



We protect and save human lives
all over the world



VIKING LIFE-SAVING EQUIPMENT

Accumulated Stress on High-Speed Boat Operators

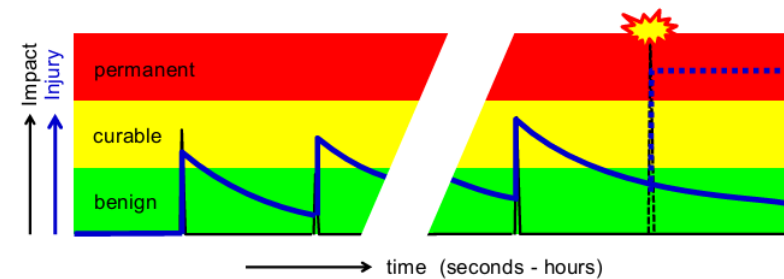
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NAUTICAL MILES



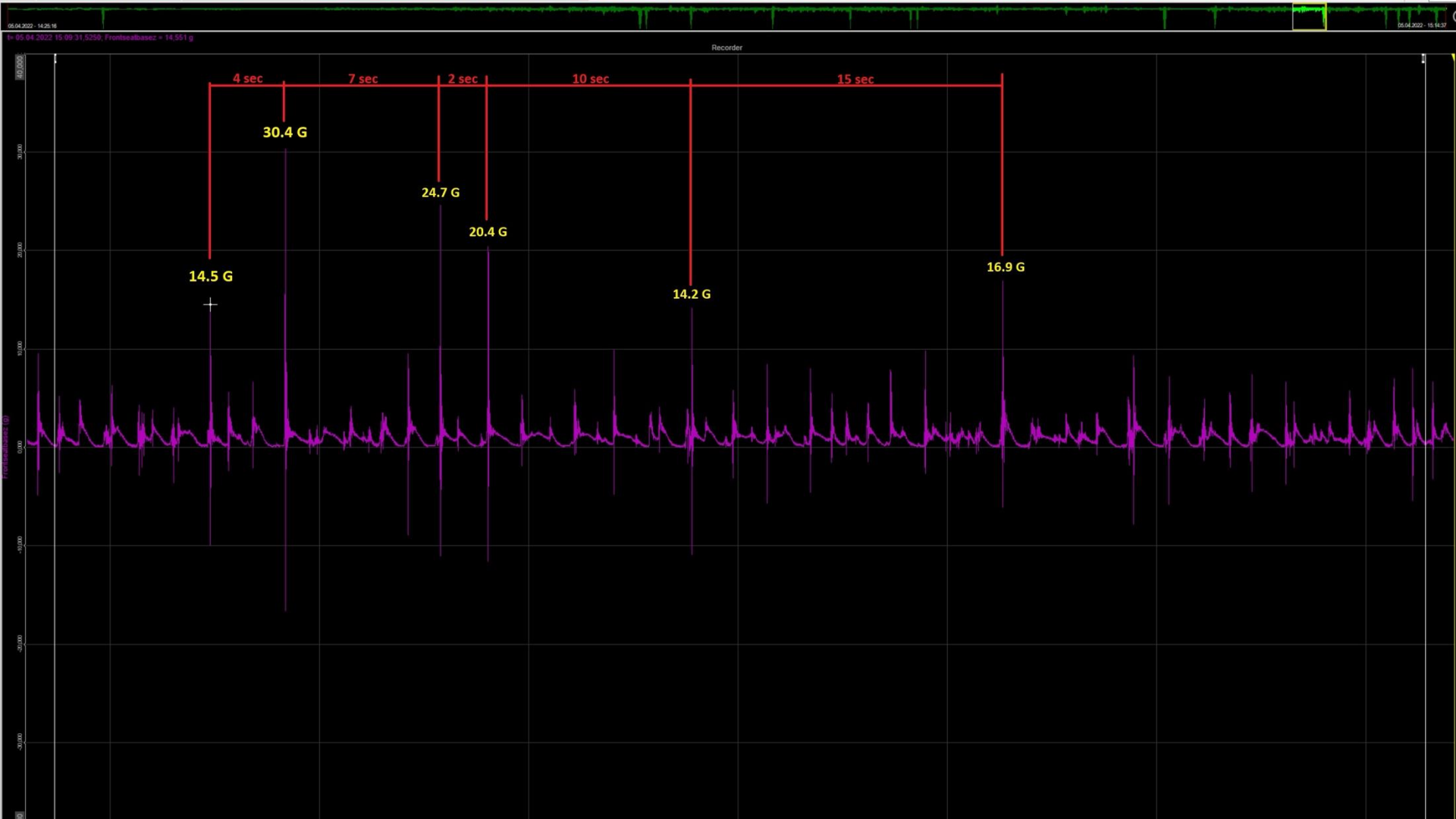
Injury mechanics for HSBO

Short-term = seconds - hours

