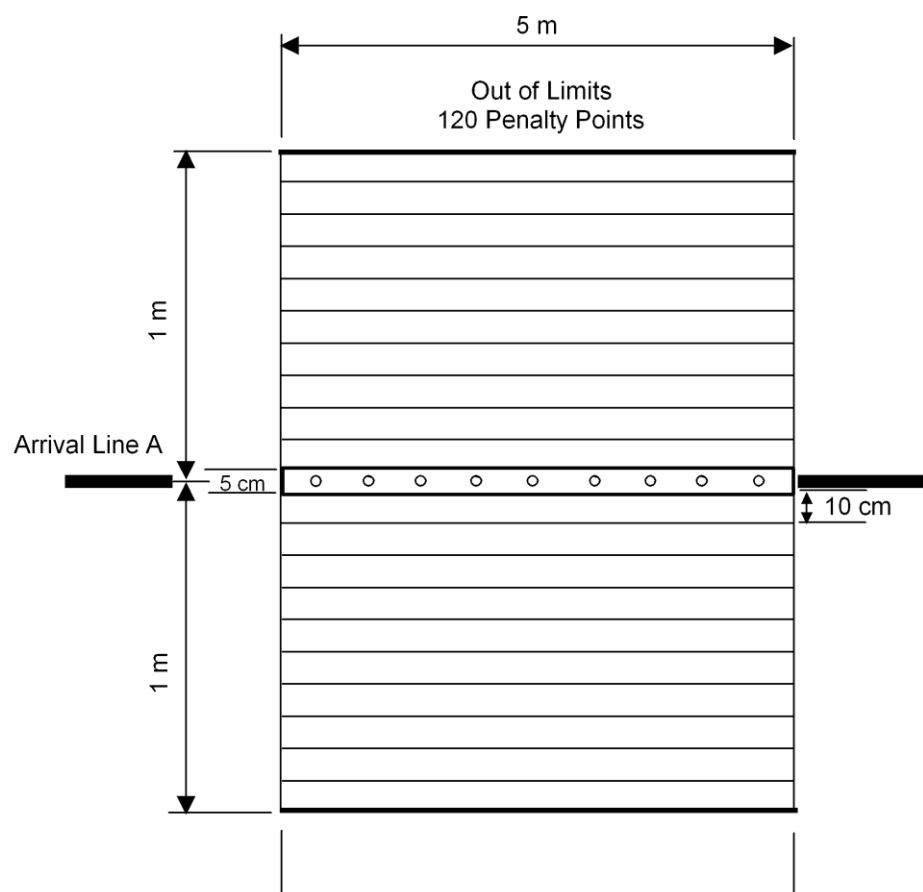
** The distance of each skid from the nearest limit of the 5 cm arrival line is measured in cm and added together using 1 penalty point per cm. 120 points is the maximum penalty. Part of a cm should be rounded up to the next full cm.

*** i.e., turn duration is 14.94 seconds or less.

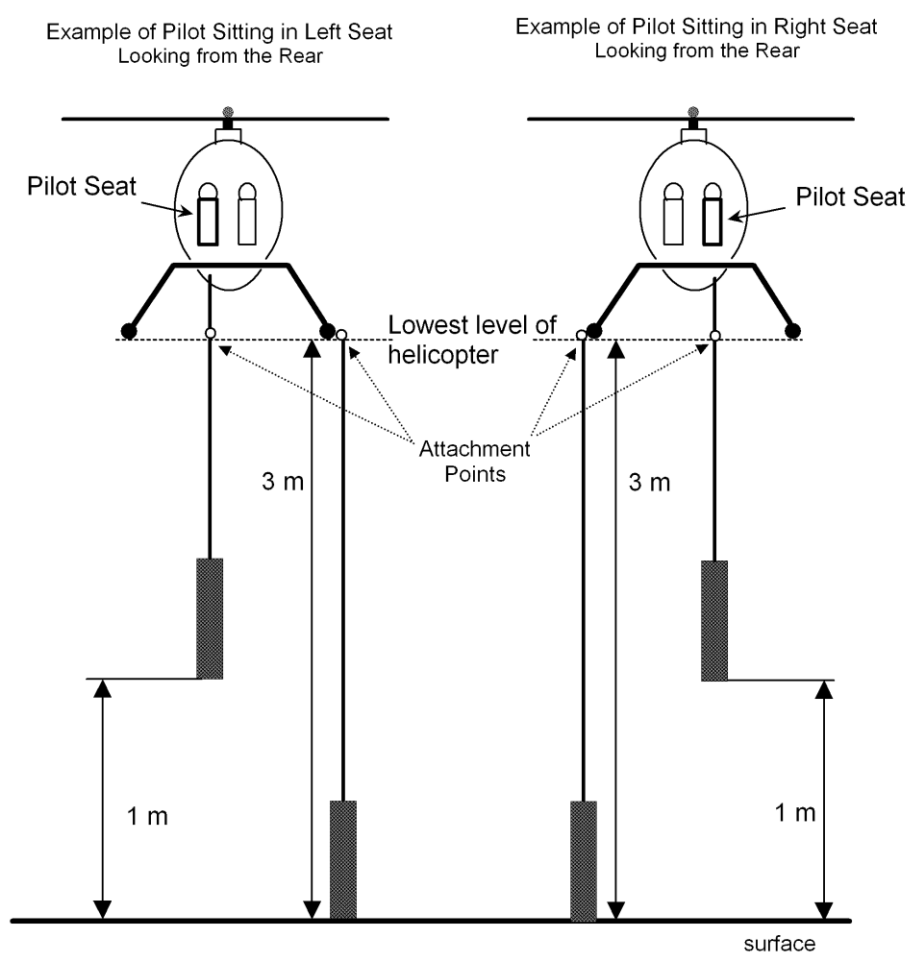
ANNEX 1 - Event 5.2 - Parallel Hover Parcours
NOT TO SCALE



Annex 2 - Event 5.2 - Precision Landing Area



Annex 3 - Event 5.2 Length and Attachment of Ropes



Event 5.3 – Parallel Fender Rigging

5.3.0 Event Description:

The event will be flown by two competitors at the same time on parallel ~~courses.~~~~The~~courses. The event requires precise flying with a load (~~fender~~~~(-)~~fender) and rope lengths ~~in~~~~in~~a sequence of 4, 6 and 8 metres, and a flying time of 60 seconds. The direction of flight through each entrance gate is made public by the ~~Championship Event~~ Director at the event briefing.

5.3.1 General requirements:

The helicopter will be configured with a closed door on the pilot's side. Special window bubbles in cockpit doors are not permitted. Outside mirrors and technical aid such as radio altimeters are not permitted and such use will result in disqualification. The crews will be correctly harnessed. The crew members are in the normal seating position, both legs are to be kept within the cockpit. During the morning briefing competitors will receive their time at which the helicopters must be at the preparation line –line P.

5.3.2 Departure line:

Once the start positions are free, the responsible judge will call the next competitors from the preparation lines (P-line) forward to the departure lines. The helicopters must land in front of the departure lines. Assistant judges will hand the crew members the fenders with their ropes, each with 3 red flags fixed in distances of 4, 6 and 8 metres from the top of the fender. There are 2 additional ~~wedden~~wooden balls as handling aid, each 20 cm above the flags. At the end of the rope a grip 20 cm above the 8 m flag is fastened. The fender will remain outside the helicopter on the ground. The crew member will hold the ~~the~~ rope at the respective handling aid. Upon an indication of ready from the pilots (or crew members), the judge will signal the start for competitors by dropping a flag or use of a suitable indication system (Such a system has to be demonstrated to the competitors at the briefing). The competition time starts.

5.3.3 ~~Manoeuvring~~Manoeuvring through the course:

The pilots will take off and after passing the Gate "D" (marked by flags), fly to the entrance gate. The crew member must manoeuvre the fender through Gate "D" and the entrance gate and into the containers. The rope must be fully extended and free of knots prior to crossing the departure line (D-line). The pilot will fly to the first area, and the crew member will put down the fender into the first container.

