MAREC

MARITIME ACCELEROMETER RECORDER

MAREC System

MAREC is an accelerometer recorder for measuring impacts on high-speed boats and their staff. The system collects raw data in real time during the boat trip. Data will be stored as binary files on a normal USB-stick to be analyzed in detail at shore. The portability and simplicity of the design together with comprehensive data collection make this system a one of a kind on the market.

Then, why do we do this?

Rough conditions, high seas and heavy waves expose high-speed boats to significant impacts. These impacts might in turn cause severe injuries to the human body and result in material fatigue of the boat itself. In order to decrease long-term damage and create a healthier, more comfortable driving experience for those forced to take a ride on the sea, we have developed MAREC. MAREC provides data either to be used on a real time display onboard or collected on a USB stick for later analysis. Thus giving people a tool to keep an eye on how harsh the environment is.

MAREC X features

- Personal safety; monitors the impacts that pilot and crew are exposed to.
- May be used to monitor anything that vibrates, e.g. propeller shafts and gear boxes.
- 10 measurement channels.
- Small physical size and lightweight.
- Rugged and reliable in operation.
- Low power consumption.
- Easy to use.
- Excellent data resolution.
- Can provide data for research purpose.
- Cost effective.
- Modular design. Can be used as a 10 ch measurement node in a larger system due to built in fieldbus of CAN type.

MAREC X different applications (examples)

Analysing vibrations and shocks on pilot, crew and hull.

Possible to add real time display for driver feedback

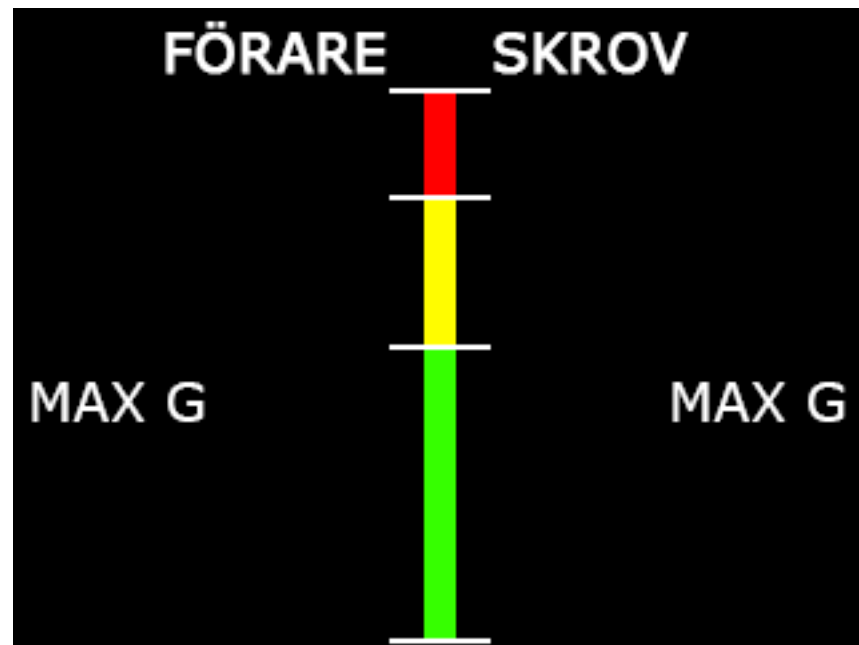Possible to expand to a larger data logger system

Not only accelerometers but other transducers
Can be used like temp, pressure, rpm etc.

MAREC X Data

RESOLUTION: 1 cm/s^2 1/1000 g roughly.
STORAGE CAPACITY: up to 256 Gb
FILE FORMAT: Normal PC binary file
POWER CONSUMPTION: Approx 6W (12V/0.5A)
NUMBER OF CHANNELS: Max 10
SAMPLING RATE: 600 Hz. Other rates on demand

New 10-channel MAREC X