

In the Shipyards



Photos by Rob Morris



► VICTORIA SHIPYARDS

Probably one of the most unusual vessels anywhere, and certainly to arrive at the Esquimalt Graving Dock, is the OCEAN ODYSSEY (top photo). Sea

Launch's sea-going rocket launching platform was damaged by the explosion of a Zenit rocket at lift-off on January 30, 2007. Apparently the capability of the graving dock and Victoria Shipyards to accommodate the vessel for repairs within a fairly immediate time frame, as well as the lack of bottlenecks for the immense craft, such as bridges and narrow waterways, brought ODYSSEY to Victoria. OCEAN ODYSSEY is a former North Sea semi-submersible oil-drilling platform launched by Sumitomo Heavy Industries, Japan, in 1982 as the OCEAN RANGER II (the name was changed to OCEAN ODYSSEY after the tragic capsizing of the OCEAN RANGER platform off Newfoundland). ODYSSEY measures 436' x 220' and, when submerged for launchings (note the white and yellow draft bands in the photo), has a displacement of 50,600 tons. When built OCEAN ODYSSEY was ABS-classed for unrestricted worldwide ocean service. It has a twin-hull design with a 12,450 hp propulsion system.

The Sea Launch consortium (consisting of Boeing Co. of Seattle, RSC-Energia of Moscow, Kvaerner ASA of Oslo

and SDO Yuzhnoye/PO Yuzhmash of Dnepropetrovsk) converted (1995-1997) OCEAN ODYSSEY to a satellite launch platform at the Kvaerner Vyborg shipyard, Norway. The platform was extended and support columns installed, plus additional propulsion systems. The former upper-deck drill floor was converted to a launch pad and rocket service hangar and an erector system installed that raise rockets to the vertical launch position.

The accidental explosion obliterated the Zenit-3SL rocket and its payload, the \$300 million NSS-8 satellite. The rocket fell through the launch pad onto the flame deflector plate and exploded, destroying the pad and damaging the platform hangar doors and other areas. ODYSSEY's main propulsion systems were undamaged. The Sea Launch Failure Review Oversight Board determined that the "anomaly" was caused by "foreign object debris" – a metallic object – becoming lodged in a pump, resulting in friction-induced heat which set the pump on fire, then the rocket engine, then the Zenit 3SL rocket. Repair of the hangar doors, steel work, electrical work and painting formed the bulk of the tasks for about 150 Victoria Shipyards workers plus a range of maintenance items such as tank cleaning, installing a heli-deck safety net and insulation work.

The OCEAN ODYSSEY was accompanied to Esquimalt by its mothership SEA LAUNCH COMMANDER (bottom photo) which houses mission control, provides support services and transports the rockets and satellite payloads (apparently loading them onto ODYSSEY through the forward hangar doors, visible under the wheelhouse in the photo). There is a lot of info on the Sea Launch vessels and the explosion on the web; search "Sea Launch".

► LIQUID METAL MARINE

From the office window the view over the shop floor includes a 26-ft hull (photo next page), the first component for a Coast Guard Auxiliary high-speed SAR RIB. All the CG RIBs need to be self-righting now so this one was awaiting measurement by a naval architect and will receive an auto-inflated righting bag mounted on a radar arch as well as a Polaris neoprene-hypalon collar. In the door of the shop is a 15-ft prawn sportfisher for Saanich Inlet which will receive a centre console and a 40-hp Mercury outboard engine. The aluminum is on hand to commence construction for a local customer of a Liquid Metal-designed 31-ft cabin cruiser with a single 350-hp Volvo D6 on Duoprop sterndrive. It will be the company's biggest cruiser built to date. Liquid Metal fabricates a number of items including ramps and gangways, fuel tanks, outboard brackets and transom extensions. Under fabrication to the left in the photo is a prototype communications system module for insertion in the back of a Ministry