The rope will remain held at the handling aid above the relevant red flag by the crew member, who must have both hands visible. ~~Manoeuvring~~Manoeuvring of the rope is allowed provided the rope is not lengthened or shortened.

After put down the fender into the first container, the crew member will deploy the rope to the appropriate length for the second container and lift up the fender again from the container.

The pilot must proceed to the next container area. The crew member must manoeuvre the fender through the entrance gate and into the second container.

After put down the fender into the second container the crew member will deploy the rope to the length for third container and lift up the fender.

After the third container and letting go of the rope, the helicopter must leave the competition area by passing the exit gate.

5.3.4 Timing:

The time starts when the start signal is given at the departure line and overall time for each crew is stopped when the crew member has let go of the rope.

The total time for this event is a maximum of 60 seconds.

5.3.5 Tie breaker.

If there is a tie for a place, the winning crew is determined by the shortest flight time.

5.3.6 Scoring

300-P = Score. Score is determined by subtracting Penalty Points from 300. The minimum score achievable is zero.

Scoring Event No. 5.3 – (5.3 – Parallel Fender Rigging)

Infringement	Penalty points
For each tenth of a second flown over total times limits	0.1 *
Touching the external sides of the container with the fender	
For each touch	3
Touching the ground with the fender between D- line and containers:	
For each touch:	10
Fender not put down into the container	50
Fender lost en route	300
Fender put into container with wrong rope length, rope shortened or lengthened (for for each infringement)infringement)	
30	
Crew not staying seated or harnessed:	50
Rope not deployed to full metres or has knots when flying over the D-line or lifting off from containers (for for each infringement)infringement)	
20	
Overfly of the exit gate – helicopter nose is not first part of helicopter to pass the marked gate or the helicopter does not pass the gate at all for each infringement infringement:	
10	
Fender not passing the Gate “D”	10

Missing the Entrance-Gate by missing or fender over poles

~~(for each infringement)~~ infringement

15

* Disqualification (black flag) if total time exceeds 5 minutes

Measurements of competition area and equipment (see attached sketch):

The competition area is composed of two parallel courses with a space of 30 metres between them. Each competition course consists of:

Preparation lines "P" : two 10 metre- long lines with 5 metres space between the two lines.

Departure lines "D" : two 10 metre-long lines with 3 metres between the two lines, to be positioned 30 metres after the "P" lines.

Three Entrance ~~Gates~~ Gates: Internal width 1 m, composed each of two 2 m high poles.

Three container ~~squares~~ squares: 40 x 40 metre square, clearly marked, the first to be positioned 20 metres after the "D" line.

Three ~~containers~~ containers: each to be positioned in a container squares and filled with water or other heavy material to prevent moving.

Measurement of each container:

~~Height~~ Height: less than 1.20 metre

Diameter of container opening: 48 cm +/- 2 cm

Measurement of fender:

Diameter of the fender is 30 centimetres

~~Height~~ Height: 0,8 metres – 1 metre

Weight of fender (to be achieved by filling with sand or water): 7 – 8 kg

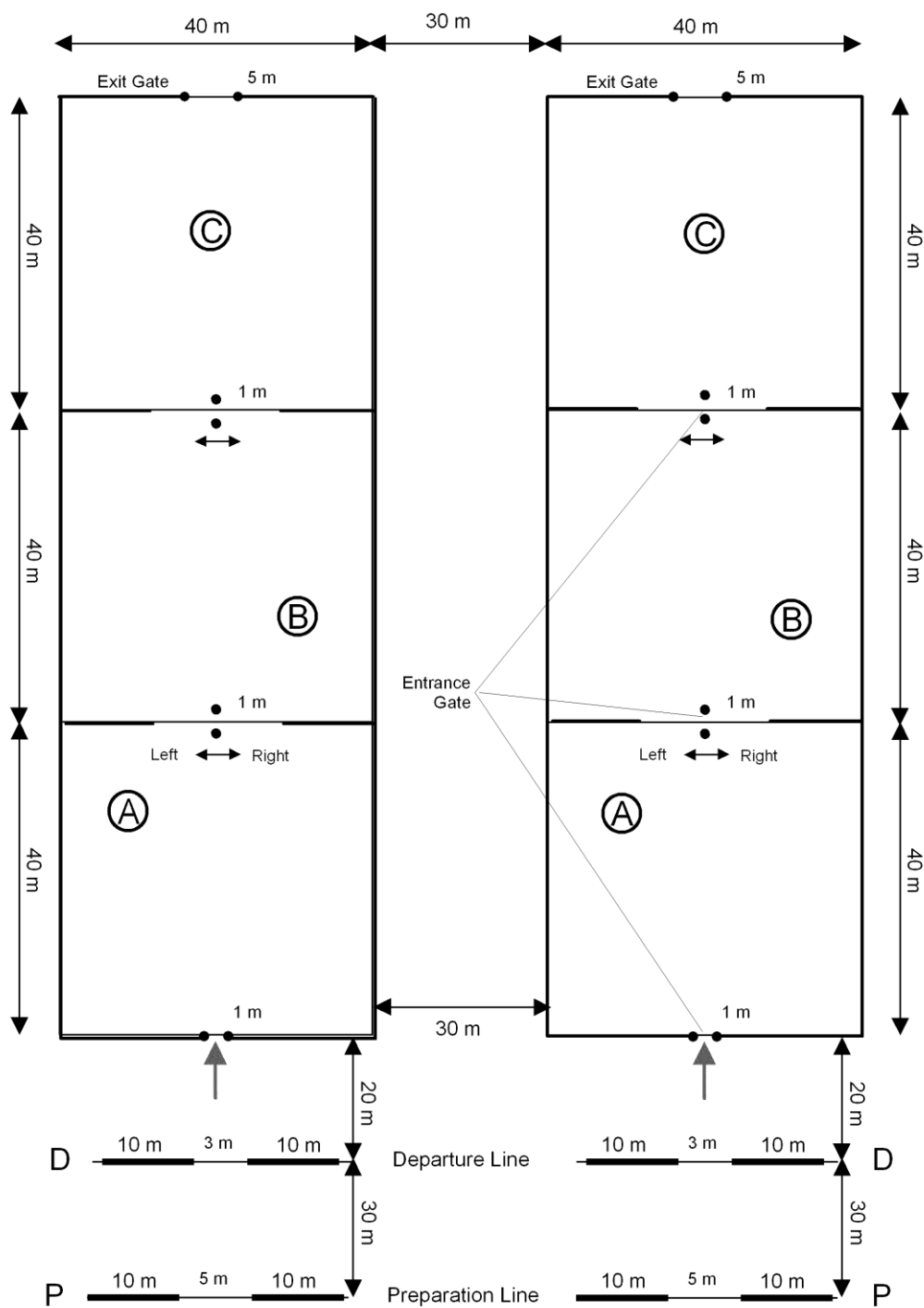
Length of rope 8,20 metres from the top of the fender to ~~the grip~~ the grip.

Red flags at distances of 4, 6 and 8 metres from the top of the fender.

