Case Study

Iraqi Naval Fleet Mainitenance, Repair and Overhaul (MRO)



Re: Continuous Lifecycle Support (CLS) to provide Follow-on Technical Support

Intro:

Swiftships relationship with Iraq Navy (IqN) started on 35m Patrol Boat program in 2009. In partnership with the US Naval Sea Systems Command (NAVSEA), Swiftships built and delivered 12 (Twelve) 35m Patrol Boats designed for the IqN. The program earned a gold standard reputation due to Swiftship's capability to deliver the vessels in 36 months, an extremely tight schedule for state-of-the-art 35m Patrol Boats design and customized features to suit their needs.

Basis of Award:

In 2014, the Iraq Ministry of Defense (MinDef) awarded Swiftships the sole source 4 (four) year Continuous Lifecycle Support (CLS) program under Foreign Military Sales (FMS) contract via NAVSEA. Under the agreement, Swiftships managed the maintenance of all vessels operated by the IqN, including maintenance support and repairs. In addition to SRF, the contract provided technical expertise in preventative and planned maintenance, emergency repairs, and platform overhaul support services. Swiftships overtook management and modernization of the existing Iraqi Naval Base at Umm Qasr, formerly known as the ITSAM camp, built by the US Coalition forces in 2009. Our team resided in-country inside the Iraqi Naval Base Camp, now known as "Camp Swift," and managed the overall scope of IqN fleet maintenance.

Scope:

Swiftships provided Continuous Lifecycle Support (CLS) to the Iraqi Naval Fleet in Umm Qasr. CLS included: Two (2) 62m offshore support vessels (OSVs), Twelve (12) 35m Patrol Boats (PBs), Twenty Six (26) 40ft Defender Class Boats, One (1) drydock, One (1) syncrolift maintenance, One (1) dyno-facility, One (1) ship repair facility (SRF) to provide all port side activity, and Three (3) warehouse. In addition, Swiftships managed the entire Facilities and Base Security with both Static and Dynamic security personnel.

Operational Readiness:

Swiftships provided Planning Yard, where IqN Fleet operational readiness stood at a benchmark level of 80%. Swiftships, sustainment management team, was on-call 24/7 and supported IqN mission readiness with Corrective and Preventative Maintenance. The Swiftships team helped and maintained all assets for over four (4) years.





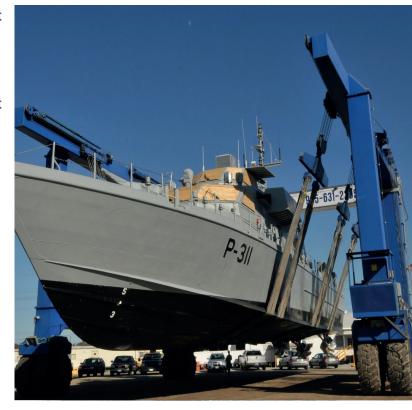
- Northrop Grumman Sperry Mission Bridge support
- Raytheon Mission Bridge System support
- MTU 16V2000 engine overhaul and electronics support
- ZF Gearbox maintenance support
- CAT Engines and Generator maintenance support
- Yamaha engine (outboard) maintenance support
- 30mm MSI Guns and Electronics Systems support
- Radar and System Electronics System support
- 5-7m RHIB maintenance support
- Hull, Mechanical and Electronics support
- Structural and Program Management support
- Facility & WH Management System support
- Drydock Maintenance and Operational support

Result: We advised and assisted with site layout and design for optimum Vessel Sustainment mission support against specific mission readiness. We helped design and built clean rooms to enable on-site engine overhauls.

Quality Assurance:

Swiftships Quality Assurance (QA) worked with US Navy Port Engineers on-site (in-country) to achieve the highest quality ratings for our customers most efficiently and cost-effectively. We used our proven five (5) process methods:





- In-Process Testing and Inspection: Performed during Maintenance Cycle
- Level 1 Testing: General Systems Checks. Ensures piping, electrical, and mechanical systems are correctly installed
- Level 2 Testing: Dockside testing of all systems before getting underway. This testing is usually coupled with a river run to check propulsion and navigation equipment
- Level 3 Testing: Underway testing of all systems. This testing consists of an endurance run at speed to ensure propulsion plant is at an optimal level of performance. All designs are tested during this phase. If there are any defects during this phase, the contractor and s ub-contractors will adjust and re-test
- Special Testing: These tests are generally explicitly created for unique equipment aboard the vessel, such as weaponry, RHIB units, cradles, etcl support

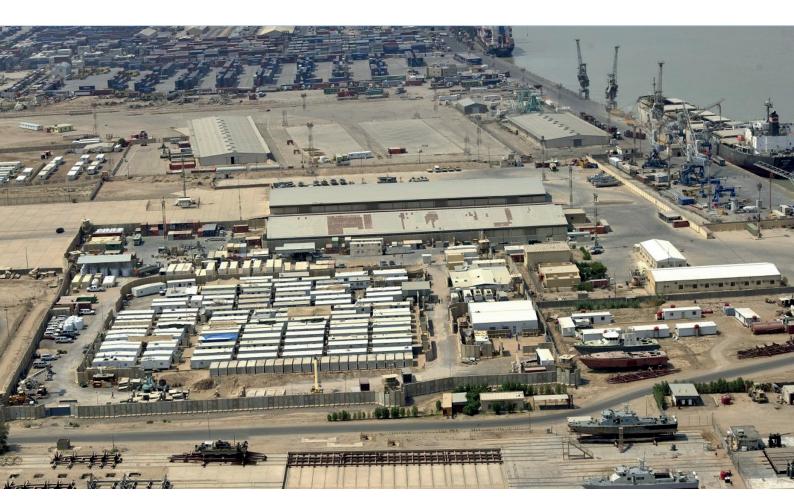
Result: To ensure all defects were resolved, all testing procedures were approved and signed by the USN QA representative, Customer Representative, and Third-Party certifier representative. We also used our state-of-the-art online portal to track defects to minimize reoccurring issues.





Preventative and Corrective Maintenance Support:

Swiftships used a custom-built Computer Management Maintenance System (CMMS) to check out material from several warehouses. Swiftships worked with other client representatives, including but not limited to port engineer client maintenance support, and provided site/capabilities assessments; material condition assessments. The staging of vessels and associated materials were planned according to the level of deficiency and mitigation. A ship with high priority (Level 3 and 4) deficiencies will be staged closer to the pier to ensure ease of crane, materials, and personnel access. The vessel with lower priority levels (Levels 1 and 2) was put back in the cue till resources were available.



Training and Supply Chain Management:

Swiftships also provided in-country training on all systems operations and systems preventative and mid to significant repairs. In-country training; material/equipment procurement; defining country-specific material/spare parts requirements; warehousing; Our on-site staff included, Purchasing and Integrated Logistics Support team members capable of supporting a full spectrum of material procurement from spares parts to preventative maintenance parts using in-country and worldwide supplier Network. Our in-country logistics personnel documented, labeled, and stored all incoming parts and conducted joint inventory.

Conclusion:

Our in-country maintenance has proven to be successful with customers worldwide. Our Planning Yard (PY), Facility Management, and Ship Repair Facility (SRF) program is standardized in line with USN's standards, and it can be customized to fit any customer's unique needs.