

# Technical skills

## Communication

The RallySafe system is designed to work anywhere in the world, using revolutionary satellite communication systems and high performance. GPRS allows it to work in any terrain without secondary ground equipment. The RallySafe unit switches between GPRS and SBD satellite networks depending on available coverage. GPRS is used when the unit has GPRS coverage, and when coverage is not available, the system falls back to SBD satellite communications.

Vehicle-to-vehicle communication enables the immediate transmission of safety alerts between vehicles. This significantly reduces the likelihood of a secondary collision and increases visibility when approaching an accident scene.

## Reporting

RallySafe reports in many different situations, with a focus on competition and transport sections as well as in the GPRS area. The device reports every second and every 2 km under SBD satellite communication. Tracking messages contain information such as speed, location, survey and more.

The RallySafe unit reports when a vehicle stops on a WP, this is displayed as a danger. From here, a participant can be upgraded to an OK or an SOS, which is passed on to rally management and arriving participants.

In the event of an SOS, an alarm sounds in the rally control. Participants have the option to label the SOS as a fire or medical emergency. This will help reduce confusion surrounding the incident and help rally management inform the relevant emergency services. Along with the incident type report, we receive information such as impact on G-forces, vehicle orientation, engine status (active, inactive), and whether the device is powered by an internal battery or the vehicle battery.

Other reports include classification or transport speed, overtaking maneuvers, split times, SS times and slow moving vehicles.

## Logging

In addition to reporting to the rally management, the RallySafe unit creates internal protocols for each transport and WP. These logs contain second-to-second data, such as: B. Time and date, location, speed, bearing, X, Z, Y force, communication protocols and more. These logs can be used for crashes, criminal or forensic investigations.

RallySafe also has many tools to play back multiple logs at once or compare a vehicle's performance. Each protocol can be retrieved when the vehicle is within GPRS range.

### **Race control interface**

The Race Control Interface also offers the best in the RallySafe system with a clear layout of Stage Progress views, vehicle status, current movement, automatic hazard and SOS alerts, special stage times and more. The Race Control interface makes managing a rally easy with many visual aids to aid rally management. The interface is a web-based application. This means it can be run from any computer with an internet connection with as many users as needed.

### **Preliminary WP time / split time**

In addition to tracking and safety reports, RallySafe offers preliminary SS times and split times recorded using GPS data. These times are then immediately displayed as provisional times for all public applications that a viewer or participant can view.

### **Mounting kit / mounting kit**

All participants in the Lausitz Rally should preferably install the mounting kit permanently. The kits must be purchased by the participants themselves by email to [contact@rallysafe.nl](mailto:contact@rallysafe.nl).

Preferably, the organization communicates instructions about this process to participants. RallySafe offers participants the opportunity to during the event for 30 euros to rent a suitable kit if no installation kit was purchased.

Competitors must install the RallySafe kit before the event or before the technical test.

The (fixed) mounting set consists of:

- the permanent roof antenna (screwed on, rental sets have a sticker)
- internal antenna
- 12 volt cable
- Roll cage mount or flat mount
- Connection

RallySafe staff do not install the kits in the vehicles, but are available to provide assistance.

### **The system**

The system will be issued to participants by RallySafe staff during document collection after they have signed the issue form provided by RallySafe Netherlands. During the technical acceptance, the staff checks the assembly of the assembly kit and carries out the final acceptance. The system must be returned to the service point at the end of the event. In the event of an early departure, the tracking system must be handed in to the company "rallysafe" at the headquarters (please report to the security service at the entrance to the HQ). If participants are present with rented equipment sets, they must remove and return them themselves or by a service technician before returning home.