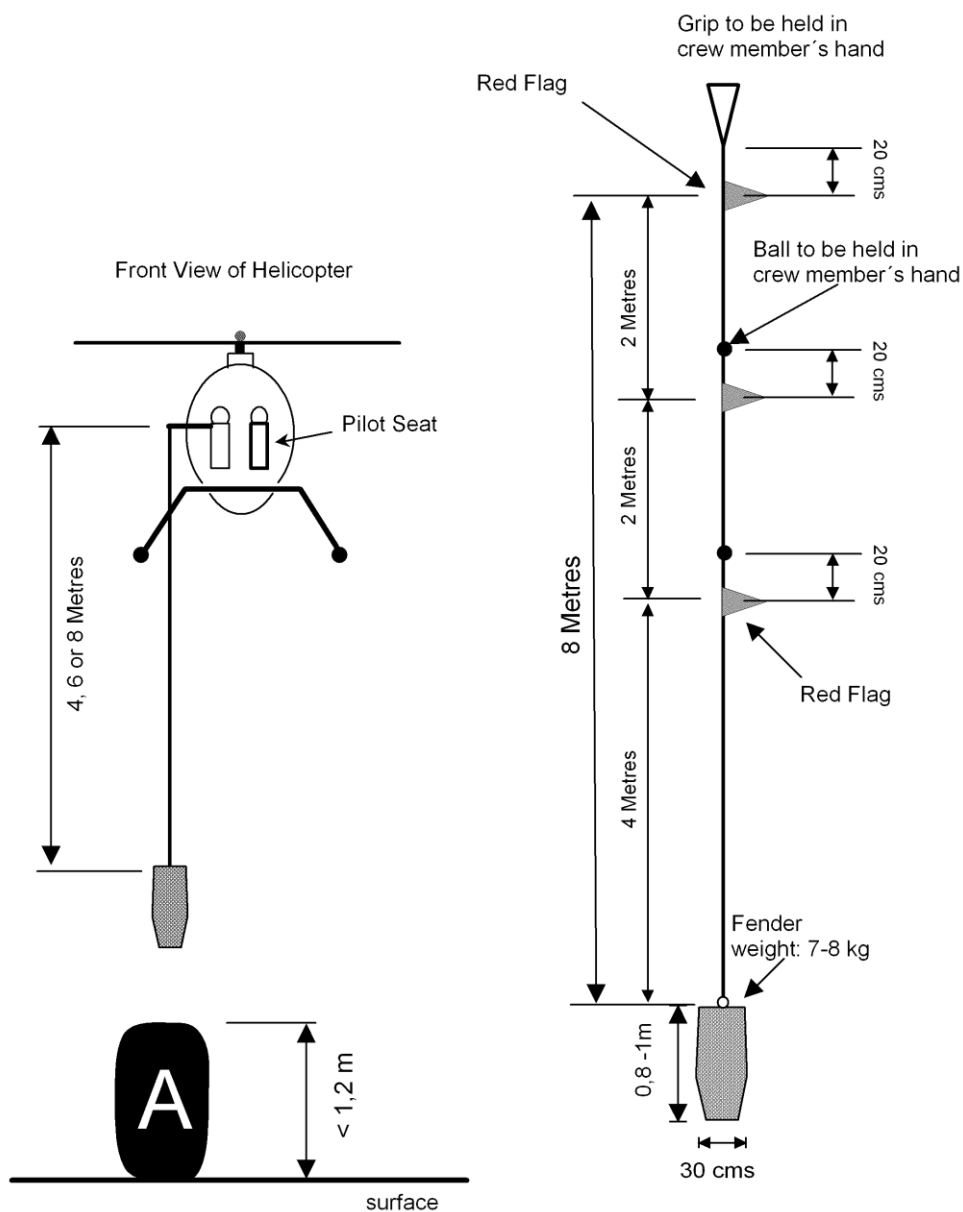
Wooden balls, 20 cm above the red flags at 4 and 6 metres.

The containers and fenders can be made of any material or colour, but must be uniform.

ANNEX 1 - Event 5.3 Parallel Fender Rigging Parcour
NOT TO SCALE



Annex 2 - Event 5.3 Container and Length of Ropes
NOT TO SCALE



Event 5.4 - Parallel Slalom

5.4.0 Event Description:

The Event will be flown by two competitors at the same time on parallel courses. The Event requires precise flying to manoeuvre a bucket, attached to a rope, twice through 6 numbered gates and setting it down finally on a table target. The helicopter will be configured with the pilot's door on and closed. The flying time is limited to 2 minutes and 15 seconds (135 seconds).

5.4.1 Preparation:

The helicopters will come to the preparation line and wait for the previous helicopters to finish.

At a signal from the judges, the helicopters will move to land on the Departure line.

The ~~Judges-judges~~ / ~~Assistant-assistant Judges-judges~~ will hand over the rope with the attached bucket, empty of water. The future water level is determined by 9 lateral holes. The 9 holes will each be of 1cm diameter and the bottom of the holes will be 4 cm from the top of the bucket. ~~(see)~~(see) drawing Annex 3)

The rope will be held by the crew member, sitting on a seat on the side opposite to the pilot, in a normal position and wearing the safety harness correctly. The crew must remain seated. The rope will be placed on the floor of the cabin, either inside or outside the skids where fitted.

5.4.2 Start:

Upon an indication of ready from the pilots (or crew members), the judge will signal the start by dropping a flag or use of a suitable indication system (Such a system has to be demonstrated at the briefing). The helicopters will take off from the Departure Line with the bucket resting on the ground, the crew ~~member-holding~~member holding the rope above the first red flag (3m).

The pilot will fly to the container filled with water. The crew member will fill the bucket with water.

~~Manoeuvring~~Manoeuvring of the rope is allowed provided the rope is not shortened by any part of the body below the first red flag. After filling the bucket with water, the pilot will increase altitude and the crew member will deploy the 5 metre rope. The pilot will fly to the first gate and the rope will remain held by the crew member by the ball. Both hands must be visible.

5.4.3 Course and Gates:

The 6 numbered gates will be placed as per Annex 1 and the gates will be flown ~~consecutively from~~consecutively from 1 to 6 and back to 1 in ~~revers~~reverse order.

~~However-The~~the direction of flight through of each gate and the exact position of gates 5 and 6 will be made public by the ~~Championship-Event~~ Director on registration day. The choices are listed in 5.4.7. Arrows will be marked on ground.

To correctly pass a gate, the top of the bucket must pass below the top of the poles. If the bucket misses the gate it must be taken back around the outside of the poles before another attempt is made. Multiple opportunities to pass a gate correctly will be allowed. The judge will score correct or incorrect gate passage when the bucket is flown to the next gate.

5.4.4 Exit and Table:

After passing Gate 1 the second time, the crew member will deploy the 11 metre rope (~~Flag~~Flag No. 3) and the pilot will increase altitude. The rope must be fully extended and free of knots before reaching the 5 metre diameter circle around the centre of the table.

The rope will remain held by the crew member at the grip at its end.

~~Manoeuvring~~Manoeuvring of the rope is allowed provided the rope is not shortened by any part of the body below the upper flag. Both crew ~~member's~~members' hands must be visible.

The bucket must be put down within or as close as possible to the 30 cm centre target, in one try, then the rope must be dropped.

5.4.5 Timing:

The time starts when the start signal is given at the departure line and stops when the rope is released over the table.

5.4.6 Measurements:

Exiting the ~~center~~centre target by the outer edge of the bucket will be penalized.

The water left in the bucket will be measured after the competitor has completed.

The measuring will be done on the table and the table wiped dry after the bucket is removed.

Any difference of water level between departure and table will result in penalty points.

5.4.7 ~~Variables~~Variables:

There will be different gate directions determined by the Chief Judge.

The reference of Up, Down, Left or Right refer to the direction of flight through each gate with reference to Annex 1 with Up being the top of the page.

1) Gate 1 is always flown Up first and Down second time.

2) Gate 2, 3 and 4 Left or Right for both flights through.

3) Gate 5 and 6 Up or Down with exception of gate 6, which will be flown through only once.

4) The position of gate 5 and 6 can vary on their lines within the 30 metres range.

All variables are equal for both courses.

5.4.8 Tie Breaker:

If there is a tie for a place, the winning crew is determined by the shortest flight time.

5.4.9 Scoring:

$300 - P = \text{Score}$. Score is determined by subtracting the Penalty Points from 300. The minimum score achievable is zero.

