

## APPENDIX III

### SAFETY

The following is extracted from Appendix H (Recommendations for the supervision of the road and emergency services) to the FIA International Sporting Code as a guide for the benefit of rally organisers. The complete text may be viewed in Appendix H.

#### ARTICLE 5 OF APPENDIX H: RALLIES (1<sup>ST</sup> CATEGORY)

##### CONTENTS

- 5.1 GENERAL
- 5.2 SAFETY PLAN AND ADMINISTRATIVE OBLIGATIONS
- 5.3 DESCRIPTION OF THE ELEMENTS OF THE MEDICAL AND RESCUE SERVICE
- 5.4 SAFETY OF THE PUBLIC
- 5.5 SAFETY OF THE COMPETING CREWS
- 5.6 ACCIDENT REPORTING

##### 5.1 GENERAL

The following recommendations should be respected, but need not be included in the Supplementary Regulations of the rally.

Each organiser is permitted to introduce additional elements with a view to improving the safety of the public and the crews.

The Clerk of the Course shall be ultimately responsible for applying these recommendations.

The presence of FIA Safety and Medical Delegates is obligatory for rallies counting towards the FIA World Rally Championship.

FIA Safety and/or Medical Delegates may be appointed for any other FIA Championship; in that case, their duties and authority shall be as specified in the FIA World Rally Championship (hereinafter WRC) sporting regulations and Supplement 8.

##### 5.2 SAFETY PLAN AND ADMINISTRATIVE PROCEDURES

###### 5.2.1 A safety plan must be drawn up and include:

- The location of the Rally Headquarters (Rally Control);
- The names of the various people in charge:
  - Clerk of the Course,
  - Deputy Clerks of the Course,
  - Chief medical officer (FIA approval required for World Championship rallies in accordance with Supplement 2),
  - Chief Safety officer,
  - Safety officers in each special stage.
- The addresses and telephone numbers of the various safety services:
  - Police,
  - Hospitals,
  - Emergency medical services,
  - Fire-fighting services,
  - Breakdown services,
  - Red Cross (or equivalent).
- The full itinerary with detailed road sections.
- The safety plan for each special stage, which should list all key officials, emergency services for that stage, telephone numbers, etc., plus a detailed map of the special stage.
- The organisers and the Clerk of the Course should make provision for an alternative route for each special stage, to be used in the event of cancellation (see 5.4.2.6).
- For WRC rallies, see also the WRC regulations specifying deadlines for the submission to the FIA of the safety plan and medical questionnaire and arrangements with the designated hospitals.

###### 5.2.2 The safety plan specifically addresses issues in each of the following areas:

- safety of the public,

- safety of the competing crews,
  - safety of the officials of the rally.
- and includes:
- details of where the rescue services are stationed,
  - instructions for intervention,
  - evacuation routes,
  - the hospitals which have been contacted and which would be used in the event of an emergency.

**5.2.3 In the event of a mass or repeated accident exceeding the capabilities of the medical service on site, contact should be made beforehand with the person in charge of the emergency plan drawn up according to the legal provisions of the country concerned.**

The hospitals selected should be contacted in writing, no less than 15 days before the rally, requesting that the emergency services be placed on standby.

**5.2.4 Chief Safety Officer**

A Chief Safety Officer will be appointed in the regulations of the rally. He will belong to the organising committee and will take part in the devising of the safety plan.

During the rally he will be in permanent communication with rally control, the Chief Medical Officer and the start of each special stage (by telephone or radio).

He will be responsible for the implementation and enforcement of the safety plan.

**5.2.5 Special Stage Safety Officer**

Each special stage will have a safety officer who will assist the Chief Safety Officer.

The special stage safety officer ensures that the special stage is inspected and certified in conformity with the safety plan prior to the passage of the zero car.

**5.2.6 Officials and marshals**

Organisers should ensure that, in performing their duties, officials are not required to place themselves in danger.

It is the organiser's responsibility to ensure that officials are adequately trained in this regard.

