Georgina Maldonado-Aguirre

Summary of Qualifications

Fifteen years experience in engineering computer simulation and analysis of the installation, design, and review of offshore structures. Experience also includes client support of software products.

Education

1993 M.S., Ocean Engineering
Texas A&M University, College Station, Texas, USA

1991 B.S., Mechanical Engineering
Massachusetts Institute of Technology, Boston, Massachusetts, USA

2001 Registered Professional Engineer in the State of Texas: P.E. Number 89381

Work Experience

2007 - Present Client Support Specialist and Consultant, Ultramarine, Inc., Houston, Texas

Joined Ultramarine, Inc. to provide client support of Ultramarine's software products and engineering consulting services.

Engineering Projects

- ◇ Designed a MOSES utility to provide real-time feed back to fix ballast installation of the Perdido Spar.
- ◇ Upen analysis of the HIA376 tripod.
- ◇ Designed loadout ballast sequence for Peridod Spar deck.
- ◇ Calculated allowable KG for the Gumusut Semi-submerisible platform.

2006 - 2007 Client Support Specialist and Consultant, Ultramarine Offshore Consultants, Houston, Texas

Client support of Ultramarine's software products and engineering consulting services.

2002 - 2006 Owner, Desert Waterways, El Paso, Texas

Contract services for the offshore industry.

Engineering Projects

◇ Brent Flare Tower wet tow analysis. The time domain analysis included the Brent Flare tower being towed by the Saipem S7000 vessel. Both crane hooks were modeled for this analysis.

◇ Two block upend analysis for Devon Energy - Campos Basin development. Two analyses were performed, one with the jacket being rotated mostly in the air, the second with the jacket being rotated mostly in the water. Both simulations included a structural analysis.

◇ Loadout analysis for a gas barge salvage. This analysis modeled the loadout of a barge being loaded onto a drydock via Mammoet trailers. The study results included longitudinal strength and ballast arrangements during the procedure.

◇ Bollard pull calculations for Horizon Offshore Brazos pipelay barge and the Sea Horizon barge.

◇ MOSES Training Seminar. Planner and instructor for MOSES engineering software seminars. Developed a workbook as a companion to the training sessions.

◇ Magnolia TLP ballast sequence analysis and design. This project lowered the TLP from a transportation draft to the final operational draft. The design kept the TLP at even keel, maintained the stress in the tendons within acceptable limits, and coordinated the pump sequence for weight and time efficiency.

◇ High Island A-582 - "D" Cyrus. Performed the engineering analysis to verify the upending procedure. This procedure included the use of two independent crane hooks.

◇ Eugene Island - Block 252. Performed the upending analysis for a four pile jacket. This procedure used only one crane hook.

◇ Alba Field Development. Performed the transportation engineering analysis of the jacket and the two deck modules. The analysis predicted the expected forces on the jacket and deck members as well as a structural code check.

◇ Motions Study for a New Build Floating Production Storage and Offloading Vessel (FPSO). The analysis predicted the motion and accelerations at several locations. The motions were based on the expected five environments and included five drafts. The study results were used to determine the optimal transportation draft.

◇ Scarabeo Semi-Submersible. 3D panel modeling for use in a motion analysis.

◇ Na Kika TLP. Review of messenger line transportation design.

2000 - 2001 Technical Professional - Marine, Brown & Root Energy Services, Deepwater Technology, Houston, Texas

◇ Performed two-body motion analysis calculations for Kizomba A. Developed estimates of the maximum relative motions between the Deep Draft Caisson Vessel (DDCV) and the Floating Production Storage and Offloading (FPSO) vessel.

1997 - 2000 Senior Naval Architect, Barnett & Casbarian Inc., Houston, Texas

◇ Engineering consulting and design utilizing MOSES (Multi-Operational and Structural Engineering Software) and in-house software. Project types included mooring design and analysis, hydrodynamic evaluation, and hydrostatic analysis.

Engineering Projects

◇ Brutus TLP. Stability analysis.

◇ DIANA Deep Draft Caisson Vessel. Transportation feasibility study of the deck modules and caisson hull.

◇ Chinook Deck Loadout. Design and execution of loadout ballast plan and dimensional control.

◇ Hercules Pipelay Vessel. Structural analysis of the stinger.

◇ Spirit Deck Loadout. Design and execution of ballast plan.

◇ Destin Deck Loadout. Design of ballast plan.

◇ Storage Unit Salvage. Analysis of several transportation scenarios for salvage of a Torus based storage unit.

◇ Unocal Thailand FPSO mooring development study.

◇ Global Marine Drilling Company Arctic I upgrade study.

Certification and Verification Agent Field Experience

◇ Amerada Hess Garden Banks 260 deck loadout.

◇ Grillage survey of barge H851 used for transportation of the URSA TLP.

◇ SPIRIT jacket loadout.

1993 - 1997 Client Support Specialist and Consultant, Ultramarine, Inc., Houston, Texas

Engineering Projects

◇ Marlin proposal Side Launch analysis of a spar off a quay.

◇ Gulf Oil Company N'Sano Well Platform A. Transportation analysis of jacket and deck structures.

◇ Ocean Clipper conversion. Motions analysis to a Drillship with dynamic position equipment.

◇ Chevron's Main Pass 313B jacket. Upend analysis.

◇ Chevron GENESIS spar. Stability analysis.

◇ Elf Virgo jacket. Launch analysis.

1989 - 1993 Research Intern, Mobil Research and Development Corporation, Dallas, Texas

Projects included extensive use of OSCAR II (Ocean System Computer Analysis Routines II) for barge, tanker, and semi-submersible motion analyses. Programming of in-house software included: creating a software package (VLCC Load Predictions) to predict wind and current loads on very large crude carrier (VLCCs). The software incorporated data from the 1977 OCIMF (Oil Company International Marine Forum) report. Also enhanced tension leg platform program (TLP-SIZE) by adding algorithms to determine the size of a TLP based on specified water depth and environmental conditions and assessed the accuracy of VESDYN, a vessel dynamics software package.

LANGUAGES

Fluent in Spanish