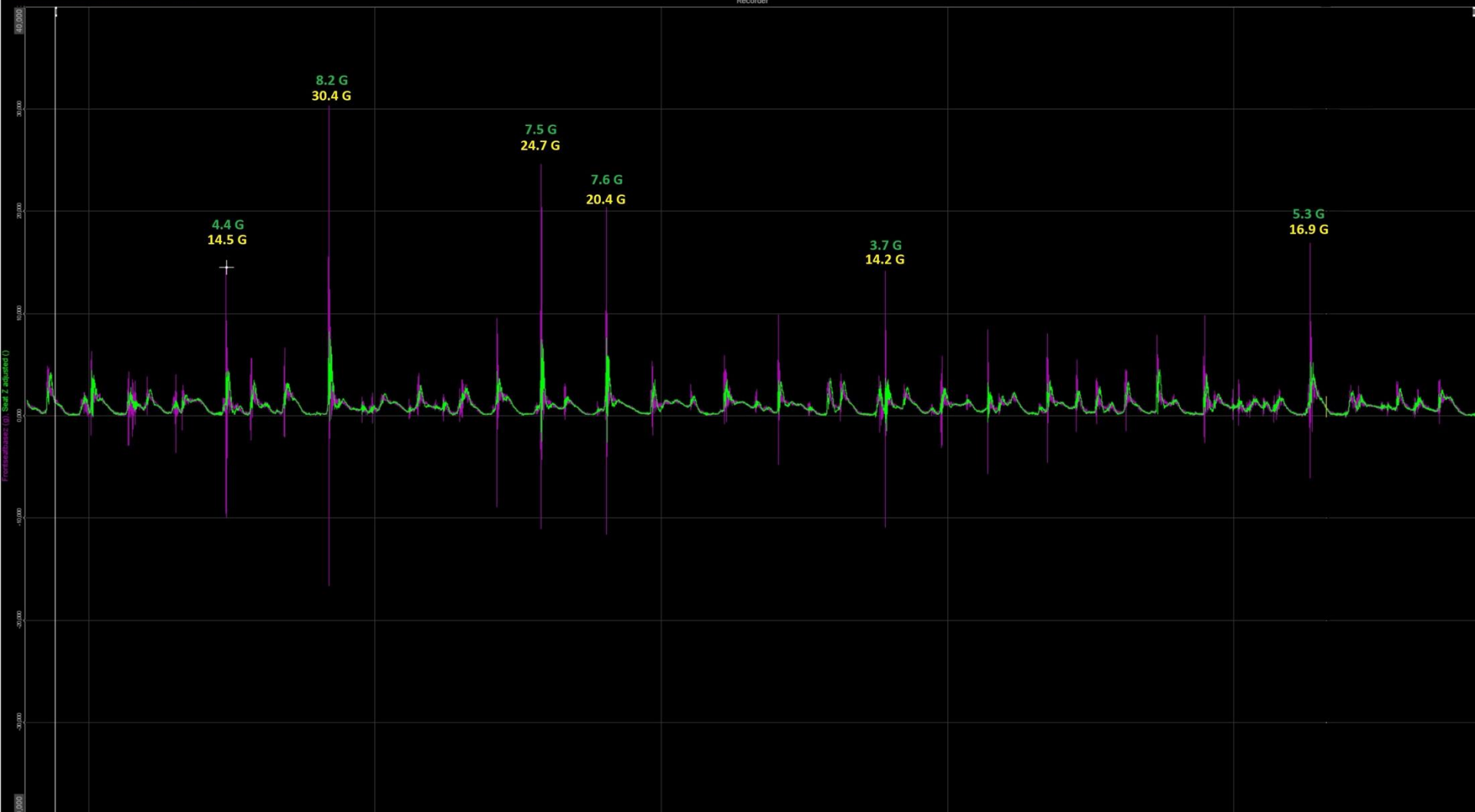


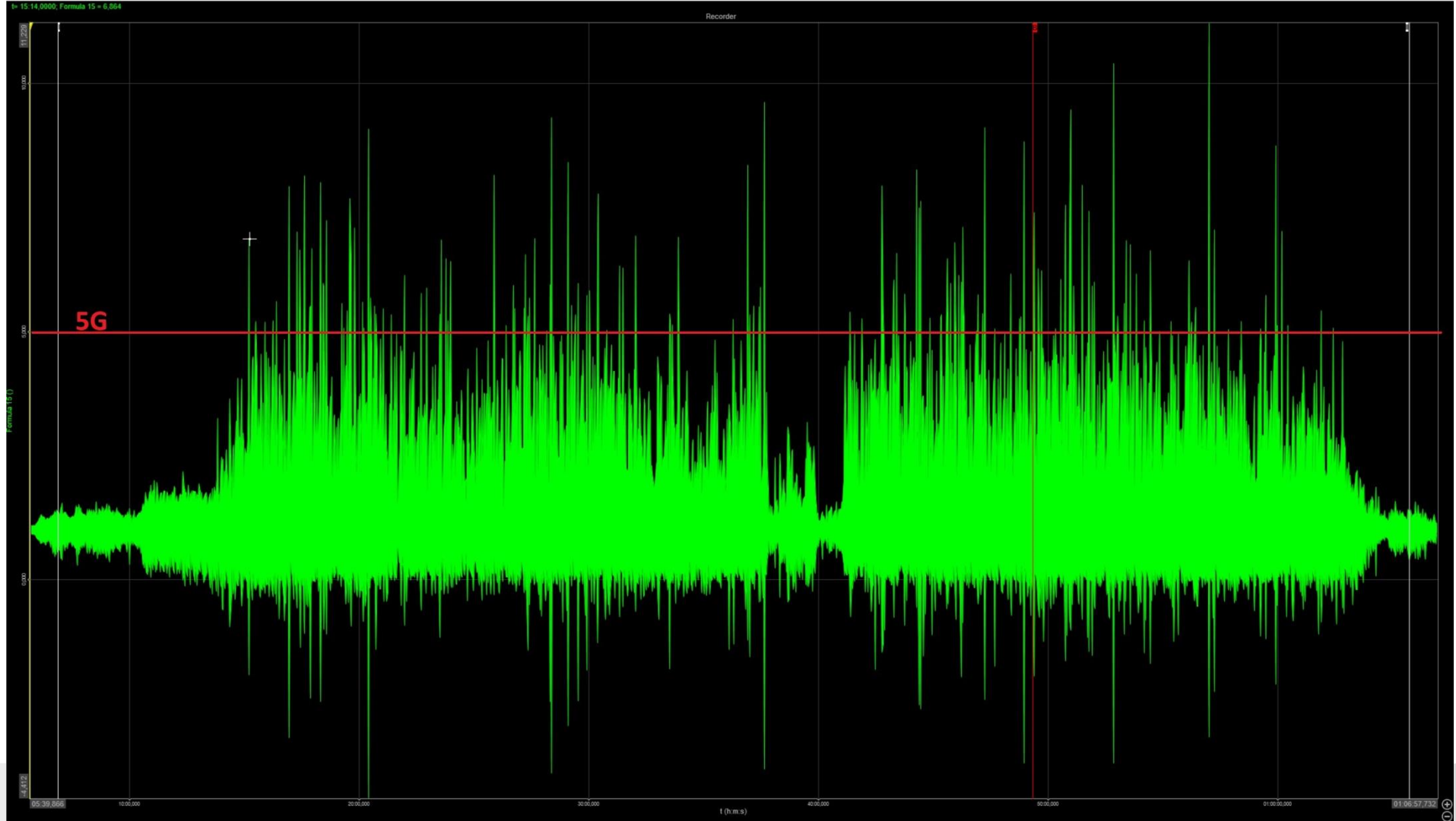
- **Recovery** (in between impacts)
- **Accumulation** (over impacts)











