

## Current Projects

**Helix Producer I** – ACMA has continued to provide engineering support to this Floating Production Unit (FPU), recently determining the impact of equipment and structural changes on the vessel’s lightship. Kelly Gray, the engineer of record, has provided on-going oversight for various modifications to support everything from equipment repair and replacement to increased productivity and functionality. A deadweight survey in association with the next drydocking is currently being planned for early 2019.



**Helix Producer I**

**TDI-Brooks International, Inc.** – ACMA just finished a job that entailed the installation of a “flooded” sonar array (gondola) below the keel of the research vessel GYRE. With this addition, the vessel had to be re-inclined, the stability re-examined and, finally, a new Trim & Stability Booklet developed. ACMA’s Andrés Chapa (P.E.) handled the job from its inception to the successful conclusion, while also providing guidance to the shipyard for the installation of the gondola.

**Freeport Launch** – “Regulatory Tonnage 101” was addressed by ACMA to allow a small inland launch that is used to carry deck cargo in support of the marine activities in the Freeport, Texas area, to operate legally. The challenge was to get the 40-foot launch under 15 GRT so that she would no longer be in the USCG “crosshairs”. An array of tonnage tricks was employed, including the addition of some non-tight tonnage frames and the rework of existing frames in the hull and fuel and water tanks. Ultimately, the additions were undertaken and when the vessel was surveyed again, it did, in fact, measure below 15 GRT.

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## Cleaning Up the Environment

With the MARPOL Annex VI and MEPC.259 (68) deadlines regarding SOx and NOx emissions on vessels coming into enforcement, ACMA has received several inquiries from vessel owners about retro-fitting exhaust scrubbers to their existing vessels. Though these investigations have been preliminary in nature, the intricacies of the requirements that

must be met have guided us into a variety of scrubber options, which will be dependent on placement. Data monitoring, recording and Urea storage are other issues that will also need to be addressed.

Once a scrubber has been selected, the general engineering starts.

*Continued on Page 3*



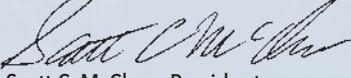
## From the Top



Although I'm typically not a person where the "glass is half empty, has a chip in it and, by the way, that's not my lipstick", I think you'll agree 2018 has been a rough year. That being said, ACMA has been able to come out of it stronger than we entered it and I believe 2019 will be better than 2018 due to the adjustments we've made.

My biggest concern is the growing void of knowledgeable, seasoned professionals throughout the marine industry due to tight budgets, fewer projects and early retirements. It's the same trend we witnessed during the downturn in the late 1980's and the debilitating effect that had on the next 10 to 15 years as our industry struggled to rebuild its base of experienced personnel.

To counter this effect at ACMA, we've made it our mission to retain seasoned, knowledgeable people with experience levels ranging from 10 to 40+ years. It's the commitment we made to our clients, regardless of project size, more than four decades ago and we have no intention of altering our course now or in the future.

  
Scott C. McClure, President

## Quark Expeditions: Polar Expedition Class Cruise Ship New Build Project



*Polar Expedition Class Cruise Ship*

ACMA has been involved with Quark Expeditions since December 2015 with the clear goal of building a new Four Star, 200-passenger Polar Ice Classed Expedition cruise ship.

This vessel incorporates many design aspects that are significantly different from other cruise ships. The overriding goal is to support the off-ship experience of the Polar Regions via extensive open decks accessible to passengers for viewing, zodiac excursion boats, helicopters, kayaks

and lectures by subject matter experts, while still delivering an exceptional cruise ship experience.

New Polar Class regulations and voluntary adherence to additional guidelines push the ship into unique design territory where extremely robust and redundant systems are the norm. ACMA has provided technical guidance to Quark and has participated in shipyard selection,

*Continued on Page 3*

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## **Cleaning Up the Environment** - *Continued from the cover*

Structural checks are needed to determine what structural modifications will be required to support the scrubber. Piping systems must be laid out and system checks completed. Weight changes to the vessel due to the added equipment and materials will need to be calculated so that a lightship adjustment can be made. With an engineering package developed and distributed to qualified contractors, bids are evaluated and then a yard is selected to carry out the work. All this is done with the vessel owner fully engaged and with the knowledge and approval of Class.

If this sounds like a lot of work...it is. With the “relatively” large number of vessels needing to be brought into compliance, and a small vendor resource for solutions, ACMA’s VP Darrel Harvey advises “Start early to avoid getting jammed up with equipment deliveries and delays for equipment installation.”

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## **Quark Expeditions: Polar Expedition Class Cruise Ship New Build Project** - *Continued from page 2*

contract negotiations, extensive design reviews and coordination with Class and Flag. A shipyard contract was signed with Brodosplit Shipyard in Split, Croatia in March 2018, with a contract delivery date of September 2020.

We are pleased to report that the engineering and equipment procurement phase for this new build project is on track and steel cutting will begin in January 2019. ACMA has had a large role in the engineering development and vendor selection and, having previously worked on projects from Croatia and Denmark, has also provided assistance in identifying key support staff from local resources. These local resources will augment the local Quark project team to ensure quality is maintained, fabrication remains on schedule and the overall key objective of an on time delivery is realized. While ACMA’s role will be somewhat reduced over the coming months, we will be involved in FATS, trials and other key milestones of the project, ultimately leading to delivery of the ship.

<https://www.travelandleisure.com/cruises/quark-expeditions-new-antarctica-cruise-ship>



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