Scoring - ~~Event No~~ Event No. 5.4 (5.4 (Parallel Slalom)

INFRINGEMENT	PENALTY POINTS
Passing a gate in the wrong order or different direction	20
Failing a gate by missing or bucket over poles	10
Bucket exiting the center <u>centre</u> target of the table	10
Bucket exiting the table-s <u>tables</u> 60 cm circle area	20
The bucket exiting the designated area 185 x 50 m	10
Water level – per tenth of centimetre missing *	0.1
Each tenth of a second in excess of 135 seconds **	0.1
Placing the bucket outside the target table *	80
Losing the bucket during the course	300
Rope not deployed before the 5 metre circle around the table	10
More than one attempt to put the bucket down, per try	15
Crew not staying seated or fastened (both hands and legs not visible)	50
Rope lengthened or shortened, has knots or handled below red flag (per each infringement <u>infringement</u>)	30

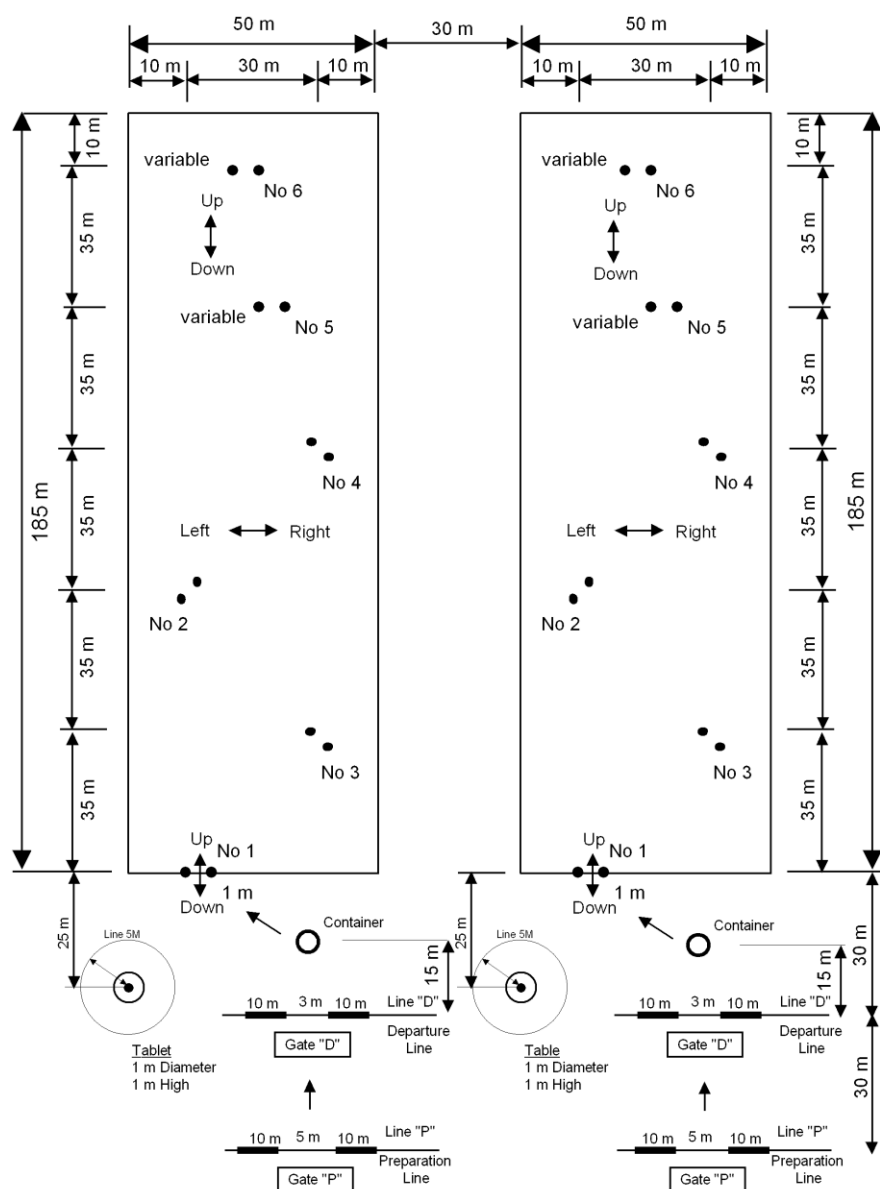
* If the bucket fell down from table or landed on the ground, any water left in it will be ~~measured and~~ measured and will incur normal penalties.

** Disqualification (black flag) if total time exceeds 4 minutes.

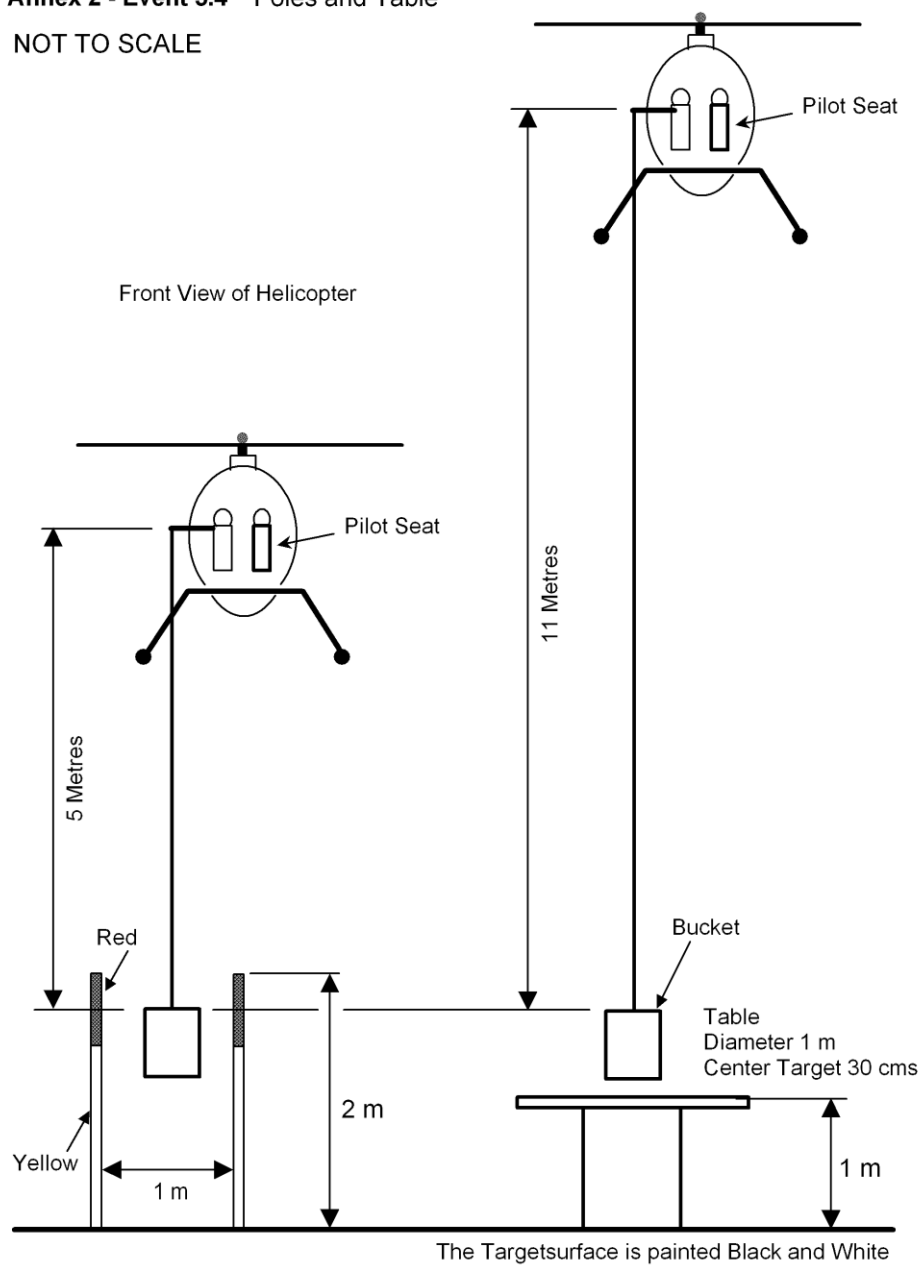
Measurements of competition area and equipment (~~see~~ see attached Annexes)

- 185 x 130 metres rectangular competition area, including two courses (see drawing Annex ~~1~~ 1).
- Twelve gates, internal width 1 m, each composed of two 2 m high poles.
(~~see drawing Annex~~ drawing Annex 2)
- Two round tables, 1 m diameter and 1 m high. The centre – circles with a ~~diameter~~ diameter of ~~30~~ 30 cms, painted in black ~~color~~ colour. Second circles with a diameter of 60 cms, painted in white ~~color~~ colour. The remaining surface of the table is painted red.
- Two ropes, equipped with 3 red flags, first 3 m ~~high~~ high, second 5 m high and third 11 metres high. 20 cm over 5 m flag a ball to be a handling aid and a grip at its end (see drawing Annex 3).
- Two buckets (see drawing, Annex 3) of ~~breakproof~~ break proof material and cylindrical form, containing 6.5 litres +/- 2 % with a maximum total weight of 8,5 kg.