The personnel should wear identifying tabards. The recommended colours are:

- Safety Marshals: Orange
- Safety Officer: Orange with white stripe and text
- Post Chief: Blue with white stripe and text
- Media: Green
- Stage Commander: Red with text
- Competitor Relations Officer: Red jacket or red tabard
- Medical: White
- Radio: Yellow with blue mark
- Scrutineer: Black

**5.3 DESCRIPTION OF THE ELEMENTS OF THE MEDICAL AND RESCUE SERVICES**

**5.3.1 General**

The medical and rescue services provided should comply with the prescriptions contained within this chapter. They must also fulfil the legal requirements in force in each country concerned. These prescriptions apply to all international rallies. For the WRC, the prescriptions indicated below are strictly mandatory and may on no account be of a conditional nature. These prescriptions do not apply to private testing.

On the occasion of any international rally, the FIA has the power to check the organisation of the medical services at any time.

Technical medical information and essential practical instructions are provided in a recapitulative table at the end of this Appendix.

**5.3.2 Personnel**

**At Rally Control**

**A Chief Medical Officer or his assistant:**

Both must be approved by the ASN and be placed under the authority of the Clerk of the Course. Their names must appear in the Supplementary Regulations of the rally.

The Chief Medical Officer is responsible for the recruitment, implementation, operation and running of the rescue services and evacuation. Consequently, all the medical and paramedical personnel, including those recruited directly or indirectly by the ASN, are concerned by his decisions.

Save in exceptional circumstances, during the running of a rally, the Chief Medical Officer remains at rally control in order to facilitate dialogue and collaboration with the Clerk of the Course in the event of an accident. He may be replaced temporarily by an assistant whose name must appear in the Supplementary Regulations of the rally concerned. In all cases, it should be possible to contact him. The organisers are obliged to provide him with all the material and administrative means necessary for the performance of his duties.

Before the rally :

The Chief Medical Officer is responsible for the medical part of the Safety Plan, or for the Medical Safety Plan, as are the Clerk of the Course and the Safety Officer.

He must go into all the special stages well ahead of the rally, with the Safety Officer and/or the Clerk of the Course, in a car similar to the medical intervention car to establish the right position for the start and intermediate points, and to make sure that all the medical and safety facilities will be correctly positioned in accordance with the regulations.

He must confirm the viability and quality of the ambulances, the medical helicopter and fire vehicles.

He must check meticulously that the equipment and supplies in the medical and rescue cars are in perfect working order.

He must check that none of the drugs are past their use-by date.

He is responsible for the capacity and the quality of the hospitals designated to cover the rally. He must therefore choose no more than one or two hospitals, if possible, which would be used for drivers and co-drivers. These hospitals may be granted FIA approval and be a reference point for future national, regional and FIA rallies.

During the rally:

Each evening he must examine all drivers and co-drivers who had an accident during the day, even if no medical intervention was necessary, to be sure that they can start the next day (as the Technical Delegate does for the cars to be able to run in Super Rally).

After the rally:

During the two weeks following the rally, the Chief Medical Officer must send the FIA, for the attention of the Medical Delegate and the Medical Commission, a report on all the medical interventions on drivers, officials and spectators. This report must explain the circumstances of the incident or accident, the timing of the interventions, the initial medical status, the treatment and the medical follow-up.

***Particular measures for the WRC:***

*The provisions listed above are obligatory.*

*In addition, the Chief Medical Officer must be approved by the FIA. The procedure and the conditions for qualification are stipulated in Supplement 2.*

*He is obliged to attend the biennial Chief Medical Officers' seminar. Except in cases of force majeure, any absence will result in the withdrawal of the FIA's approval.*

*Any doctors planning to apply for the position of Chief Medical Officer are strongly encouraged to attend the above-mentioned seminar.*

*The Chief Medical Officer must ensure that the medical and paramedical staff involved are trained in extrication.*

*He must have a good written and spoken command of the English language.*

*The appointment of an Assistant Chief Medical Officer is mandatory. He assists the Chief Medical Officer and is delegated for certain missions, or may even replace him. He, too, must have a good command of the English language.*

**For medical intervention vehicles and treatment/resuscitation units:**

- **doctors proficient in resuscitation** and experienced in the pre-hospital treatment of accident victims;
- **paramedics** whose proficiency in cardiovascular and respiratory resuscitation and the practice of intubation is proven by an official diploma awarded in the country in which they practise (they may replace the doctors at the intermediate points of the special stages, and only at those points, and on condition that any casualty is examined by a doctor proficient in resuscitation before being transferred to a hospital);
- **drivers**, who may be members of these teams;

- personnel trained in casualty extrication.

