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Reducing noise levels in high speed patrol craft, how to do it and why



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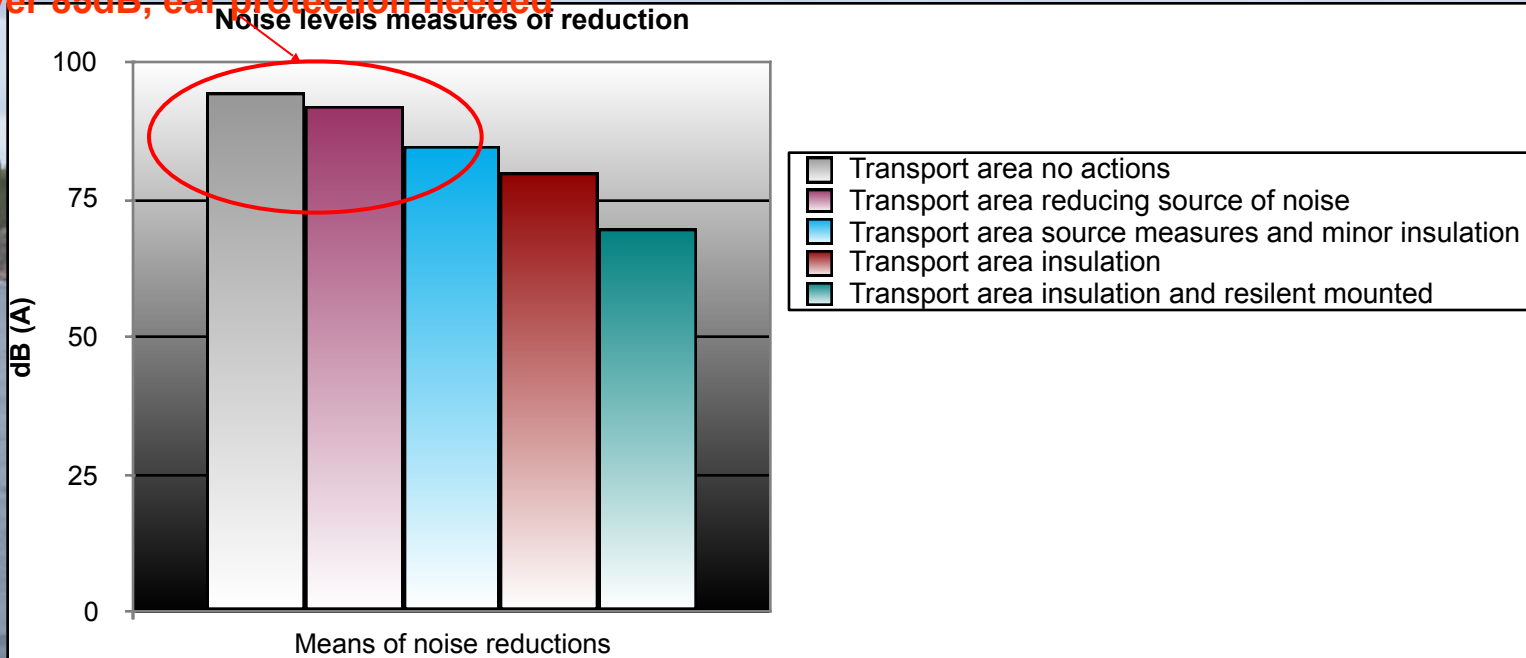


Why?

- Research show that long term exposure to high noise levels reduce wakefulness and increase reaction times.
 - Opposite to the normal behavior where reaction times are longer in the morning, reaction times where actually longer in the afternoon for the studied group.
- *Fatigue after work in noise - an epidemiological survey study and three quasi-experimental field studies*
 - [Anders Kjellberg](#)¹, [Per Muhr](#)², [Bjorn Skoldstrom](#)¹

