December 2012

Substation-Curasub-Chapman Research

Volume 1, Issue 1

Before you lies Volume I, issue 1 of the Curasub-Chapman Research Centre (CCRC) Newsletter.
The very first newsletter that we intend to publish on a bi-monthly basis, bringing you the latest news about Substation, the Curasub and the Chapman and about the contribution our organizations are making in the world of marine sciences.
We hope you'll enjoy the information and pictures in this newsletter.
For any info you might want to add or questions you might have, feel free to contact us at research@substation-curacao.com.

The Curasub can take its 4 passengers down to 1,000 feet

First practice runs bringing the Curasub on board the Chapman

Having made the trip to the Dioro dock at Parera on the back of a large transport truck, the mini submarine Curasub recently made its first 'landing' on the aft deck of the RV Chapman, the vessel that will exclusively serve as a sub tender to the Curasub while also being able to accommodate both scientists as well as tourists on future trips and expeditions.
The first practice runs of bringing the 6.5 ton Curasub on board, setting it on its own small 'deck' on the port side of the Chapman, subsequently putting the custom made docking platform with its specially designed undercarriage in the water and then lifting the Curasub into the docking platform, were led by Curasub owner Adriaan 'Dutch' Schrier and witnessed by his business partner Rudy Pizziolo. Also present were several visiting Dutch scientists and other Substation acquaintances and business associates.
The workings of the 110 ton knuckle boom Fassi crane, that by now has become an intrinsic part of the 127 feet long Chapman, were highly appreciated by all spectators present on the ship. The crane is capable of launching and retrieving both the submarine as well as the docking platform from the back deck. The submarine represents less than 50% of the lifting capacity of the crane.

Our Product" booklet explains what we are all about

Explaining what all the different entities situated on the Curacao Public Aquarium property are all about, can be a very difficult task. There are so many activities taking place on the premises that the combined information might prove to be somewhat confusing to people who have yet to visit the park. So rather than always having to give a verbal presentation of the facts, we decided to put the most important details of our operation in print and produce a booklet about "Our Product".

The booklet provides the reader with beautiful pictures of the various companies and a summary of the service each of the companies offer to their guests.

Inside this issue:

Docking platform especially fitted for subtender Chapman

Just as was the case at Substation, the Chapman also had need of a docking platform, allowing Curasub guests to safely and comfortably enter and exit the submarine. Because having the submarine already in the water by the time guests finish their pre-dive briefing and enabling them to step on board by way of a platform eliminates the riskier operation of launching a manned submarine through the air via a crane.
While the submarine platform that floats in the Substation basin is permanently tied up at the dock, the platform at the Chapman has to be lifted on and off the ship each time the mini sub is deployed.
When building the new platform the fact that the platform would continually have to be winched over the side had to be taken into consideration. This meant that while the platform should be designed in such a fashion that it would be small enough so as to be easy maneuverable, the platform at the same time had to be equipped with all the features deemed necessary to provide additional safety to the submarine while on the surface. Once the platform is in the water the steel undercarriage automatically drops down to form a berthing cradle for the Curasub.

The big Fassi crane easily lifts the docking platform from the ship into the water.

Plans are for the Chapman to also be outfitted with two 20 ft. containers, to be placed on the vessel when expeditions are being carried out. The containers will hold small air conditioned units with laboratory equipment both “wet” and “dry”, in order to stabilize collected marine specimens and one container will have a decompression chamber for emergency use in case of diving accidents .

Finishing the lounge is just a manner of time

Finishing the lounge on board the Chapman is just a matter of time.
Missing are just the chairs facing the bolted down tables, the large television screens that need to be hung on at least two of the lounge walls and a dozen pictures and paintings to brighten up the place.
As the lounge will not only be a place to relax in after dark during expeditions, but it will also serve as dining room on those days that it’s more comfortable to eat inside instead of on deck, we do however need to acquire the daily necessities that should be found in a dining area. Like of course plates and eating utensils, but also commodities such as a coffee machine, a toaster oven and a microwave. What we do already have are couches on both the starboard as well as the port side. Ready to fall asleep on in case we’re on an expedition and all the cabins have already been taken.

Precision work gets the job done

Driving a crane is not a job to be underestimated. It takes skill and it takes training. A crane operator, sometimes known as an operating engineer, uses heavy-duty construction machinery to move objects from one place to another. The exact duties of a crane operator vary depending on the industry of employment. In the construction trade, a crane operator shifts large amounts of soil and construction material, and uses a wrecking ball to demolish derelict buildings.
In the shipping industry, crane operators move large freight containers on and off docked ships, while in the Substation industry it all comes down to handling the submarine. A task that definitely needs precision and a steady hand to get work done.