ANNEX 1 - Event 5.4 Parallel Slalom Courses
NOT TO SCALE

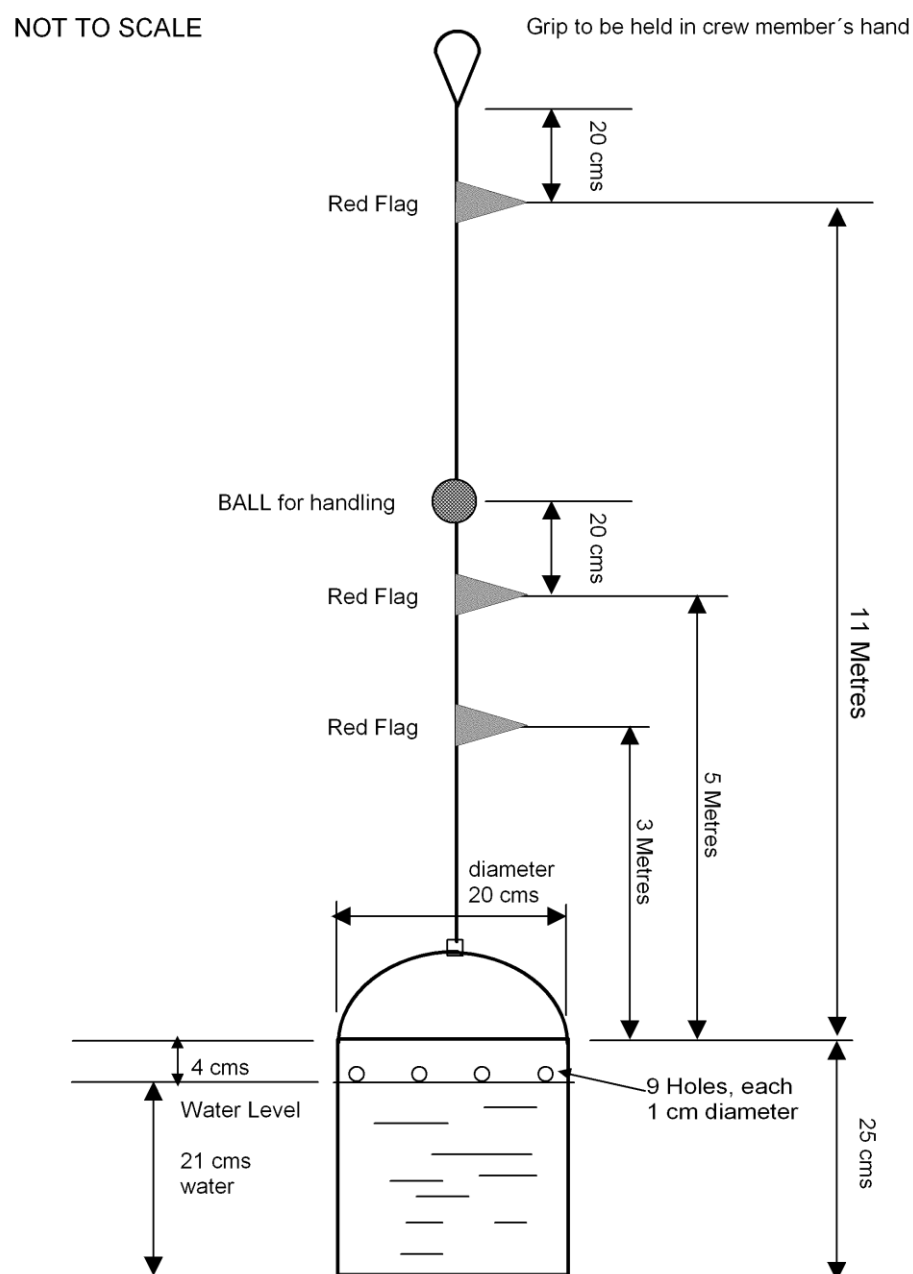


Annex 2 - Event 5.4 Poles and Table
NOT TO SCALE



Annex 3 - Event 5.4 - Rope Equipment and Bucket

NOT TO SCALE



Event 5.5 - Individual Freestyle

- 5.5.0 The aim of the non-obligatory free style event will be to demonstrate the top level of the helicopter manoeuvrability and to display the highest level of pilots' skill.
- 5.5.1 Any type of helicopter may be used but all proposed manoeuvres will not exceed the helicopter limitations contained in its Flight Manual and in the C. of A. and in no way decrease the level of flight safety.
- 5.5.2 Competitors may make use of smoke and/or music to enhance their display.
- 5.5.3 Competitors will compile and provide a brief and accurate description to their set of manoeuvres to be submitted to the ~~Judging-judging Panel~~ panel at least 48 hours before the event is scheduled to start.
- 5.5.4 The assessment of proposed manoeuvres will be made by the ~~Judging-judging Panel~~ panel and the competitor will be informed of possible objections not later than 24 hours before the event starts. Competitors may be required to eliminate or alter any manoeuvre considered as unsafe by the Judges.
- 5.5.5 A briefing will be held prior to the event.
- 5.5.6 Each flight will be a maximum of 4 minutes and not less than 3 ~~minutes~~ 45minutes 45 seconds.
- 5.5.7 The Freestyle event is open to any pilot or crew who paid the entry fee irrespective of whether they participated in events 1 - 4.
- 5.5.8 The Event will be flown within the display box, which is a defined area of **1000 metres** by **1000 metres** square ~~marked by~~ marked by four edge panels and a centre square and below a height of **300 metres / 1000 feet**/ above ground level.
- 5.5.9 Each edge panel to be 5 metre long and 1 metre wide. The centre square with 5 metre sides.
- 5.5.10 Judges will be placed at each corner to record infringements of the display box. Two ~~Judges-judges~~ will be available for timing purposes.
- 5.5.11 The Competitor may start, on the ground, anywhere within the display box.
- 5.5.12 Timing will commence from lift-off.
- 5.5.13 The competitor will finish, on the ground, in the centre square at the conclusion of his 4 minute program. Timing will finish at touch down of the helicopter in accordance with the submitted briefing.
- 5.5.14 Skilled ~~Judges-judges~~ will be selected by the Chief Judge from the ~~Panel~~ panel of ~~Judges-judges~~ and can include FAI CIG Delegates, but exclude Jury members.

SCORING* - EVENT No. 5 (INDIVIDUAL FREESTYLE)

Degree of Program difficulty	0-70
------------------------------	------

Flying technique / skill	0-70
--------------------------	------

General Impressions	0-60
---------------------	------

Infringement of box edge. Penalty <u>Penalty</u> / each violation	
--	--

20	
----	--

Flight above audience	DQ
-----------------------	----

For the duration of performance longer than 4 minutes / 240 seconds/ or shorter	
---	--

than 3 minutes, 45 seconds / 225 seconds/ --- Each second over or under penalty <u>penalty</u>	
---	--

1	
---	--

*The highest and lowest scores will be eliminated. Of the remaining scores the arithmetic mean will be calculated, from which the penalty points will be subtracted.

World and Continental Helicopter Championships

Chapter 6 Additional Events

Event 6.1 FAI World Air Games

Rules and Regulations for Helicopters

Table of Contents

Chapter 1

General Rules and Regulations

1. Definition of classes and types of helicopters participating
2. Minimum and maximum of competitors and level of experience required
3. Method of selection
4. Documents required for athletes, aircrafts and equipment
5. Composition of panel of judges and jury
6. Competition tasks, scoring and elimination of athletes
7. Complaints and protests

Chapter 2

Event Rules

1. Parallel Slalom - rules, scoring and penalties
2. Parallel Fender Rigging - rules, scoring and penalties

Chapter 1

General Rules and Regulations

1. Types of helicopters and classes

There is no differentiation into classes. Helicopters of any type with sufficient characteristics to execute the World Air Games Events will be allowed to compete. A crew consists of 2 persons.

