## Sea Launch Command Vessel Named

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At 11 a.m. yesterday (Sept. 22), the Sea Launch Assembly and Command Ship "Sea Launch Commander" was formally named at the Kvaerner Govan Shipyard, Glasgow, by Mrs. Bobbie Cromer, wife of Mr. Don Cromer, chairman of Hughes Space & Communications International, Inc., of Los Angeles.

Sea Launch, a multi-national sea-based commercial satellite launching venture, comprises two unique vessels: the Assembly & Command Ship nearing completion of fitting out at Kvaerner Govan, Glasgow, and the Launch Platform currently at Kvaerner Vyborg Shipyard JSC, Russia, where rocket launching equipment is being installed.

The Sea Launch joint venture partners include Kvaerner ASA (Oslo), Boeing Commercial Space Co. (Seattle), RSC-Energia (Moscow) and KB-Yuzhnoye/PO-Yuzhmash (Ukraine).

Hughes Space & Communications has contracted with Sea Launch for 13 launches. The first mission will be in the autumn of 1998 when the first of Hughes' latest model communications satellites (an HS 702) is to be launched into geostationary orbit. The satellite will be part of the PanAmSat satellite network.

Speaking about today's ceremony, Sigbjorn Ellingsen, president of Kvaerner Govan, said, "This occasion marks a further important step in Kvaerner's association with Sea Launch. We're immensely proud of the work that has been undertaken in Govan for this unique vessel, and we wish her well on her future missions."

Allen Ashby, president of Sea Launch, said, "The official naming of the Sea Launch Commander symbolizes the progress that the international Sea Launch Consortium is making toward developing a cost-effective and reliable service offering true equatorial space launches.

"Particularly, it represents an important milestone toward Sea Launch's first launch next year.

"We're also proud that Bobbie Cromer, wife of Don Cromer, chairman of Hughes Space and Communications International, could be with us today to christen the ship. Hughes is not only Sea Launch's first customer, but also a long-term purchaser of a total of 13 launches from Sea Launch."

Two unique vessels make up the infrastructure of Sea Launch. Accompanying Sea Launch Commander is the self-propelled Launch Platform, built at the Kvaerner Rosenberg shipyard in Stavanger, Norway, from a former North Sea oil drilling rig. It is one of the world's largest semi-submersible structures, with an empty displacement of 31,000 tons (46,000 tons submerged).

During transit to the launch site, the rocket is carried in an environmentally controlled hangar. Rocket fuel sufficient for each mission is carried in special safe storage facilities on board. Specially designed mobile transporter/erector systems will roll out the rocket and erect it into the launch position immediately prior to fueling and launch. Living, dining and recreation facilities are provided for 20 personnel, who, during the launch itself, will withdraw to Sea Launch Commander, with the Launch Platform under fully remote control.

Construction of the 34,000-ton Sea Launch Commander began in 1996 at the historic Kvaerner Govan shipyard on Glasgow's River Clyde. It will serve as a floating rocket assembly factory while in port and as mission command center during launch operations at sea. In addition to crew accommodations, Sea Launch Commander provides comfortable quarters for up to 50 customer launch team members and includes communications, administration and entertainment facilities.

NOTE TO U.S. EDITORS: The international Sea Launch consortium, upon completion of the vessels, will operate its Home Port in Long Beach, Calif. Space launches, using the two vessels described, will be conducted at sea along the equator near Christmas Island. As mentioned, the first launch is scheduled for 1998.

The roles of Sea Launch's partners are:

- Boeing Commercial Space Company of the United States acts as integrator of the Sea Launch project, producing the payload fairing and interface hardware, developing the Home Port facility, and providing spacecraft integration and overall mission operations.
- Kvaerner Maritime a.s. of Norway is responsible for the design and construction of the Assembly and Command Ship and the modification of the Launch Platform. In addition, Kvaerner integrates the marine elements of Sea Launch and performs marine operations.
- KB-Yuzhnoye/PO-Yuzhmash of Ukraine produces the two-stage Zenit launch vehicle and provides operations support to Zenit processing and launch operations.
- RSC Energia of Russia contributes the design and manufacture of the Block DM-SL upper stage and is responsible for Sea Launch vehicle integration, launch operations and range services.

Sea Launch