

SCIENCE & ENGINEERING TECHNOLOGY DEVELOPMENT

DUNS NUMBER: 136915241

INCORPERATION DATE: 08/2003

CAGE CODE: 7LYR4

NAICS CODES:

PSC CODES:

AJ12 AJ11 AG11 AG12

CONTACT INFORMATION:

Mark Marsalis

President & CEO Cell: (346)-254-7891 Fax: (833)-262-8945 Email: info@marsalistechinc.com Address: PO BOX 2448 Cypress, TX 77410 Website: www.marsalistechinc.com

CORE COMPETENCIES

Marsalis Technologies Inc. (MTI) is a small minority owned and operated science and engineering development firm based in Houston, Texas.

Mark Marsalis President/CEO and founder of MTI started the company in August of 2003 for purpose of research and development in the areas of robotics and aviation (with products pending release in late 2024 to early 2025). Mr. Marsalis has over 30 years of professional experience in the areas of science and engineering with degrees in both Applied Physics and Mathematics. He has extensive project management experience, accompanied with prototype development expertise in mechanical, control/instrumentation, electrical/electronic and civil engineering systems. The corporate structure of Marsalis Technologies Inc. allows Mr. Marsalis to fulfill his responsibilities as President and CEO while serving as Chief Technical Consultant.

As of January of 2015, MTI offers development support services to private and government sectors of business in the areas of Science, Engineering, Drafting & Design, and Product testing. Through the support of its leadership team, MTI has a broad range of experience in product development and implementation.

DIFFERENTIATORS

- We're Flexible; we adjust to your needs without compromising safety, quality, or schedule.
- We speak many languages; in the areas of:
 - 1. <u>SCIENCE</u> Data Analysis (Predictive, Prescriptive, Descriptive, Inferential, Exploratory and Diagnostic)
 - <u>ENGINEERING</u> Research, Design Requirements, Feasibility, Conceptualization, Preliminary Design, Detailed Design (FEA, CFD, RCFA, & FMEA) and Production Planning
 - 3. <u>DRAFTING and DESIGN</u> CAD Design and Drafting, GD&T, Tolerance Analysis, and Reverse Engineering
 - 4. <u>PRODUCT TESTING</u> Factory Acceptance Testing (FAT), Extended Factory Acceptance Testing (EFAT), Site Receive Testing (SRT) and Site Integration Testing (SIT)
- We take responsibility; your needs are our needs, in principle and in writing.
- We adapt; we reinvent the wheel when necessary.
- We grow; we keep up and adopt the latest technology to offer the best service possible.



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CAPABILITY LEVEL

PRIME CONTRACTOR

Total Project Budget Total Project Duration Percentage of Scope

SUB-CONTRACTOR

Total Project Budget Total Project Duration Percentage of Scope up to 10 M up to 5 years 100%

greater than 10 M up to 10 years 1% to 25%

MTI's Prime and Subcontractor capabilities can be modified to accommodate a variety of project scenarios. The information in this section is to be considered as general estimates of our capabilities.

EXPERIENCE LEVEL

SCIENCE Data Analytics

ENGINEERING

Research & Development Design Requirements Feasibility Study Conceptualization Preliminary Design Detailed Design (FEA, CFD, RCFA, & FMEA) Production Planning

DRAFTING and DESIGN

CAD Design and Drafting (Solidworks) Geometric Dimensioning and Tolerance (GD&T) Tolerance Analysis Reverse Engineering

PRODUCT TESTING

Factory Acceptance Testing (FAT) Extended Factory Acceptance Testing (EFAT) Site Receive Testing (SRT) Site Integration Testing (SIT) 30+ yrs. detailed exp. 30+ yrs. detailed exp.

10 yrs. detailed exp.

30+ yrs. detailed exp.30+ yrs. detailed exp.30+ yrs. detailed exp.20+ yrs. detailed exp.

30+ yrs. detailed exp. 30+ yrs. detailed exp. 30+ yrs. detailed exp. 30+ yrs. detailed exp.