2. Minimum and maximum of competitors and level of experience

There should be a minimum of 8 crews and a maximum of 16 crews to compete for the title of ~~“World Air Games Helicopter Champion”~~. The crews should have been placed in the upper third at the last 2 Helicopter World Championships and/or 3 National Championships.

3. Method of selection

Each country haven taken part in any of the last 3 World Helicopter Championships or similarly FAI Category 2 Events has the right to submit 3 crews and 2 judges to the CIG Bureau for selection.

The nomination of crews must be approved by the respective NAC.

The selection process will be carried out during special CIG Bureau Meeting.

4. Documents required for athletes and helicopters, equipment

Pilots must be in the possession of a valid Pilots Licence complete with Medical Certificate and a FAI Sporting Licence.

For every competing helicopter must be produced to the LOC a valid ~~“Certificate of Airworthiness”~~ or equivalent document and a Certificate of Registration issued by an appropriate authority.

Each competing helicopter must comply with its own National Flight Regulations and must be equipped with a VHF radio and normal standard equipment.

5. Composition of panel of judges and jury

The International Board of Judges consists of 10 FAI – CIG International Judges – including a Chief Judge – and additional ~~Assistant assistant Judges-judges~~ appointed by the LOC.

The jury is represented by one person only and will be appointed by CIG Bureau.

6. Competition tasks, scoring and elimination of crews

Helicopter events will be organized as a qualifying contest.

All competitors will be required to perform the events Parallel Slalom and Parallel Fender Rigging at each stage of the competition.

Scoring is determined by subtracting penalty points from 300 as laid down in the infringement lists of each event.

The contest starts with a qualification ~~(preliminary)~~~~(preliminary heat)~~heat. All participating crews will be randomly combined into pairs for executing the both parallel events.

After the qualification heats the best 8 crews, having the highest sum of points ~~(both)~~both events added up) will be qualified for the further competition.

For the quarter finals these 8 crews will be combined into 4 pairs as follows:

The crew placed first with the crew placed ~~5th~~ 5th down to the crew placed 4th with the crew placed 8th.

The 4 crews having highest sum of points (added up both events) out of quarter finals are qualified for the semi-final.

The crews will be combined into pairs as follows: the crew placed first with the crew placed 4th and the crew placed 2nd with the 3rd.

The two crews having highest sum of points from semi-final heats will contest for the title of World Air Games Helicopter Champion in the final heats.

The Champion is determined by the highest number of points obtained in both events of the final.

7. Complaints and protests

Complaints or protests are only possible against an issue which ~~effects~~ affects the competitor himself and have no effect to the course of the competition.

Complaints or protests which effect results must be forwarded by the Head of National Delegation (~~Point~~ Point 3.1 General Rules FAI World Air Games) to the Chief Judge within 30 minutes after publication.

Chapter 2

World Air Games Events

~~Event 6.1.1~~ Event – 6.1.1 – Parallel- Parallel Slalom

1. This event is identical with Parallel Slalom event as described in Chapter 5 Event 5.4 with the exception of scoring.

2. SCORING - ~~EVENT NO~~ EVENT NO. 6.1.1 (PARALLEL SLALOM)

INFRINGEMENT	PENALTY POINTS
Departure before starting signal is given	20
Passing a gate in the wrong order or different direction	20
Failing a gate by missing or bucket over poles	20
Each tenth of a second in excess of 90 <u>of 90</u> seconds *	
0.1	
Placing the bucket outside the 30 cm target on table	20
Placing the bucket outside the 60 cm target on table	80
Losing the bucket during the course	300
Rope not deployed before the <u>before the</u> 5 metre circle around the <u>around the</u> table	
20	
Crew not staying seated or fastened (both <u>both</u> hands and legs not visible)	
80	
Rope shortened, has knots or handled below red flag (per <u>per</u> infringement <u>infringement</u>)	
80	

* Black flag if total time exceeds 4 minutes.

Event 6.1.2 – Parallel Fender Rigging

1. This event is identical with Parallel Fender Rigging event as described in Chapter 5 Event 5.3 with the exception of scoring

2. Scoring Event No. 2.2 (Parallel Fender Rigging)

Infringement	Penalty points
Departure before starting signal is given	20
For each tenth of a second flown over total times limits	0.1 *
Touching the ground with the fender between D- Line and containers:	
For each touch:	20
Each fender not dropped into the container or lost en route	80
Crew not staying seated or harnessed:	80
Rope shortened, or has knots, or handled below the ball	
(for <u>for</u> each infringement <u>infringement</u>)	
80	
Rope not deployed to full metres or has knots when flying over the	
D-Line or lifting off from containers (for <u>for</u> each infringement <u>infringement</u>)	
20	
Overfly of the exit gate – helicopter nose is not first part of helicopter to pass the marked gate or the helicopter does not pass the gate at all	

for each infringement:	20
Fender not passing the Gate “D”	20
Missing the Entrance-Gate by missing or fender over poles	
(for each infringement) (for each infringement)	
20 black flag if total time exceeds 3 minutes	

Event 6.2

CIG – ONLINE COMPETITION

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INTRODUCTION

In 2011 CIG approved the concept of an inter crew competition using the internet, to encourage helicopter crews to issue challenges across the world with each crew participating in their own country but on an agreed date.

HOW TO PARTICIPATE

A crew (pilot and single bucket operator) can issue a challenge by internet or direct email to another crew outside the challenger’s country.

If the challenge is accepted the crews must agree on a date for the challenge to take place.

The challenge must be observed and ratified by an independent expert on FAI CIG International Judge.

The full details plus photographic evidence will be sent by each crew to FAI-CIG-Official Judge and to the crew challenged.

The Judge having approved the results will ensure that they are published on the FAI CIG Webpage. He may request further evidence.

There is no limit in the number of challenges that a crew can make in the course of a calendar year.

AWARD :-

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At the end of the year FAI CIG will decide on the overall winner. An annual trophy will be presented.

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CIG Competition

*Fédération
Aéronautique
Internationale*

Helicopter Pen Challenge

Rules and Information

2010 Edition

Approved by the I FAI Rotorcraft Commission I (CIG)

In February 2010

*Maison du Sport International
Av. de Rhodanie 54
CH-1007 Lausanne
(Switzerland)
Tél. +41 (0)21 345 10 70
Fax +41 (0)21 345 10 77
E-mail: sec@fai.org
Web: www.fai.org*

FAI on-line helicopter competition

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Event 1 - Helicopter Pen

1.1.0 Event description

The event requires precise flying to manoeuvre a bucket, attached to a 5 metre rope through 3 gates and a “pen”. The helicopter will be configured with the pilot’s door on & closed, dual controls and crewman’s door removed.

Flying times:

- ☐ 120 seconds (2 minutes).

1.1.1 Preparation:

The helicopter will come to the preparation line and wait for the previous helicopter to finish.

At a signal from the judges, the helicopter will move and land at the departure line. The loader will hand over the rope with the attached bucket. The rope will be held by the crew member, sitting on a seat on the side opposite to the pilot, in a normal position and wearing the safety harness correctly. The crew must remain seated. The rope will be maintained on the floor of the cabin, either inside or outside the skids where fitted.

1.1.2 Start:

Upon an indication of ready from the pilot (or crewmember), the starter will signal the start by dropping a flag. The helicopter will take off from the departure line with the bucket resting on the ground, the crewmember holding the rope by the handle. The rope will remain held by the crew member who must have both hands visible. Manoeuvring of the rope is allowed provided the rope is not shortened by any part of the body below the red painted ball.

1.1.3 Composition of the course:

The course comprises of a departure gate, an entrance gate, a pen and an exit gate.

The course will be placed as per **Annex 1**; the direction of flight will be indicated in **Annex 1**.

To correctly pass the entrance gate, the top of the bucket must pass below the top of the poles. If an attempt of passing the gate fails, the bucket must go backwards

around the outside of the poles before another attempt is made. Multiple opportunities to pass a correctly will be allowed.

The course will be flown in the following order – departure gate to entrance gate to exit gate via the pen.