Aspect	Risk Level	Notes
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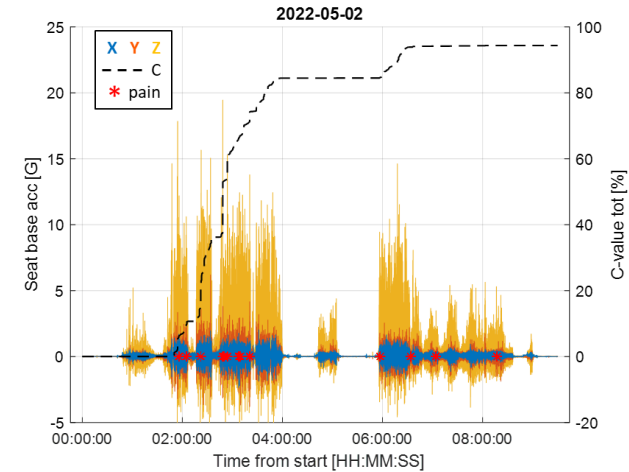
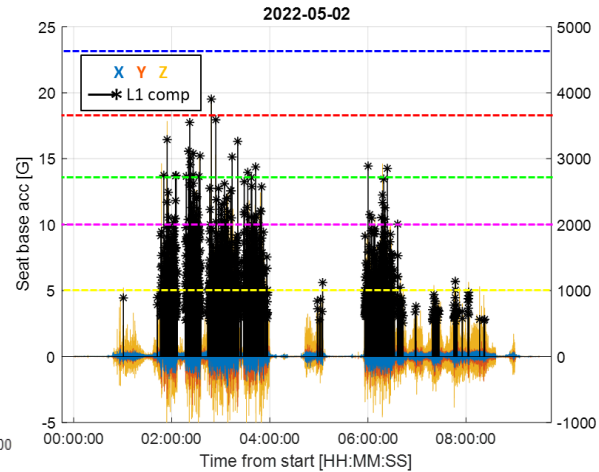
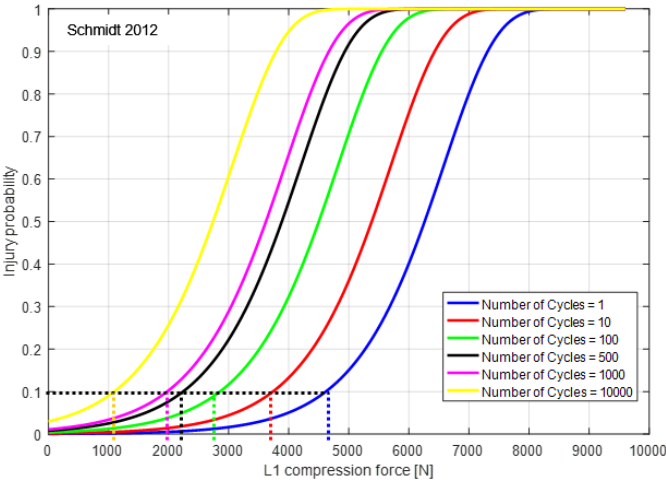


Recommendation:

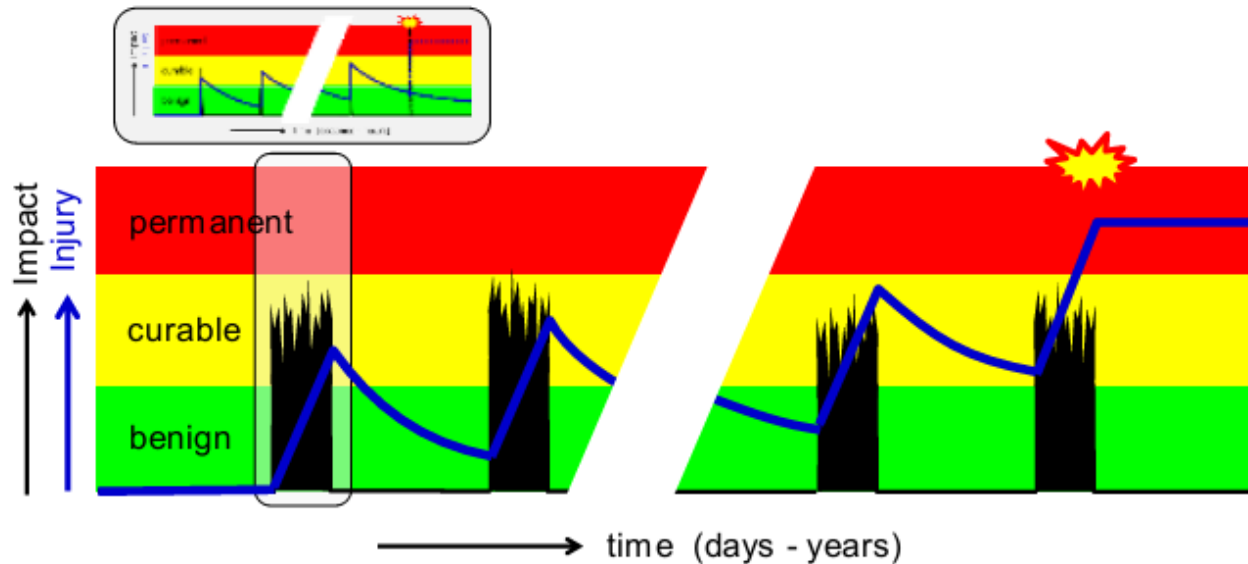
- Implement **shock-absorbing seats**
- Limit **daily exposure** for crew/passengers
- Use ISO 2631-5 modeling to assess SRV (Spinal Response Value) if needed
- Consider real-time monitoring of vibration & g-forces

🕒 Many impacts are very short (0–4 ms), implying sharp, sudden jolts — the kind most likely to affect the **spinal discs** and **joints**, even if individual energy is low.

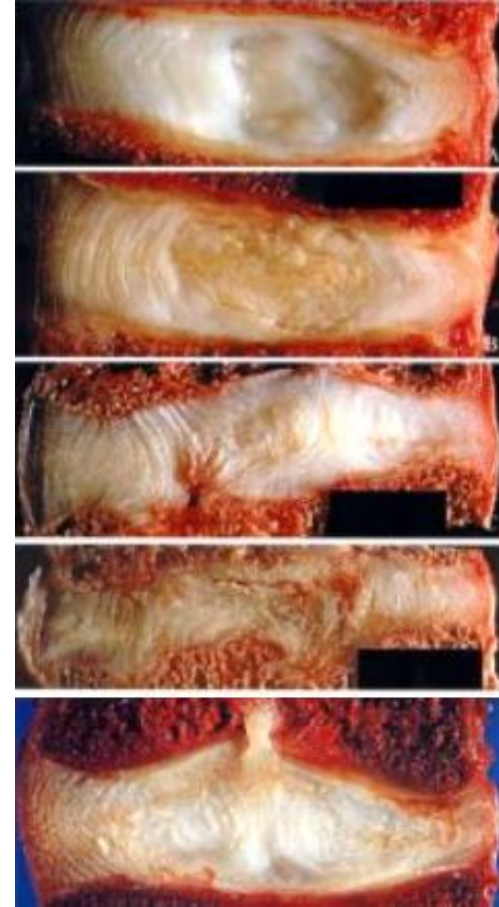
Injury mechanics for HSBO



Long-term = days - years



- **Recovery** (in between intervals)
- **Accumulation** (over intervals)



Industry needs

- Injury risk awareness from operators
- Clear definition of the measurement methodology
- Threshold definition/guidance
- Sharing of data



Viking approach in the meantime

- Instrumentation of the boats with commercially ready sensors
- Adaptation of the sensors to Defence operation
- Situation awareness tool for pilot in real time
- Historical log of trip data.

