

## Beaufort Gyre Exploration Project: Dispatch 36: The engine room

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This evening Senior Engineer Kevin Baker gave me a tour of the engineering spaces on the ship. We went through the main engine room, the welding shop, machine shop, control room, and all the other places we don't normally see. On a ship the size of the Louis, there is quite a lot going on at all times.

The ship is propelled by three large screws via drive shafts each with their own huge electric motor. To run these motors each one has its own engine - an enormous straight eight cylinder diesel. Each shaft also has its own braking system which is a large clamping unit much like the one on the windlass. The drive shafts also run on huge thrust bearings about four feet across. Any engine shaft will have bearings but the idea of a thrust bearing is to carry the weight of the shaft and also to control its forward force. Elsewhere we saw the fuel, water, sewage, and cooling systems and I got to see the ship's steering and refrigeration systems.

Later in the evening Dr. Bill Williams gave a talk summarizing the work performed and data collected during this trip. One of the most remarkable points was the lack of ice. The lowest ice year in recent history has been 2007 which was way below the norm. Well, 2012 is even worse by far.

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