Examples of noise levels in patrol boats

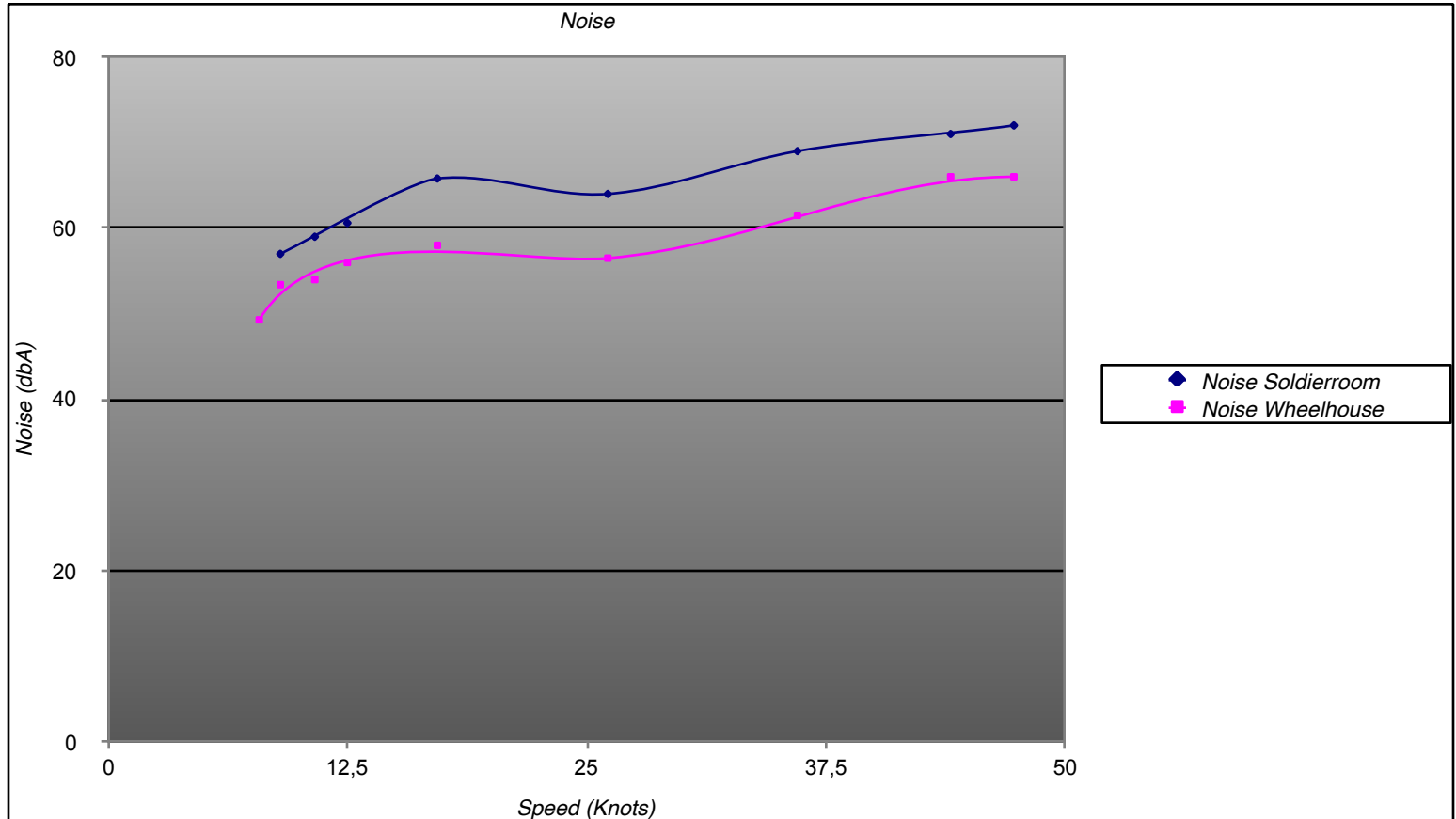
Over 85dB, ear protection needed



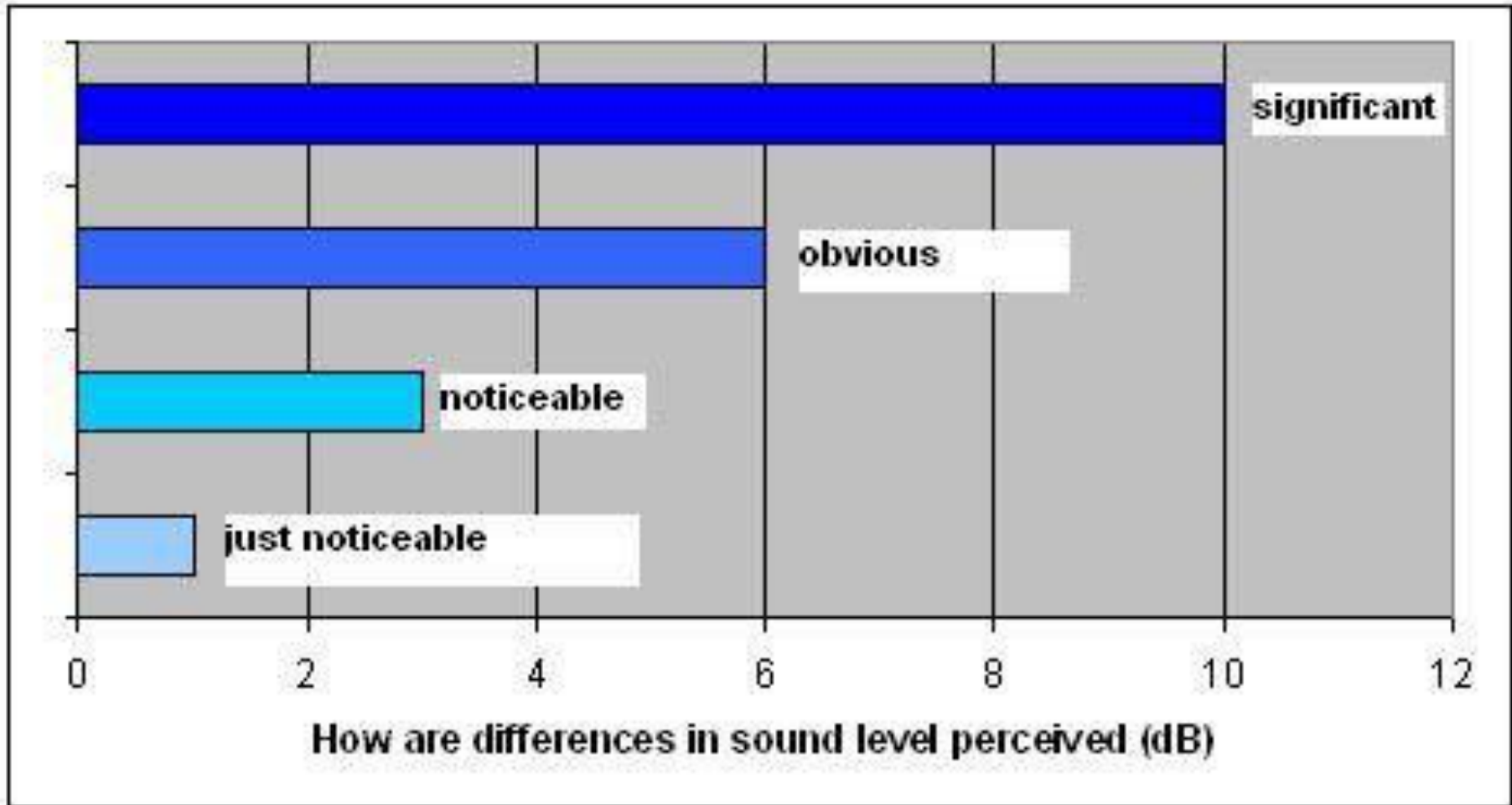
1. Lexus 600 h, 69.3 dB
2. Mercedes S-klass, 71,9 dB
3. Volvo V70, 72,2 dB



Noise levels in IC20



Noise levels in IC20



- Reduction of 10dB is perceived as half noise level to human ear.

What will this mean for the crew?

