



**FIA Medical Regional Training Provider (MRTP)**  
**INTERNATIONAL IN-HOUSE INSTRUCTION COURSES AND TRAININGS**

## EDUCATION AND ADVANCED TRAINING FOR MEDICS

The FIA is making major efforts to ensure the sustainability of motor racing, with the DMSB Academy playing a vital role in this endeavour. As a centre for education and skill-development, the German Motor Racing Association, DMSB, promotes the highest levels of medical services both nationally and internationally. "As official FIA Medical Regional Training Provider, MRTP, we are looking forward to helping other organisations working on jointly improving the medical standards in motor racing," says DMSB President Hans-Joachim Stuck.

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Classic instructor-led classroom based training is of course a key component. However, here, the exchanging of experiences and group discussions is an integral part of the course content. When it comes to the training of the medical topics, the knowledge of the medical basics is presumed and the course focusses on motor-racing injuries and the special situations emergency units can be confronted with, on site at the racetrack.



### **Realistic accident scenarios**

In addition to the obligatory theoretical instructions, every topic also comprises a practical component. Furthermore, the scenario trainings do not only feature medical aspects but also the training of the interaction with the colleagues of other areas. After all, usually all the links of the rescue chain are involved in the case of bad motor-sport accidents. In the respective modules, the participants intensely learn how the operation with the race running is managed and guided by the race control.



**DMSB IS OFFICIAL  
FIA MEDICAL REGIONAL TRAINING  
PROVIDER.**



**REGIONAL  
TRAINING PROVIDER**  
MEDICAL

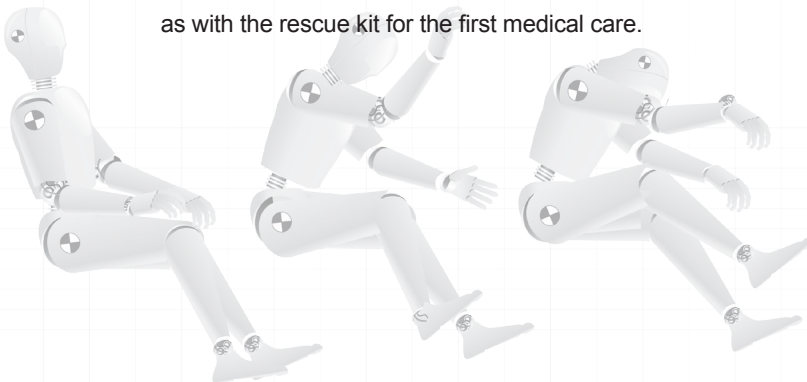
## MODULE: MEDICAL CAR

The Medical Car represents an integral component of the medical services. It is staffed with an experienced emergency medic and a paramedic who also acts as driver. This ensures an even more effective first care right at the accident site. In the theory block, the staff members that usually are working in the rescue service are – inter alia – once again explained the course of the action as well as the responsibilities and hierarchies in a motor-racing event. While blocking the road isn't a problem in the case of an accident on public roads, the medical emergency unit also is responsible for the course of the entire event, during a race. Therefore, the communication within the Medical-Car team, with the colleagues at the accident site – and the information exchange with the race control – will be particularly focused on.

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#### **Content of the 'Medical Car' module**

- Driving behind the field – after the start
- Driving to the accident site and positioning of the medical car
- Safeguarding the accident site
- Scenario management at the accident site
- Interaction with and support of the extrication team
- Communication via radio between Medical Car and race control
- Demonstration and practical dealing with the extrication and fire-fighter equipment as well as with the rescue kit for the first medical care.





## MODULE: EXTRICATION

As salvaging injured drivers out of their racing cars usually differs a lot from rescuing drivers injured in production cars, due to the racing cars' special design characteristics, these tasks usually are executed by extrication teams. The crew of an extrication vehicle comprises five experienced paramedics and a doctor. In this module, they are trained specially for the area stabilisation of possibly spine-injured patients. In the practical part, different situations will be re-enacted – both with single-seaters and tin-top racers. An instructor will provide the participants with valuable tips and support regarding the correct approach. Special attention will be turned to the vehicles with electric power and the necessary precautions. Following the practical training, the teams can pass a test and they can be awarded the FIA certificate for the approval for any possible FIA event.