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DUNS NUMBER: 136915241	PROJECT EXPERIENCE
	MARSALIS TECHNOLOGIES INC. EXPERIENCE
INCORPERATION DATE: 08/2003	 Green Palm Offshore LLC Topside High Integrity Pressure Protection System proposal
CAGE CODE: 7LYR4	 Anadarko Petroleum Corporation (GOM) Shenandoah Field Development Project Conceptual Design Engineering Consultant
NAICS CODES: 213112 541330 541380 541713 541715	 Ocean Flo International LLC Subsea High Integrity Pressure Protection System (HIPPS)
	 Confidential Clients Data Analysis for operational process improvement
	 Confidential Clients Oil and Gas Development Front End Engineering Design (FEED) Studies
PSC CODES: AJ12 AJ11 AG11 AG12	 Confidential Clients Layers of Protection Analysis (LOPA) for Oil and Gas Field Development
	 Confidential Clients Low Voltage Communication System troubleshooting and Installation
	 Confidential Clients HAZOP Study Facilitations
CONTACT INFORMATION:	 Confidential Clients Safety Integrity Level (SIL) Studies Safety System Products
Mark Marsalis President & CEO Cell: (346)-254-7891 Fax: (833)-262-8945 Email:	 Confidential Clients Finite Element Analysis (FEA) Supporting Product Failures
	 Confidential Clients Failure Mode and Effects Analysis (FMEA) Studies
	 Confidential Clients Failure Mode Effects and Criticality Analysis (FMECA) Studies
info@marsalistechinc.com Address: PO BOX 2448	 Confidential Clients Finite Element Analysis (FEA) Supporting Product Design
Cypress, TX 77410 Website:	 Confidential Clients Root Cause Failure Analysis (RCFA) for structural components used in test fixtures.
www.marsalistechinc.com	Canfidantial Clients Computational Eluid Demonias (CED) Suggesting

- Confidential Clients Computational Fluid Dynamics (CFD) Supporting Product Design
- Confidential Clients Data Analytics to Optimize Manufacturing Processes
- Confidential Clients Data Analytics to Support Machine Learning

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PRESIDENT & CEO PERSONAL EXPERIENCE

- Hess Corporation Gulf of Mexico (GOM) Stampede Project Field Development EPCI Bid Proposal Manager
- Anadarko Petroleum Corporation Mozambique Africa LNG Project EPCI Field Development Bid engineering management
- Exxon Mobil Corporation Gulf of Mexico (GOM) Julia Project Field Development engineering staff support
- Chevron Corporation Gulf of Mexico (GOM) Jack/St. Malo Project Field Development engineering staff support
- INPEX Corporation Australia Ichthys LNG Project Field Development engineering staff support
- Technical support and project management for the BP Gulf of Mexico (GOM) Atlantis Field Subsea Separator Well Containment System. Responsible for third party equipment design review, testing, and validation. Developed the Subsea Separator Well Containment System Factory Acceptance Test (FAT) procedure; and Subsea Separator Well Containment System Site Integration Test (SIT) procedure.
- Engineering review and quality evaluation for the BP Gulf of Mexico (GOM) Pompano Field platform Hydraulic Pumping Unit (HPU).
 Developed the Hydraulic Pumping Unit (HPU) Decision Support Package (DSP).
- Technical support and project management for Total E & P UK Limited Islay North Sea Field Topside and Subsea controls system. Responsible for third party equipment design review, testing, and validation. The equipment scope includes the subsea manifold structure and piping; subsea control modules; subsea communications routing module; and the High Integrity Pressure Protection System (HIPPS). Developed the technical review of project scope of work; and HIPPS technical assessment, testing, and validation report.
- Technical support and project management for the Helix Energy Solutions Group Topside MCS software upgrades on the Gulf of Mexico (GOM) Boris Field Floating Production Storage and Offloading (FPSO) Helix Produce 1. Responsible for monitoring of MCS software upgrades, repairs and testing.
- Technical support and project management for the Anadarko Petroleum Corporation Topside and Subsea controls system on the Gulf of Mexico (GOM) assets. The GOM assets covered under this scope work are Anadarko Calisto Field; Anadarko Caesar Tonga Field; Anadarko Independent Hub Field; and Anadarko Mawson Field. Responsible for third party equipment testing, validation & reliability.

