Transas reflects upon a successful year of cruise ship developments

February 2013. – 2012 presented a number of interesting challenges for the Transas ship modeling and hydrodynamics department, not least of which was the high fidelity modeling of more than ten vessels successfully completed for various high-profile members of the global Cruise Industry.

The year began with the development of several in-service vessels for the Resolve Maritime Academy, in support of their training programs for Royal Caribbean Cruises Ltd (RCCL). This included the Celebrity Solstice, Freedom of the Seas, Vision of the Seas and TUI Mein Schiff 1. Each was painstakingly developed and validated to ensure the highest level of realism when compared against the equivalent operational vessel.

Two further RCCL vessels, still in the process of construction at the builders yard, were also modeled for Resolve; Quantum of the Seas and the TUI Mein Schiff 3, both due for maiden voyages in 2014. Neil Bennett, Vice President at
Transas USA commented, "Modeling vessels that are yet to leave the yard presents real challenges for development, predominantly because there is only limited data available to work with. However, the value of being able to train officers who will one day sail aboard that vessel, and to have the opportunity to run simulated trials of that vessel entering some of the ports to which she will eventually sail, even before she is floated out, is immense."

George Toma, President at Transas USA added, "The site of one of these vessels approaching port is often breathtaking, and we at Transas strive to ensure that the experience of using the simulated version of such vessels is no less awe-inspiring."

In parallel, Transas developed the Emerald Princess and the future Royal Princess, due in service in the spring of 2013, for CSMART, the Center for Simulator Maritime Training, located in Almere, The Netherlands.

Most recently, another Cruise vessel, The Le Boréal, was developed for the French cruise line Compagnie du Ponant. She won the award for "Best Newcomer of the Year – GOLD" from the European Cruiser Association (EUCRAS). As interpreted by designer Jean-Philippe Nuel, "she is the fruit of the expertise of the Italian Fincantieri shipyard and French sophistication".

Close cooperation between customers, developers and shipyards resulted in the creation of precision models, incorporating all the effects required for high level, professional training. Such cooperation usually includes ship visits, online validation sessions with simulator instructors, ship owner representatives and captains. Model developers also exchange data directly with shipyards, among others Fincantieri - Cantieri Navali Italiani, the Meyer Werft shipyard in Germany and STX Finland Cruise Oy. The combination of scientific expertise, many years of experience, and the latest generation of Transas' flexible modeling engine, "Virtual Ship Yard", ensures highly realistic environmental, bank, vessel and channel interaction effects, special hydrodynamic effects for pod-driven vessels, tug interaction and much, much more. In addition, realistic ship-specific virtual control pages and hardware consoles have been created for each of the vessels.

Markus Battenfeld, Product Manager Databases at Transas Marine, says:
"Transas is already looking forward to more developmental challenges in 2013, which we hope will contribute to safety at sea, provide an opportunity to accurately simulate current and future vessel types, and to verify port and terminal designs as viable cruise ship destinations."

**Background information**

**Resolve Maritime Academy**

The Resolve Maritime Academy, located at the home port of many cruise vessels, in Fort Lauderdale, Florida, is the maritime training subsidiary of Resolve Marine Group, Inc., and amongst their many maritime training services, offer a number of dedicated and customized simulation training programs for Cruise Operators, for which the highest level of quality in simulation modeling is 'a must'. Resolve's simulation systems are arguably some of the most advanced in the World, providing highly flexible bridge and bridge wing environments, with the ability to train on several different Integrated Navigation Systems (INS).

**Royal Carribbean Cruises Ltd (RCCL)**

RCCL is a global cruise vacation company that operates Royal Caribbean International, Celebrity Cruises, Pullmantur Cruises, Azamara Club Cruises and CDF Croisieres de France, plus has a 50% stake in TUI Cruises.

**CSMART, the Center for Simulator Maritime Training**

CSMART is the Dutch branch of Carnival plc UK, which is a division of the Carnival Corporation & plc group. CSMART clients include some of the world's largest cruise companies like Princess Cruises, Carnival Cruise Lines, Ibero Cruceros, Costa Cruises, The Yachts of Seabourn, Holland America Line, AIDA Cruises, Cunard Line and P&O Cruises, all of them individual cruise line brands of the Carnival Corporation & plc.