*Particular measures for the WRC:*

*At each medical point, at least one member of staff must have a good command of the English language.*

*An FIA Medical Delegate, whose role is defined in Supplement 8, is required in every case.*

### 5.3.3 Intervention vehicles

Their mission is to bring to the scene of the accident:

- on the one hand, the appropriate medical rescue;
- on the other hand, the necessary technical equipment.

**Two solutions are recommended:**

#### 1) Two separate vehicles, one for the “medical” team, one for the “technical” team.

The medical intervention vehicle transporting:

- a medical team in conformity with Article 5.3.2.
- medical equipment in conformity with Supplement 3.

The technical intervention vehicle transporting:

- a technical team trained in the procedures and techniques for extricating casualties with equipment in conformity with Supplement 3:
- two 4 kg fire extinguishers with trained operator,
- suitable communications equipment to maintain contact with Rally HQ,
- a warning siren,
- suitable identification,
- a kit of basic rescue equipment determined by the Chief Medical Officer in collaboration with the chief scrutineer, based on Supplements 7 (Extrication) and 3 (Disincarceration).

#### 2) A mixed vehicle, combining “technical” and “medical”.

This carries on board:

- all the equipment foreseen for technical intervention;
- the medical personnel (at least 3 people trained in extrication and the handling of technical equipment) and equipment foreseen for medical intervention.

A stretcher should be carried on board at least one of the vehicles mentioned above.

The vehicles should be suitable for the terrain and capable of moving rapidly in the special stage. The number of vehicles is determined according to the nature, length and difficulty of the special stage concerned.

For the intervention cars, a safety rollbar may be recommended according to the nature of the terrain, and all the members of the team are also advised to wear a helmet.

In all cases, the resuscitation doctor stationed at the start of the special stage (or, at an intermediate point, the paramedic skilled in resuscitation) should be the first to arrive at the scene of the accident.

### 5.3.4 Ambulance equipped for resuscitation

Ambulance equipped for treating vital distress, whether neurological, respiratory or circulatory. The crew comprises a driver, a doctor proficient in resuscitation and/or a paramedic who may be the driver.

***Particular measures for the WRC (recommended in other cases):***

*Its equipment must be in conformity with Supplement 4, Article 2, Part B.*

### 5.3.5 Treatment/Resuscitation unit

***Particular measures for the WRC (recommended in other cases):***

*A resuscitation unit in the form of a temporary or permanent construction, designed for use in the service park and equipped in accordance with Supplement 4; two beds are necessary and sufficient. The unit must be capable of rendering immediate care to a critically ill or injured patient. It must also be able to render care for general medical problems.*

*A doctor proficient in resuscitation and experienced in the pre-hospital treatment of accident victims is assigned to each unit.*

**5.3.6 Evacuation ambulance**

An ambulance, complying with the regulations of the country concerned, equipped for transporting casualties, with or without a doctor on board. For transporting a casualty requiring resuscitation, the presence of a doctor proficient in that discipline would be necessary.

**5.3.7 Medically equipped helicopter**

When provided for, it should meet the requirements specified by the aviation authorities of the country concerned and be equipped with a fixed stretcher.

**Particular measures for the WRC:**

*It is mandatory for all rounds of the WRC.*

For the medical equipment, see Supplement 5.

In all cases, the doctor taking part in the evacuation should be proficient in resuscitation. He may be assisted by a proficient paramedic. Where applicable, the helicopter should be equipped for missions in rugged terrain.

It should be reserved exclusively for the rally throughout the duration of the rally.

Organisers' attention is drawn to the FIA guidelines: "The organisation of helicopters for flight safety" and Article 5.5.3 d) below.

**5.3.8 Means of communication**

The Chief Medical Officer must be able to communicate with all the members of his team, either through the general radio network or through a dedicated network radio channel.

**5.4 SAFETY OF THE PUBLIC**

A major priority of the safety plan is to ensure the safety of the general public including spectators.