- Improved internal communication
- Crew will arrive rested and at it's best to perform the task at hand

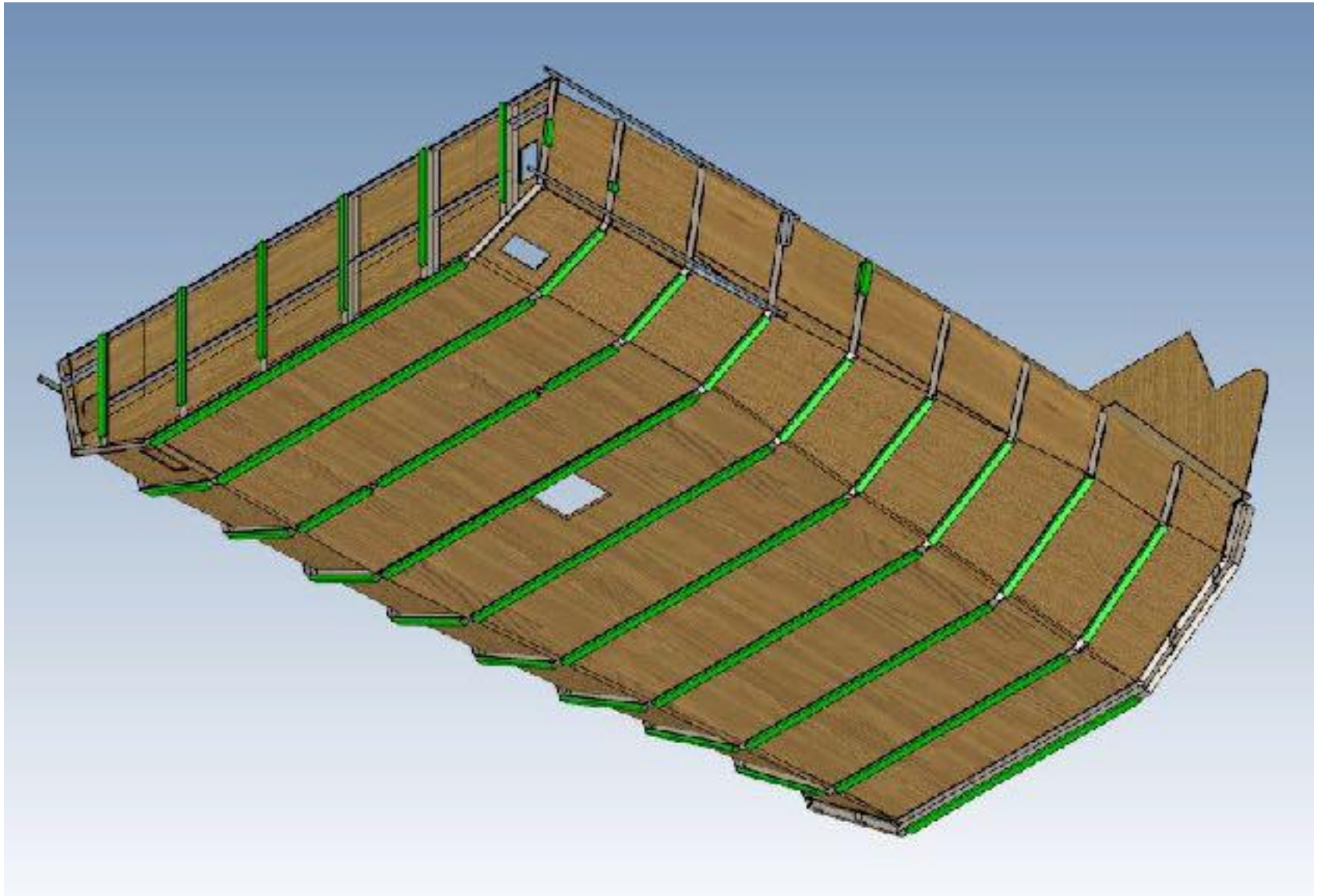


How to achieve low noise levels

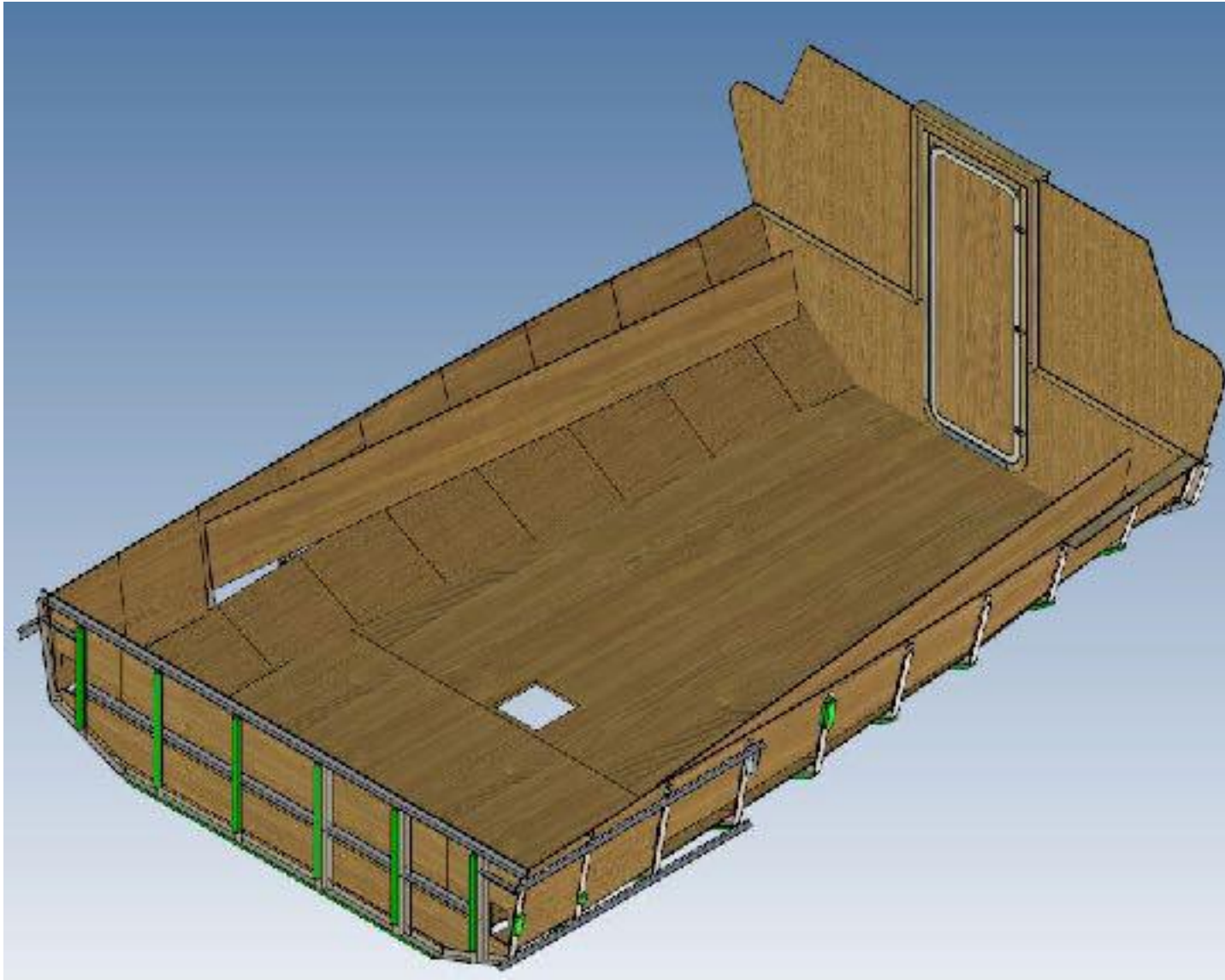
- Needs to be considered from start to finish
 - Always start with the source! Quiet components if possible
 - Isolation of noisy components
 - Insulation of engine room
 - Stiff foundation for noisy components



How to achieve low noise levels



How to achieve low noise levels



IC20 Movie

<https://www.youtube.com/watch?v=gjW9YclaE30>



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