Sub pilot Bruce Brandt assisting professor Van Weering in getting on board the Curasub.

Distinguished visitors explore the deep reefs

Substation Curacao and the Chapman keep attracting the attention of distinguished scientists and other visitors who welcome the opportunity to join the Curasub crew on a dive to the beautiful deep reefs located in front of the Curacao Sea Aquarium.
Among these many visitors was professor dr. Tjeerd van Weering (Sc. Em.), advisor to the Royal NIOZ, the Dutch institute for deep sea exploration and research. On this visit professor Van Weering was accompanied by dr. Johan Stapel, a marine ecologist at IMARES, the Dutch institute for marine resources and ecosystem studies.

The two visitors were on their way to the Windward island St. Eustatius to aid in the set up of a multifunctional knowledge centre, but opted to make a stop in Curacao so as to be able to participate in a sub dive and get a tour on board the Chapman.

The building and outfitting of the knowledge centre will be financed with funds from the Dutch Department of Education, Culture and Science that has reserved Expectations are for the knowledge centre to be operational in the second half of 2013.

Dr. Van Stapel ready for his first experience on board the Curasub.

The ship's galley is really beginning to take shape

The galley is the compartment of a ship, train or aircraft where food is cooked and prepared. It can also refer to a land based kitchen on a naval base or a particular formed household kitchen.
A galley is the kitchen aboard a vessel, usually laid out in an efficient typical style with longitudinal units and overhead cabinets. This makes the best use of the usually limited space aboard ships. It also caters for the rolling and heaving nature of ships, making them more resistant to the effects of the movement of the ship. For this reason galley stoves are often built in such a manner that the liquid in pans does not spill out.

The stoves are also commonly equipped with bars, preventing the cook from falling against the hot stove.
A small kitchen on deck was called a caboose or camboose, originating from the Dutch: *kombuis* which is still in use today. In English it is a defunct term used only for a cooking area that is abovedecks.

As in most ships, the Chapman's galley will be executed in stainless steel.

The upper deck contains three cabins for the crew. Each of these cabins can accommodate a maximum of three crew members. Apart from a modern sink with warm and cold running water, the cabins provide ample storage space.

Bridge getting ready to receive the captain, crew and passengers

Work on the bridge of the Chapman is well underway.

Local experts are currently working very hard in the ship's command center, setting up all the equipment necessary for safely and responsibly setting out to sea. The experts are being assisted by technicians from mostly The Netherlands, who on a regular basis travel to Curacao to lend a hand when very complicated navigational and other instruments have to be installed.

The bridge of a ship is usually off limits to passengers. But in the case of the Chapman, Both the passengers and scientists and handling in certain instances will be welcome to join the Captain and First Mate on the bridge.

December 2012

SUBSTATION CURAÇAO

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Why is a submarine classified as a boat and not as a ship?

Answer:

The Navy considers all vessels ships; however, submarines are historically referred to as boats due to the nature of the first submarines.
A boat in Naval terminology is a vessel that is launched or tended from a larger ship.
The earliest submarines required support vessels to maintain and launch them, hence they were termed boats.

Today, though only DSRV's and ROV's require a support vessel for operations, independent submarines are still referred to as boats not only due to the historical term, but the fact that they still require support from a Submarine Tender while in homeport for repairs and maintenance the crew cannot perform.

The Chapman is getting ready for its shakedown cruise

The 127 feet long Chapman was built and designed by Bender Shipbuilding in Mobile, Alabama, and launched in December 1979.

The ship for 25 years served in the Bering Sea and the Mississippi-region.

After being decommissioned it ended up in Puerto Rico where over a period of almost six years hundreds of professors and students got on board to participate in all kinds of marine research.

Sadly enough the ship was not looked after for the last number of years, lost its ABS class rating and so became a non-functioning ship.

In 2008 however the Chapman was purchased by Substation Curacao to be completely refurbished so as to be able to re-enter the world of marine research. This time the ship was not actually meant to resume its role as a research vessel, but was destined to become a submarine tender for Substation's mini-submarine 'Curasub' and to also serve as a support vessel for scientists and research-oriented and adventure loving travelers.

The Chapman has by now been almost totally restored with a complete rebuild of all systems. Over three million dollars have already been invested and the ship is now presently in its last phase of completion. The expected time of the first shakedown cruise is January 2013.

The planning is to have the Chapman ready to officially start operating with the Curasub in tourism and science in the first Quarter of 2013.