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1.1.4 Pen and Exit Gate

After passing the entrance gate, the bucket will be lowered into the pen and 4 tasks will be performed:

1. 360° turn of the aircraft to the left (minimum 15 seconds)
2. Lifting the bucket clear of the pen on completion of task 1
3. Lowering the bucket into the pen
4. 360° turn of the aircraft to the right (minimum 15 seconds).

Each turn must take a minimum of 15 seconds

For the purpose of timing, the timing will start at the beginning of the turn and it will be timed from when the top of the bucket is first lowered into the top of the pen.

To complete the course, the bucket must pass through the exit gate.

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1.1.5 Timing

The competition time starts with lowering of a flag by the starter at the departure line and the time stops when the bucket passes the exit gate.

1.1.6 Tie Break

If there is a tie for a place, the winning crew is determined by the shortest flight time with the lowest penalties.

1.1.7 Scoring

Score is determined by subtracting the Penalty Points from 300. The minimum score achievable is zero. Scores will be posted on the FAI CIG website.

1.1.8 Awards

Annually the winner of the event will be awarded a trophy.

1.1.9 Fees

25 CHF per scored entry per crew.

1.1.10 Competitor requirements.

Crews are to hold valid FAI sporting licences.

1.1.11 Challenge organisation & frequency.

All challenges have to be witnessed and scored by an International Judge or NAC CIG representative.

Organisers can hold an unlimited number of challenge events in a calendar year.

The number of scored attempts a crew can make at a challenge event in the same day is 3.

Measurements of competition area and equipment (see attached Annexes)

- 50 x 50 metres competition area. **See Annex 1.**
- One departure, gate internal width 3 metres.
- One entrance, gate internal width 1 metre.
- One pen, dimensions 1.75 metre x 1.75 metre x 1.15 metre high. **See Annex 2.**
- One exit gate, internal width 5 metres
- One 5 litre bucket full of water made from break proof material complete with handling aids. **See Annex 3.**

Penalties

Infringement	Penalty points
Departure before starting signal is given	20
Missing a gate	20
Each second in excess of 120 seconds	1
*Missed pen	100
<i>In the pen</i>	
Bucket or rope in contact with tape, per second	10
Grounding the bucket, per second	10
Lifting the top of the bucket above the top of the tape, per	5
Rope shortened, has knots or handled below red ball (per each infringement)	50
Turn completed in less than 15 seconds	15
Bottom of bucket not clear of pen between turns	30
Crew not staying seated or fastened (both hands and legs not visible)	50

**the pen will be deemed as missed if the bucket is grounded, lifted above the tape for more than 180 degrees of a turn.*

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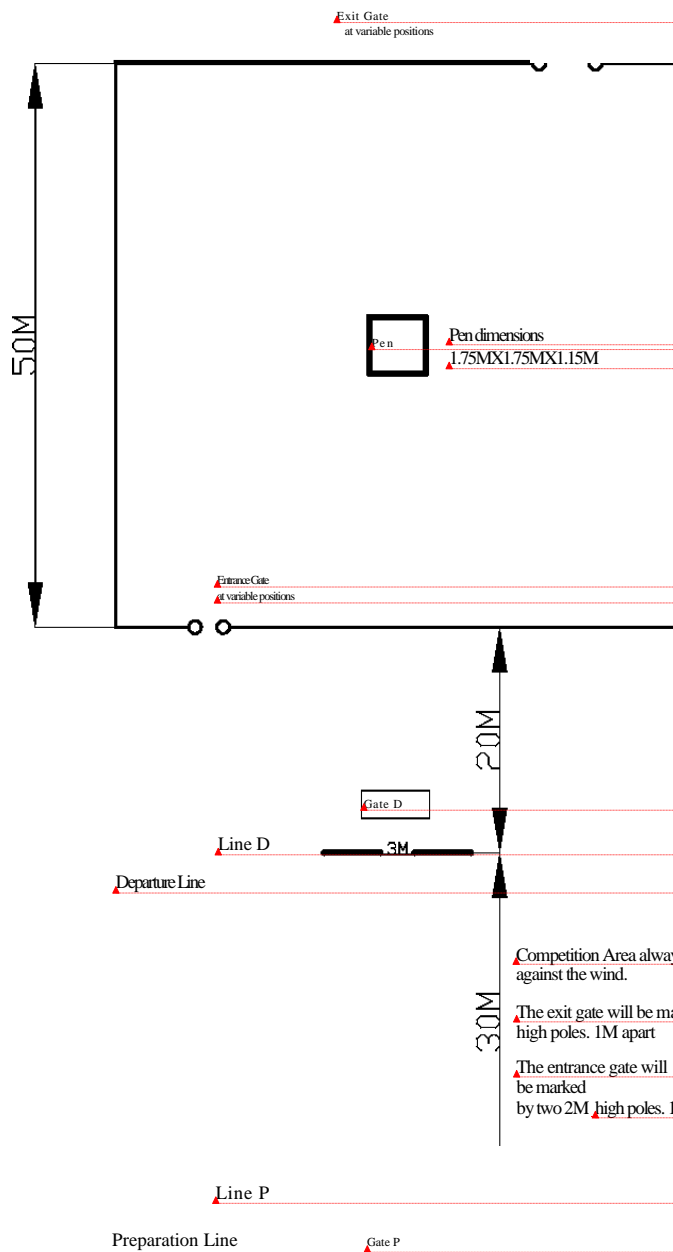
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Annex 1



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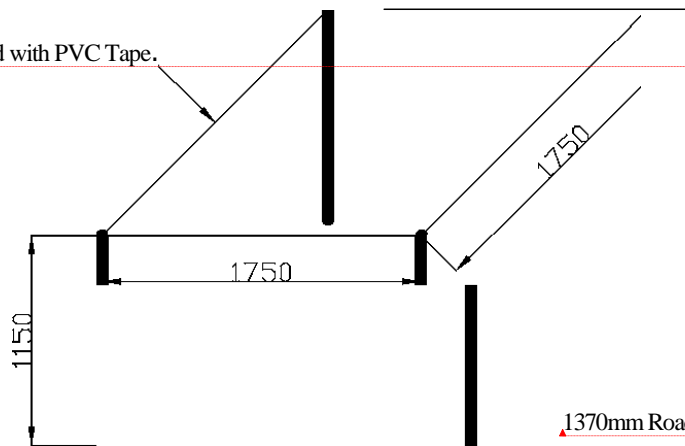
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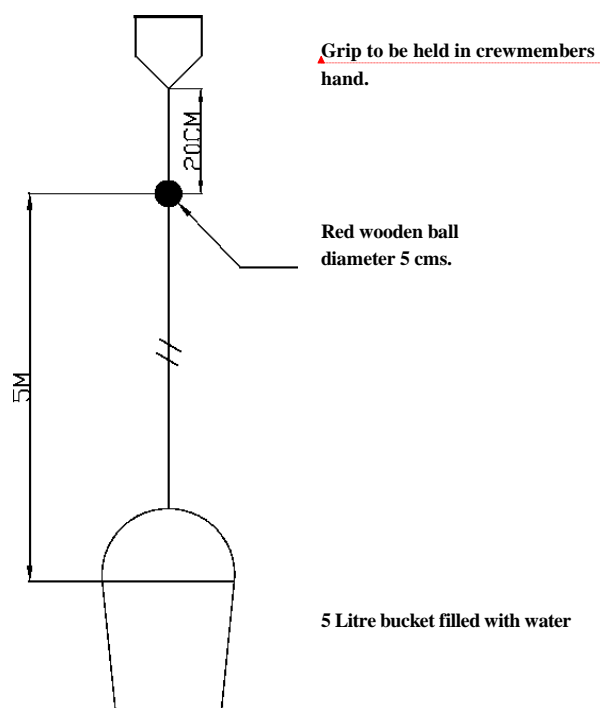
Annex 2

All Dimensions in mm.

Rail formed with PVC Tape.