With the possible exception of 5.4.1, the following non-exhaustive measures should be applied for all international rallies of the 1<sup>st</sup> category.

**5.4.1 Educational film (recommended for all rallies)**

- 30-second duration;
- with commentary by a leading driver or drivers, in the language(s) applicable to the country of the rally;
- should not show accidents;
- should be broadcast several times.

**5.4.2 Control of Spectators**

- a) Measures should be taken as described in Article 5.4.5 to warn spectators and, where necessary, ensure that any who are in dangerous places are removed from those areas.
- b) Any dangerous areas should be identified in the safety plan. The organisers, with the assistance of the public order authorities where necessary, should identify and delimit danger zones in conformity with the safety plan, well before the arrival of the public.
- c) The Clerk of the Course should take into consideration the recommendations of the Chief Safety Officer, as well as the crews of the zero cars (and of the FIA Safety and Medical Delegates if present), in order to ensure that a special stage is cancelled if dangerous conditions exist.
- d) When large numbers of spectators are expected for a special stage or a super special stage, they should be protected by special safety equipment such as tyre walls, straw-bale walls, etc.
- e) The public should be prevented from moving along the route of the special stage whilst the stage is open for competition (after the zero car and before the sweeper car).
- f) Safety instructions should be distributed to the public along the special stage and also at all access points.
- g) Adequate numbers of marshals or public order authorities (police, military, etc.) should be present to ensure public safety during the special stage.
- h) Marshals should wear a clearly identifiable jacket as recommended in Article 5.2.6.
- i) Special stages should be situated and scheduled to allow the safe movement of spectators between them.

**5.4.3 Refuelling and Servicing**

Where refuelling or servicing will take place, the organisers should ensure that adequate precautions are taken to keep the public at a suitable distance from potentially dangerous activities.

**5.4.4 Zero Cars and Sweeper Cars**

- a) The organisers' zero cars should have a panel 36 cm x 50 cm on the bonnet and the two front doors, bearing the word SAFETY (or SECURITE) with a number 000, 00 or 0.
- b) Each zero car should be equipped with a warning roof light and a siren.
- c) Zero cars should not be driven by any FIA priority driver (1<sup>st</sup> / 2<sup>nd</sup> or A/B), or by a driver who has retired from the rally.

- d) The drivers and co-drivers of the zero cars must have considerable rally experience, enabling them to drive in complete safety at moderate speeds, and should be able to give the Clerk of the Course full information and comments concerning the conditions along the route. Zero cars should also check time clocks and the marshals' familiarity with time card procedures.
- e) A course car ("Sweeper Car") should pass through each special stage after the last competitor. These cars should carry a panel a panel 36 cm x 50 cm on the bonnet and the two front doors, showing a chequered flag.

#### 5.4.5 Information

Information addressed mainly to the public will be issued by various means:

- written, spoken and televised media,
- posters,
- distribution of leaflets,
- passage of a vehicle (course information car), equipped with a loudspeaker, along the route to inform the spectators (recommended 45 minutes to 1 hour before the start of the first car ).The car may be replaced by a helicopter equipped with loudspeakers. This operation may be repeated several times if necessary.

#### 5.4.6 Medical services

Medical services for the public are necessary when there are enclosures managed by the organiser. Even if the medical service intended for the public is organised by a different body, it remains under the supervision of the Chief Medical Officer.

### 5.5 SAFETY OF THE COMPETING CREWS

#### 5.5.1 Deployment of the safety services

- a) At the start of each special stage (including shakedown where applicable):
  - one or more medical intervention vehicles should, at each post, be stationed close to the technical intervention (disincarceration, fire-fighting, etc.) vehicles;
  - one ambulance equipped for resuscitation,
  - possibly an evacuation ambulance,

***Particular measures for the WRC:***

*The above measures are obligatory.*

- one doctor proficient in resuscitation, experienced in the pre-hospital treatment of accident victims and trained in extrication,
- one or even two paramedic(s) trained in extrication,
- two 4 kg fire extinguishers with trained operator,
- suitable communications equipment to maintain contact with HQ.

These vehicles should be stationed after the start point, in sight of and at a maximum distance of 150 metres from it. The start point itself should be modified if this proves necessary to allow the correct positioning of these vehicles.

