



A Natural Fit for ACMA

According to Scott McClure, ACMA's involvement in the transportation of natural gas began in the late 1970s when the company was active in the development of the LNG fleet built by El Paso Marine. More recently, the company was contracted in 2000 by EnerSea Transport LLC to design their breakthrough VOTRANS™, a CNG marine transport vessel/storage system, adapt it for use in the marine marketplace and, ultimately, obtain its class approval in principle.

"Our assignment was focused on vessel concept development and containment support, as well as ship dimensions, hull design, auxiliary systems and powering requirements," recalls McClure. Along with cost estimation, the ACMA team performed intact/damage stability analyses, longitudinal strength analyses, motion analyses, scantling and midship section development, as well as lightship weights and vessel costing matrix. ACMA also participated in hazard identification and operational workshops.

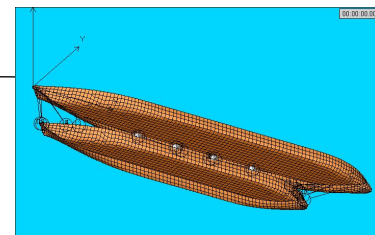
Today, the company continues to participate in HAZID and HAZOP workshops and expand its experience in ship design and storage issues. In the process of investigating

gas loading design issues, ACMA has also begun to develop an expertise in

LNG transportation re-gasification, loading/ off-loading and terminal issues.

"We anticipate a growing LNG market where we can expand our knowledge base in the areas of fleet and LNG market studies, vessel sizing and operation economics, vessel loading and off-loading issues, vessel moorings for terminal design and integrations, as well as safety and material handling," notes McClure. "We've already made a commitment to using a number of leading-edge, high-level tools for analysis, including AQWA, a software package used for motion analysis, as well as determining structure loads and engineering various complex marine operations."

Currently, ACMA is working on a floating re-gas terminal for a major foreign gas producer. The project includes not only ship design, load and off-load issues and re-gas interfaces, but also assistance in responding to hundreds of permit data needs.



AQWA software allows for advanced hydrodynamic modeling

ACMA's Darrel Harvey Chairs SNAME Session at 2006 OTC

With the untimely death of his good friend Greg Thory, ACMA Vice President Darrel Harvey agreed to take his place as the Chairperson for the SNAME OTC Session. His initial session was "Advances in Riser and Umbilical Technology." The session was held as a joint seminar with another technical society and enjoyed an excellent turn-out with some 250 in attendance.

"The 2007 session will focus on what the experts know about storms, particularly cyclones and hurricanes,"

says Harvey. "For example, one topic we may explore would be 'integrity asset management'. And, one of the questions we might pose could be, 'If it's prudent to spend \$10 million to withstand a 50-year storm, is it still prudent to spend \$100 million to withstand a 100-year storm?'" Harvey went on to note that SNAME might also host a session on the LNG pipeline subsea technologies that are available.



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From the Top

Over the past several months, we've had an opportunity to work on a number of interesting and challenging projects. Some of the most notable include:



- Moderc mooring foundation – design and analysis.
- Conoco/Phillips – numerous projects, including our current one that is retrofitting their IMO fleet with oily water separators.
- K-Sea ATB interface structure – analysis, develop shipyard quality drawings and specifications to be implemented by the yard.
- Southwest Marine dry-dock construction and certification.
- Jones Act tanker project review on behalf of the involved financial groups.

On every project, ACMA's team always demonstrates a high level technical ability. But, even more important in my opinion, is the fact that our team also brings practical shipyard experience. It's that unique capability that we call "going from paper to steel" that makes ACMA such a valuable asset to our clients and project partners.

Scott C. McClure
President

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Alan C. McClure Associates

Founded in 1975, Alan C. McClure Associates, Inc. (ACMA) is one of the industry's premier naval architecture and engineering firms. Headquartered in Houston, Texas, we've provided advanced design and engineering services to our international clientele in offshore exploration, production and marine transportation for over 30 years.



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ACMA Breaks Record Raising More Than \$12,000 for MS Research

ACMA's annual participation in this year's two-day MS 150 charity bike ride from Houston to Austin, Texas raised \$12,455 in pledges that will help fund vital multiple sclerosis research. This is a new high for the ACMA team!

ACMA's 2006 team, known as the ACMA Knots, included company riders Scott McClure, Joe Gibson, Michelle Hargrove and Dave Wilson. Family and friends who also rode for the ACMA team included Bobby Wilson, Greg Kelley, Donna and Duncan Oppenheim,

Steve Rosencrantz, Ken Jones and Mark Hargrove. Company

personnel on the

support crew included Dusty Hardin and Joe Dolder, and they were joined by Carol, Charlotte and Nathalie McClure, Tania Wilson, Riley and Myers Hargrove, Heather Peterkin, Linda Toll and Sue Kelley. Our thanks to all our dedicated volunteers!



(L to R) Riders: Joe Gibson, Scott McClure, Michelle Hargrove and Mark Hargrove

How Did ACMA Ever Manage Without Michelle Hargrove?

Even though the company has been operating for more than 30 years, almost half of its existence has been without Michelle Hargrove. That's hard to believe given the number of hats she wears every day.



Michelle Hargrove

As part of her responsibilities, Michelle handles accounts payable, accounts receivable, insurance, contract compliance, balancing the checkbook and human resources. In her spare time, she's even the official party planner (for those who attended ACMA's spectacular 25th Anniversary party, you can thank Michelle).

Michelle's career at ACMA began back in September of 1991. Michelle, with 1-year-old daughter Riley in tow, just happened to be working on a Saturday at an accounting firm down the hall from ACMA's offices. She also just happened to run into the company's founder, Alan McClure, who happened to ask Michelle if she knew anyone who might be able to take on the tasks his wife, Gloria, performed at ACMA while she took some time off for surgery. Michelle said she'd be interested and Alan offered her the job on the spot.

Gloria's surgery was successful and she decided not to return full time to ACMA. Michelle, on the other hand, stayed. Today, she holds the record as the firm's longest continuous employee.

During her tenure, Michelle has seen the ACMA offices and staff expand and contract during the "business-as-usual" ebb and flow that all naval architecture and engineering firms experience. One of the most memorable turning points in ACMA's history happened within a year of her arrival. The firm landed a large project with Reading & Bates and virtually the entire staff had to go on location, leaving Michelle as one of the skeleton crew left behind to manage the day-to-day operations of the office.

Recently, Michelle had the challenging task of managing the expansion of ACMA's office, where she directed the action from interior decorating to selecting new office furniture. Of course, she took it all in stride and managed to make it look easy – a talent Alan McClure recognized the day he met her 15 years ago.