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PRESIDENT & CEO PERSONAL EXPERIENCE CONTIUED

- Developed the Subsea Control Systems technical manufacturing, testing and product design audit report; and Subsea Control Module (SCM) product line equipment design and reliability assessment Report for the Anadarko Petroleum Corporation.
- Technical support and project management for the Anadarko Petroleum Corporation proposed the Gulf of Mexico (GOM) Lucius Field. Responsible for monitoring third party offshore soil boring testing activities and result validation. Developed soil boring result validation report.
- Technical support and project management for the Noble Energy Corporation Gulf of Mexico (GOM) Raton South Field Subsea High Integrity Pressure Protection Systems (HIPPS) engineering proposal. Responsible for the HIPPS design engineering review with vendors. Developed the High Integrity Pressure Protection Systems (HIPPS) Function Design Specification (FDS); and High Integrity Pressure Protection Systems (HIPPS) Front End Engineering Design (FEED) study assessment.
- Gulf of Mexico (GOM) Marlin and Atlantis Topside and Subsea controls systems technical support and project management
- Gulf of Mexico (GOM) Atlantis Field Steel Flying Lead (SFL) Subsea Flushing and Abandonment procedure
- Gulf of Mexico (GOM) Marlin Electrical Flying Lead (EFL) replacement Decision Support Package (DSP)
- Gulf of Mexico (GOM) Marlin Variable Speed Drive (VSD) Building Decommissioning Decision Support Package (DSP); and Variable Speed Drive (VSD) Subsea Pump Decommissioning Decision Support Package (DSP).
- Technical support and project management for the BP Exploration & Production Inc. Vessel Fluid Transfer Emergency Flowline Release System. Responsible for third party equipment design review, testing, and validation.
- Developed the Vessel Fluid Transfer System Function Design Specification (FDS); and System Failure Mode, Effects and Criticality Analysis (FMECA) report with DNV for the BP Exploration & Production Inc.
- Total SE Jura Gas and Condensate Field engineering design team (North Sea)
- Cirrus Energy M1-A Gas Field engineering design team (Netherlands)



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DUNS NUMBER: 136915241	PRESIDENT & CEO PERSONAL EXPERIENCE CONTIUED
INCORPERATION DATE: 08/2003	 Chevron High Integrity Pressure Protection System (HIPPS) Proposal (Subsea Manifold, SCM, and Valves).
	 Stewart & Stevenson 687kw Output Generator driven by 12 Cylinder Diesel Engine 800 hp product design and delivery
CAGE CODE: 7LYR4	 Stewart & Stevenson 727kw Output Generator driven by 16 Cylinder Diesel Engine 1,000 hp product design and delivery
NAICS CODES: 213112	 Stewart & Stevenson 987kw Output Generator driven by 12 Cylinder Diesel Engine 1,500 hp product design and delivery
541330 541380	 Stewart & Stevenson 3,581kw Output Generator driven by 20 Cylinder Diesel engine 5,000 hp product design and delivery
541713 541715	 Stewart & Stevenson 2,865kw Output Generator driven by 16 Cylinder Diesel engine 4,000 hp product design and delivery
PSC CODES: AJ12	 Stewart & Stevenson 20 Cylinder EMD Diesel Engine 5,000 hp, and 3,581kw Output NOV Generator product design and delivery
AJ11 AG11 AG12	 Pernco Horizontal Surface Pumping System product design and delivery
	 Thyna Petroleum Services Horizontal Surface Pumping System product design and delivery
CONTACT INFORMATION: Mark Marsalis	 Devon Energy Services Horizontal Surface Pumping System product design and delivery
President & CEO Cell:	 Anadarko Brown Cow Disposal Services Horizontal Surface Pumping System product design and delivery
(346)-254-7891 Fax: (833)-262-8945	 EnCana Oil and Gas Horizontal Surface Pumping System product design and delivery
Email: info@marsalistechinc.com Address: PO BOX 2448 Cypress, TX 77410 Website: www.marsalistechinc.com	 Berkine Sonatrach-Anadarko Horizontal Surface Pumping System product design and delivery
	 Ram Energy Horizontal Surface Pumping System product design and delivery
	 OSCA Inc. (Acquired by BJ Services Company May 2002) Half Indexing Mule Shoe Product Line design and delivery
	 OSCA Inc. (Acquired by BJ Services Company May 2002) Oil Well Isolation Back check Valve Product Line design and delivery
	 OSCA Inc. (Acquired by BJ Services Company May 2002) Recloseable Radial Valve Product Line design and delivery



