

high-tech hull cleaning

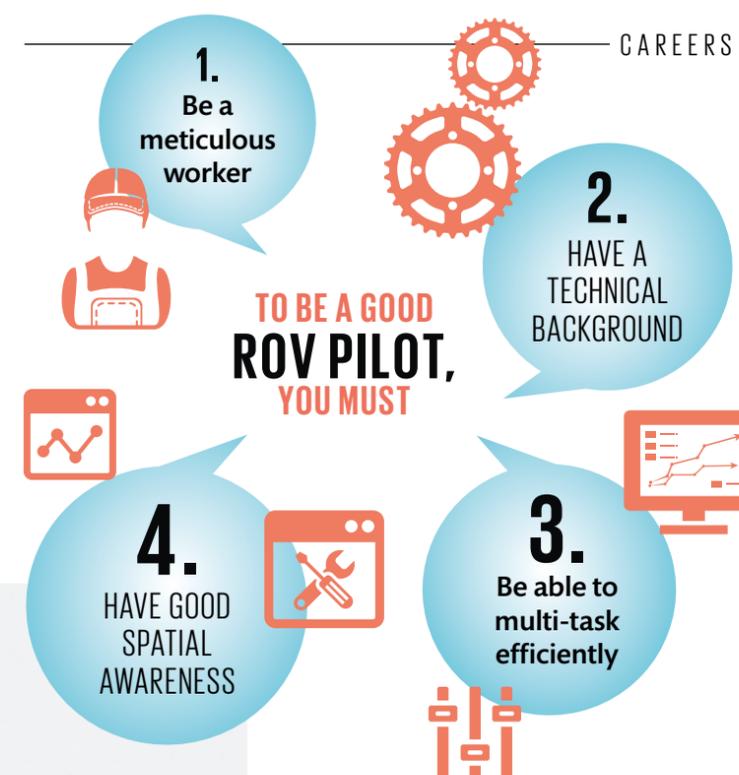
This isn't your everyday cleaning job, as it involves live camera and data feeds and remote-controlled equipment. AJ Leow finds out more from ROV Pilot Syahrul Hatta

Syahrul Hatta, 32, has a job that is unique even in the local maritime industry, which employs more than 170,000 people. He is a remotely operated vehicle (ROV) Pilot with C-Leanship, which performs underwater hull cleaning for vessels passing through the Port of Singapore. C-Leanship currently has two ROV teams and one ROV engineering team manning its hull cleaning activities and operations here.

Hull cleaning is traditionally done by diving teams in shallow water. Using ROVs allows the job to be carried out at any time, without disruption to



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a vessel's normal operations. It also reduces the risk of mishaps, including fatalities to personnel performing underwater tasks. The use of a suction manifold allows the biofouling debris to be collected, keeping the waters in the port clean.

Each cleaning job is normally conducted by a three-man team. Two members are stationed in a 20-foot-long container on board a workboat, which serves as an operations room; the third operates a winch tethered to the workboat, which supplies power and communications to the ROV. Each team typically works 12-hour shifts, and sometimes rotates duties. Syahrul notes that 400m-long container ships can typically be cleaned within a single port call.

The process is controlled by a lead pilot, who operates the ROV and its water jets, navigating remotely via a screen in the cabin. He is assisted by a co-pilot who monitors real-time data on cleaning operations, power consumption, and other operating parameters. Live feeds from the ROV's eight cameras facilitate each cleaning operation, as does feedback from the subsea navigational and positioning system that incorporates a 3-D electronic chart of the ship's hull form on which the ROV's movements are monitored in real time.

Says Syahrul, "The on-site operations are not only confined to underwater cleaning. They also

require the ability to read and interpret vessel drawings for the setup of the 3-D navigational system, and continual assessment of system health and performance. Planned maintenance between jobs and improvement/development activities require a solid technical understanding.

"The administrative part of the job starts with risk assessments, job planning and securing permits from the Maritime and Port Authority of Singapore (MPA) and/or PSA; it culminates with a job completion report to the customer and an internal debriefing. There are a lot of concurrent plans and activities as each team typically handles two to three hull cleaning jobs a week, at different locations in Singapore, such as the PSA terminals or the eastern and western anchorages."

Syahrul finds satisfaction in executing and completing each cleaning job safely and efficiently, and in contributing to the enhancement of the vessels' performance; a clean hull lowers fuel consumption and hence, carbon footprint. He also finds it fulfilling to help keep the waters environmentally clean – since debris from the cleaning process is automatically collected, it helps mitigate the global migration of invasive species of marine life.

Previously, when he was working in offshore construction, Syahrul had seen ROVs in action (his previous job required three- to four-month offshore stints in the Gulf of Mexico or North Sea). "I was always intrigued by how they were deployed in pipe-laying, or underwater surveying of offshore structures," he says. It was while he was on shore leave back home that Syahrul chanced upon a job advertisement for an ROV pilot. He contacted C-Leanship, took an online test, was interviewed, and got hired.

It took him about a year to learn the ropes before becoming a full-fledged pilot; he later became a team leader. He currently enjoys being able to offer input and contribute to the design of newer ROVs by SAAB Technologies, which C-Leanship hopes to add to its current fleet. The company structure is dynamic, and there are opportunities for ROV pilots to become ROV engineers and be involved in the development of future ROVs, and vice versa. For now, Syahrul still wants to pilot ROVs as far as possible.

On his days off, Syahrul likes playing sports and computer games to develop his psychomotor skills, and catching movies with his colleagues. "I enjoy our camaraderie, which is important as we often have to work in close quarters."