- b) At the intermediate points on the route (see below):
  - one or more medical intervention vehicles,
  - one evacuation ambulance,
  - one doctor proficient in resuscitation and trained in extrication, or possibly one paramedic proficient in resuscitation and trained in extrication,
  - suitable communications equipment to maintain contact with HQ.

The number of intermediate points is determined by the nature, length and difficulty of the special stage concerned. They are necessary in any case if the length of the stage is 15 km or more, and the distance between two medical points should never exceed that limit. They should always be associated with a radio point.

The number and positioning of the intermediate points should be assessed on the basis of the recommended time taken to drive from the stage start to the first point, between any following consecutive points, and from the last point to the finish, which should not be more than 10 minutes in the intervention vehicles used for the rally.

Furthermore, if the nature of the terrain, the weather conditions or particular circumstances so require, this distance may be amended on the joint proposal of the Chief Medical Officer and the Chief Safety Officer (FIA Medical Delegate and FIA Safety Delegate in the case of FIA World Championship rallies) when approving the safety plan.

Both at the starts and at the intermediate points, the intervention vehicles should have direct access onto the route of the special stage and must be positioned in a secure zone.

- c) At the stop point of each special stage:
  - two (minimum) 4 kg fire extinguishers with operator(s).

**Particular measures for the WRC:**

*A fire fighting vehicle will be situated at the end of the special stage when the stage is longer than 35 km.*

- d) In the service park (obligatory for WRC rallies) or a central location less than 15 km by road from the special stages concerned:
- one breakdown vehicle.
  - suitable communications equipment to maintain contact with HQ.
  - a treatment/resuscitation unit in conformity with Article 5.3.5;
  - an evacuation ambulance.

No special stage of a rally may start, or resume after an interruption, unless the initial medical service is present. Replacements should be provided for.

**5.5.2 Dispatching of the rescue service**

**5.5.2.1** All rescue operations requiring the dispatching of a medical vehicle are initiated by the Clerk of the Course in consultation with the Chief Medical Officer and with information to the stage director. Any evacuation by land or air to the selected hospitals shall be carried out using the routes determined in advance (see Articles 5.2.2 and 5.5.3 a).

**5.5.2.2** At the scene of an accident, the organisation and directing of the medical intervention are carried out only by the doctor from the intervention vehicle concerned (possibly the qualified paramedic in the case of a vehicle from an intermediate point). The medical personnel must be familiar with and trained in the correct use of equipment stored on board their medical intervention vehicle, as well as in the extrication of casualties.

**Particular measures for the WRC:**

*The above provisions pertaining to the medical personnel are obligatory.*

**5.5.3 Evacuation**

- a) An evacuation route should be planned for each special stage and clearly shown in the safety plan (by map or diagram).
- b) The emergency services of all hospitals near the route should be on standby (see Article 5.2).
- c) Whether the evacuation is carried out by road or air, any serious casualty whose condition requires intensive care should be accompanied to the hospital by a doctor proficient in resuscitation.
- d) If evacuation by helicopter is foreseen, the following parameters should be respected:
- when weather conditions prevent the use of a helicopter, on the joint decision of the Clerk of the Course and the Chief Safety Officer, a special stage may be interrupted or cancelled if the transfer time by ambulance to the selected hospital is greater than the time deemed appropriate after consultation with the Chief Medical Officer;
  - the presence of a helicopter does not remove the obligation to plan land evacuation with, for a casualty needing intensive care during transport, the presence of a doctor proficient in resuscitation, possibly assisted by a proficient paramedic;
  - the evacuation time by helicopter or by ambulance should not exceed around 60 minutes.

See also Article 5.3.7.

**Particular measures for the WRC:**

*All the measures mentioned in Article 5.5.3 are mandatory.*

**5.5.4 Supervision of the road and signalling****5.5.4.1 Marking of Special Stages**

Roads and access ways leading to stages must be closed to traffic. This should be done in the following manner:

- a) Major or through roads, or any road along which traffic may be expected, to be blocked and manned by a marshal, police or other authority.
- b) Short no-through roads (e.g. to farms, etc.) to be blocked or taped off, with a notice affixed to the barrier or tape advising of the running of the rally and the danger of entry.