1370mm Road Pin

Annex 3

Judge

PEN PAL TOTAL TIME ALLOWED 120 SECONDS

Running Order	AIRCRAFT REGN & TYPE	Departure before starting signal is given (X for penalty)	Failing to pass through Entrance Gate (X for penalty)	Failing to pass through Exit Gate (X for penalty)	TOTAL GATE PENALTIES	Bucket or rope in contact with tape, per second (Number of seconds)	Grounding the bucket, per second (Number of seconds)	Lifting the top of the bucket above the top of the tape, per second (Number of seconds)	Turn completed in less than 15 seconds (X for Penalty)	Bottom of bucket not clear of pen between runs (X for Penalty)	Missed Pen (X for)	TOTAL PEN PENALTIES	Crew not staying seated or fastened (both hands and legs not visible) (X for Penalty)	Rope shortened, has knots or handled below red ball (per each infringement) (X for penalty)	TOTAL TIME PENALTIES Each second over 120	TOTAL PENALTIES
		20 points	20 points	20 points	Total Points	10 per second	10 per second	5 per second	15 points	30 points	100 points	Total Points	50 points	50 points	1 per second	Total.
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																



FAI ROTORCRAFT COMMISSION (CIG)

HELICOPTER PEN CHALLENGE

CREW ENTRY FORM

1. Pilot Name and Title

FAI. Licence Number

Nationality

2. Crewmember Name and Title

FAI. Licence Number

Nationality

3. Name of National Aero Club

4. Contact email address

5. Location of event

6. Proposed date of event

Entrance fees: to be paid to FAI-CIG 25 CHF per crew to be paid in advance.

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World and Continental ~~Helicopter Championships~~ Helicopter Championships

Chapter 7 Trophies and Awards

7.0 General

All medals, diplomas and prizes shall be presented at the official ~~prize giving~~ prize giving. Diplomas and prizes for event-winners shall be presented not later than at the event on the following day.

7.1 Individuals Overall

The crew with the highest overall score will become "Overall World or Continental Champions".

The members of the crews placed first, second and third will be awarded gold, silver and bronze FAI medals. The crews placed ~~first-1st~~ to 10th will be awarded with FAI diplomas. Additional prizes should be awarded at the ~~Organizer's~~ Organisers discretion.

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7.2 Teams

The team with the highest overall score will be called "World or Continental Team Champions".

The team managers of the teams placed first, second and third will be awarded gold, silver and bronze FAI medals. Smaller FAI medals are to be awarded to all members of the teams. All members of the teams placed first, second and third will be awarded FAI Diplomas. Additional prizes can be awarded at the ~~Organizer's~~ Organisers discretion.

7.3 Event Winners

Each crew winning an ~~Event-event~~ will also be awarded an FAI Diploma and called "Navex Champions", "Precision Champions", "Fender Rigging Champions" or "Slalom Champions".

Additional prizes can be awarded at the ~~Organizer's~~ Organisers discretion to the crews placed first, second or third in each event.

7.4 Females

There will be an award for the all-female crew with the highest overall score and called "Overall World or Continental Ladies Champions".

The members of the all-female crews placed first, second and third will be awarded gold, silver and bronze FAI medals. The female crews placed ~~first-1st~~ to 5th will be awarded FAI diplomas.

Additional prizes can be awarded at the ~~Organizer's~~ Organisers discretion.

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7.5 Freestyle

There will be an award for the Pilot with the highest Freestyle score called "Freestyle" Freestyle Champion "Freestyle".

The pilots placed first, second and third will be awarded FAI diplomas and ~~Organizer's~~ Organisers prizes.

7.6 Novice Pilots

The pilots placed first, second and third in the junior category will be awarded FAI diplomas and additional prizes at the ~~Organizer's~~Organisers discretion.

ANNEX A

HELICOPTER TYPE AND COMPETITION SPEED

HELICOPTER TYPE	COMPETITION SPEED (KTS)(KTS)	COMPETITION SPEED (KPH)(KPH)	CRUISE SPEED
Robinson R22 – HP	64	118	80
Robinson R22 – Alpha	64	118	80
Robinson R22 – Beta	64	118	80
Robinson R22 – Mariner	56	104	70
Robinson R22 – Astro	77	143	96
Robinson R 44-Astro	80	148	100
Robinson R 44-Raven I	80	148	100
Robinson R 44-Raven II	90	166	117
Robinson R 66	90	166	125
Bell 47	56	104	70
Bell 205 (UN-1H)	80	148	100
Bell 206 I Jet Ranger	80	148	100
Bell 206 II Jet Ranger	80	148	100
Bell III Jet Ranger	80	148	100
Bell 206 Long Ranger	80	148	100
Bell 212	80	148	100
Bell 214	90	166	115
Hughes 300A	60	111	75
Hughes 300B	60	111	75
Hughes 300C	60	111	75
Schweizer 300	60	111	75
Schweizer 300CB	56	104	70
Schweizer 330	72	133	90
Hughes 500HS	80	148	100
Hughes 500C	80	148	100
Hughes 500D or MDHC 500D	90	166	120
Hughes 500 or MDHC 500E or F	90	166	120
Hughes 500 or MDHC 530N or F	90	166	120
Aerospatiale Gazelle	90	166	140
Aerospatiale Ecureuil or ASTAR AS350B	90	166	115
Aerospatiale Ecureuil or ASTAR AS350B2	90	166	120
Aerospatiale Dauphin (HH-65)	90	166	140
Mil Mi – 2	72 86	133 160	90 107
Enstrom F28A	56	104	70
Enstrom F28C or F	64	118	80
Enstrom F280C	64	118	80
Enstrom 280 FX	72	133	90
Alouette II	64	118	80
Alouette III	72	133	90
Eurocopter EC 120	90	166	122
BO 105	90	166	120
Cabri	64	118	80

Helicopter competition speed will be 80% of the maximum safe sustainable cruise speed in straight and level flight with two average weight persons and 1.5 hours fuel on board.
The maximum competition speed will be 90 kts (166 kph)

ANNEX B

Measuring Equipment

B-1. ~~GENERAL~~-GENERAL:

As stipulated in 12.6 and 12.7 of Chapter 2, all measuring equipment must be submitted to the FAI - CIG for approval prior to the Championship.

The judgments in the competition that may require the use of equipment are listed below. In some cases such as time-keeping, the use of equipment, in this case a clock or watch, is mandatory.

In other cases such as calculating speed, height or distance, the ~~organizer~~-Organiser may use technical equipment in addition to the judgment of the judges.

If equipment is being used for a particular measurement, it must be described in full to the FAI - CIG in accordance with Chapter 2 para 12.6, or, the ~~organizer~~-Organiser must state that no equipment will be used.

In this case measurement will be taken by the skill and judgment of the judges.

B-2. Navigation

Mandatory Equipment

Master Clock, Start Line Clock, Search Box Exit Clock, Gate A Clock.

The ~~Organizer~~-Organiser must demonstrate that the timepieces are of sufficient quality and ~~that they~~ can be synchronized to the Master Clock to an accuracy of 0.01 seconds.

GPS-based Data Loggers for measurement of the track, times and speed on the course.

Loggers of the same type and manufacture will be provided by the ~~Organizer~~-Organiser -

Optional Equipment

For measurement of height at targets in the dropping zone and at Line A and F.

For measurement of speed and 30 degree variation on final leg.

To avoid potential complaints and protests, the organiser should ensure that there is some clear indication of the last 2 km to the judges.

TP1 Clock, TP2 Clock, TP3 Clock

B-3. Events 2, 3 and 4

No special equipment required.

ANNEX C**Judge`s Qualification Declaration****FAI-CIG JUDGES INFORMATION**

Name ~~(in full)~~ (full).....

NAC.....

International Judge (since).....Assistant Judge (since).....

Year	National Competition or Category 2 Event	World Championship
	Status	Status

2008

2009

2010

2011

2012

2013

2014

Attendance at National Judges Training: ~~2009–2015 2010–2016 2011–2017 2012–2018~~
~~2013–2019 2014–2020~~

Identity and qualification of trainer:

I confirm that the above represents the active experience in judging of helicopter events run in accordance with the relevant FAI-CIG World and Continental Championship Rules

Signature of Judge:

Certified that the above is correct:

~~(Representative of National Aeroclub)~~ (Representative of NAC)