### Content 'Extrication' module

- Extrication philosophy
- Medical novelties and innovations
- Stabilisation systems for the spine
- Special design characteristics of the vehicles (such as roof hatches, side windows, seat systems)
- Differences between touring cars and single-seaters
- Interaction with the Medical Car
- Handing over patients to other medical services
- Protective gear and handling with Energy Recovery Systems (ERS)
- FIA certification for the approval for any kind of FIA events



## **MODULE: RACE RESSOURCE MANAGEMENT (RRM)**

Where people work, mistakes can happen: This knowledge is as old as mankind itself. Yet, there are areas in which each mistake is one too much. Motorsport is one of those as the impact can be significant. Race Resource Management (RRM) is a way to better manage the risk factor that a human being represents. The methods and techniques conveyed in the DMSB Academy seminars are designed to help in avoiding incidents and accidents. At the same time, they enable officials and teams to act more efficiently and have thus leading to increased safety and efficiency in the world of motorsport.

### **Seminars of the DMSB Academy**

The one- to two-day seminars organised by the DMSB Academy are tailored to the corresponding target group and/or the specific requirements of the organisations requesting the seminar. Experienced RRM trainers (for example from the fields of military jet aviation or medicine) communicate the content, with the support of audio and video sequences as well as of case studies. Own experiences are reviewed, sources of errors are identified, backgrounds are revealed and possible solutions are developed in chaired group discussions. It is moreover possible to concentrate onto selected topics of the RRM, once the basic knowledge has been provided.

### **Content 'RRM' module**

- Error and safety culture
- Leadership behaviour
- Risk management
- Human misbehaviour
- Situational awareness
- Teamwork
- Decision-making processes
- Communication
- Stress and fatigue
- Automation and discipline

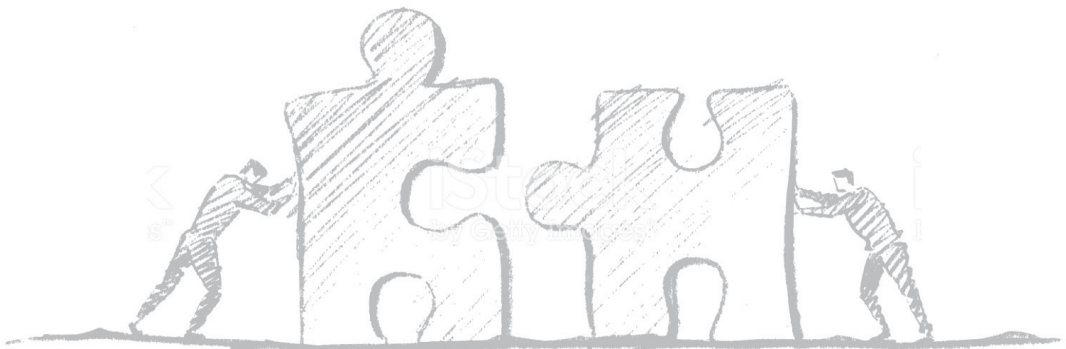
### **Race Resource Management: Why?**

In high risk areas – such as in aviation, sea navigation, (nuclear) power plants, but also for security and emergency forces – Crew Resource Management (CRM) has been implemented since long. RRM transfers the findings made and the techniques applied there into the practice of motorsport. It leads to an improvement in the management of errors, in the communication and in the leadership behaviour.

Studies in aviation have shown that, after the introduction of CRM, the accident rate went down dramatically (by up to 83 percent) and efficiency was at the same time significantly increased (by up to 20 percent). The vast majority of the participants experience the training in a very positive way: More than nine out of ten professional pilots would recommend CRM and noted that their efficiency took a positive turn due to CRM.

### **RRM in Motorsport**

Since long, the training of human factors has also become practice in motorsport: For example in form of annual mandatory seminars as a condition for the renewal of licences. Race Resource Management, however, concentrates specifically onto the psychological, cognitive and social factors, rather than onto the purely technical questions. In high risk areas, finally about three quarters of all accidents involve human errors, in daily traffic situations, this figure comes even up to 80 percent. RRM takes account of these circumstances and provides more efficiency and more safety – both in personal behaviour and in teamwork.