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DUNS NUMBER: 136915241	PRESIDENT & CEO PERSONAL EXPERIENCE CONTIUED
INCORPERATION DATE: 08/2003	 OSCA Inc. (Acquired by BJ Services Company May 2002) Recloseable Pressure Actuated Circulation Valve Product Line design and delivery
	 ESPA Corp S-0056-027-2 East Water Treatment Plant Expansion and Improvements design team
CAGE CODE: 7LYR4	 DWS-807 Asbestos Abatement for DWSD (Detroit Water and Sewerage Department) Facilities.
NAICS CODES: 213112	 DWS-813 Schoolcraft Station Reservoir Rehabilitation for Detroit Water and Sewage Dept.
541330 541380 541713	 DWS-820 Franklin Pumping Station Improvements Rehabilitation for Detroit Water and Sewage Dept.
541715 BSC CODES:	 WW-529 Water Works Park Treatment Plant Screen House Rehabilitation for Detroit Water and Sewage Dept.
PSC CODES: AJ12 AJ11 AG11	 Detroit Lions Domed Stadium, Relocation of 48" Intermediate Pressure Transmission Water Main for Detroit Water and Sewage Dept.
AG12	• CS-1171-3 Phosphoric Acid Feed System at Springwells Treatment Plant for Detroit Water and Sewage Dept.
CONTACT INFORMATION:	• CS-1171-3 Phosphoric Acid Feed System at Water Works Park Treatment Plant for Detroit Water and Sewage Dept.
Mark Marsalis President & CEO Cell:	 DWS-713 Franklin Pumping Station Reservoir Rehabilitation for Detroit Water and Sewage Dept.
(346)-254-7891 Fax:	 DWS-714 Ford Road Reservoir Rehabilitation for Detroit Water and Sewage Dept.
(833)-262-8945 Email: info@marsalistechinc.com	 PC-682 Belle Isle Main Sewerage Pumping Station Improvements for Detroit Water and Sewage Dept.
Address: PO BOX 2448	 WW-516A Water Works Park Treatment Plant Boiler Replacement for Detroit Water and Sewage Dept.
Cypress, TX 77410 Website: www.marsalistechinc.com	• WW-520 Water Works Park Treatment Plant Rehabilitation of High Lift Transmission Piping for Detroit Water and Sewage Dept.
	• WW-523A Water Works Park Treatment Plant Crib House Superstructure Rehabilitation for Detroit Water and Sewage Dept.
	• WW-528 Water Works Park Treatment Plant Belle Isle Dike Rehabilitation for Detroit Water and Sewage Dept.
	 WW-518 Water Works Park Treatment Plant Auxiliary Low Lift Pump Station Rehabilitation for Detroit Water and Sewage Dept.



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PRESIDENT & CEO PERSONAL EXPERIENCE CONTIUED

- WW-519B Water Works Park Treatment Plant Emergency Repair of Filter Building Roof
- WW-523B Water Works Park Treatment Plant Improvement and Rehabilitation of Crib House Substructure, Surge Basins, and Emergency Intake for Detroit Water and Sewage Dept.
- WW-524A Water Works Park Treatment Plant Belle Isle Intake Building Rehabilitation for Detroit Water and Sewage Dept.
- WW-525 Water Works Park Treatment Plant Belle Isle Bridge Rehabilitation for Detroit Water and Sewage Dept.