It shall be the responsibility of the zero cars to check that the appropriate closure method is in place and to immediately advise the rally HQ (rally control) of any omissions, for rectification prior to the commencement of the special stage.

**5.5.4.2** Marshal posts will be positioned along the course so as to:

- keep the spectators out of prohibited areas by means of boards, barrier or ropes, whistles and loudspeakers;
- as far as possible, warn crews of any obstructions on the route of the special stage.

**5.5.4.3** Should the use of red flags be required, the following procedure is to be adopted:

- a) A red flag must be available at each stage radio point (situated at intervals of approximately 5 km).

- b) The red flag will be displayed to crews only on the instruction of the Clerk of the Course and only at the radio points.  
The flags may only be displayed by a marshal wearing a distinctive jacket as recommended in Article 5.2.6 above, and on which the radio point symbol is marked. The time of deployment of the flag will be recorded and notified to the stewards by the Clerk of the Course.
- c) During reconnaissance, a sign bearing the symbol specified in point 5.5.4.4 below must be displayed at the location of each radio point. This sign may be smaller but must be clearly visible to crews performing reconnaissance in order that the location may be noted in their pace notes.
- d) On passing a displayed red flag, the driver must immediately reduce speed, maintain this reduced speed until the end of the special stage, and follow the instructions of any marshals or safety car drivers he/she encounters. Flags will be displayed at all radio points preceding the incident. Failure to comply with this rule will entail a penalty at the discretion of the stewards.
- e) No flag other than the red flag may be deployed in a special stage.
- f) Different signalling systems (e.g. flashing lights) may be used in super special stages. Full details must be included in the Supplementary Regulations.

**5.5.4.4** A radio network (set up approximately every 5 km), unique to each special stage, should be established to allow the vehicles to be tracked and the running of the rally to be supervised.  
Each radio point shall be identified in the Road Book and by a sign at least 70 cm in diameter, bearing the radio point symbol, a black spark on a blue background.

Any medical vehicle within a stage shall be located at a radio point. An additional sign (red or green cross on a blue background) should be located beneath the radio point sign at this point.

In addition there should be warning signs 100 m to 200 m prior to the SOS radio and medical points, with the same designs as above but on a yellow background.

**5.5.4.5** The tracking of vehicles on the special stage must be carried out either at rally HQ (rally control) or by the special stage safety officer. Some form of tracking chart should be used, either on the special stage by the special stage safety officer or at rally HQ. Each organiser must establish, and show in the safety plan, this procedure for tracking vehicles and must also list the procedures to be followed in the event of a missing competitor.

**5.5.4.6** In the case of incidents concerning spectator safety and control, the marshals must cooperate with the public services as laid down in the overall emergency plan, by reporting to rally HQ any incidents or accidents and allowing the security service to make use of the means of communication at the post.

### **5.5.5 SOS / OK Signs - Competitor safety**

- a) Each competing car must carry a red reflective triangle which, in the event of the car stopping in a special stage, must be placed in a conspicuous position by a member of the crew at least 50 metres before the car's position, in order to warn following drivers. Any crew failing to comply may be subject to a penalty at the discretion of the stewards.  
This triangle must be set in place even if the stopped car is off the road.
- b) The Road Books shall contain a page setting out the accident procedure, which should include instructions in case of an accident involving a member of the public.
- c) The procedure, recommended, for the display of "SOS" or "OK" signs by competitors having had an accident is given in the FIA WRC and Regional Championship regulations.
- d) Any crew retiring from a rally must report such retirement to the organisers as soon as possible, save in a case of force majeure. Any crew failing to comply may be subject to a penalty at the stewards' discretion.

## **5.6 ACCIDENT REPORTING**

### **5.6.1 Accident involving a member of the public**

If a driver taking part in a rally is involved in an accident in which a member of the public sustains physical injury, the driver concerned must report this as specified in the Road Book.

The laws of the country in which the rally is conducted must also be complied with in relation to procedures at accidents.

### **5.6.2 Accident investigations**

Any accident involving a fatality or serious injury must be reported to the National Sporting Authority, which is required to inform the FIA accordingly.