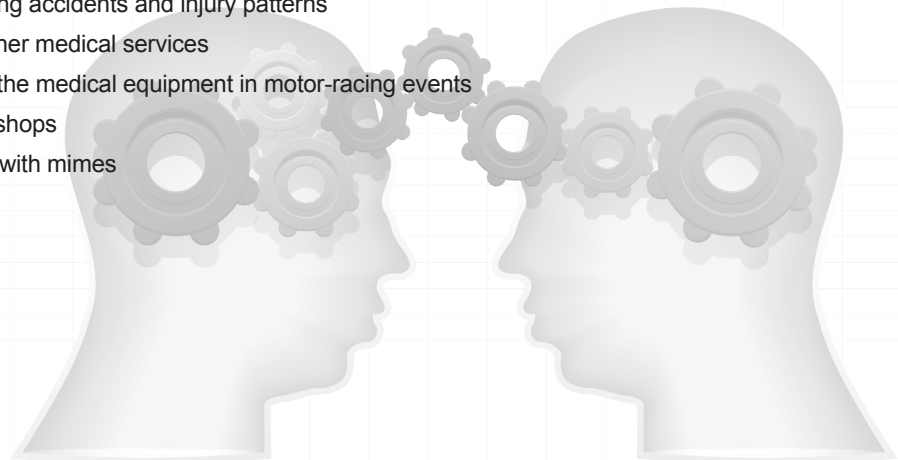
## **MODULE: RACE TRACK TRAUMA LIFE SUPPORT (RTTLS)**

RTTLS represents a concept for the structured and priority-orientated medical care of seriously injured patients within the framework of motor-racing events. In the theory block, the participants deal with the medical care for racing drivers who had an accident – regarding course of the necessary activities, dangers and particularities when it comes to rescuing a patient at the racetrack. Afterwards, in the practical part, the knowledge of typical motor-racing injuries suffered by racing drivers in accidents is deepened. To do so, the course of instruction features the medical care for drivers who suffered the most different injuries, in accidents. The training itself is executed in case studies, with mimes wearing professional make-up. The participants do not only practice together with the instructors but also complete workshops in smaller groups – focusing on topics such as bleeding, airway management and thorax-drainage.

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### **Content 'RTTLS' module**

- Particularities of rescuing patients in motor racing
- Course of activities, responsibilities and hierarchies in a motor-racing event
- Tasks of the different services on site
- Incident management and control via the race control
- Typical motor-racing accidents and injury patterns
- Interaction with other medical services
- Demonstration of the medical equipment in motor-racing events
- Small-group workshops
- Scenario practice with mimes



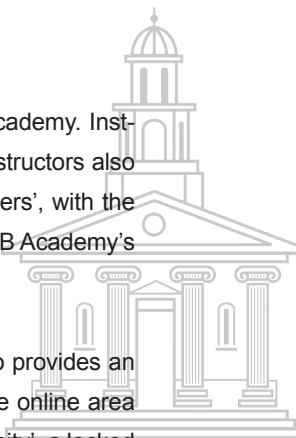


## **DMSB ACADEMY – THE ‘MOTOR-SPORT UNIVERSITY’**

All the education and know-how services provided by DMSB are centralised in the DMSB Academy. Instruction courses such as the education of stewards, stewards of the track-safety squad and instructors also are part of the academy’s education range. Consequently, it’s a true ‘university for motor racers’, with the education courses featuring a consistently high level. At the end of the day, it’s one of the DMSB Academy’s tasks to ensure and standardise high quality standards regarding its education.

But not only the education courses are permanently enhanced. At the same time, DMSB also provides an E-learning platform for all the stewards. The ‘DMSB Campus’ of the E-learning platform is the online area that supports the education and the skill enhancement. In addition, there is the ‘DMSB community’, a locked social network for licensed DMSB stewards. There, they are offered the opportunity to network and communicate with other stewards.

An E-learning platform offers the opportunity to contact the participants even weeks before the respective seminar. Furthermore, it is possible to publish footage online – showing for instance race simulations – at the DMSB-Campus in the World Wide Web. So, the seminar participants already can view, analyse and assess this footage in written form at home. While the results will be discussed later, during the seminar. DMSB Academy also adapts measures supposed to provide the instructors with better educational methods. So, ‘train the trainers’ modules once again improve the knowledge transfer.



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