



The Binnacle

July 2023

Volume 45 Issue 7

Ken Lockley
In the workshop on Charles Cate 4
And
A visit to Campbell River
Maritime Museum



Edward White on
Two really weird ships?



Mike Claxton on
Point Hope Shipyard Open Day.



From The Bridge

Hello Members,
Well summer has arrived and the weather has been fantastic, although my grass is suffering! We had a wonderful time at Point Hope Shipyard Open House, the weather was perfect and there were a good selection of boats present (see pictures on the Facebook site).

This year we will not be participating in the Saanich Fair, there was lack of interest in volunteering so we are taking a break from it this year and will revisit it next year.

It was good to see Mike Creasy at the pond on Sunday, he has been having some health issues that have kept him away from the pond. If you see Mike out and about say hi.

Keep working on your \$20 Boat Build, we will be announcing the date soon.

I am at sea for the next two weeks so Vice President Mike Claxton will be running the General Meeting this month.

Get out and enjoy the weather and happy boating.

David Nelson
President.



2023 Executive Committee

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On the Radar!

The Great Twenty Dollar Boat Build is On!

So get to work if you are not already.
Date to be announced Soon.



Regular General Meetings
2 nd . Thursday, 7:30 pm. St Peter's Anglican Church Hall,
St. Peter's road, Lakehill.
Next meeting 13th July , on Zoom.



Every Sunday Morning, 9am-ish to 11:30-ish at Harrison
Model Yacht Pond, Dallas road.



The Langford Lake Navy.
Wednesday Mornings 9 :30 ish, Leigh Rd. At Tillicum.

Point Hope Open House

June 18 – Father's Day

VMSS was invited again to set up our pond and display our boats to the visitors coming to The Point Hope Open House held on Father's Day, June 18. I'm not sure how many people attended this year – probably a good guess 3500 – 4500 spent the afternoon walking through and viewing the displays.

We had our pond there – picked up the frame from Bob Rainsford on Friday and we purchased a new tarp. Dave Nelson, Bill Andrews and I met at Point Hope on Saturday morning and dropped the frame and tarp off ready to assemble Sunday morning. We decided to add a 2 x4 on edge to the frame to give it a little more depth.

Sunday morning Dave picked up Calvin's trailer and brought the log barge – then he added the extra height before we put the frame together. Cory, Ron Burchett and Sue arrived and we set up tents to protect everyone from the sun.

Christina Morrison joined us and set up her tent displaying a number of her prints of Tugs on the West Coast – her work attracted quite a bit of interest and I think it was a good move.

Dave looked after the operation of the self dumping log barge – did attract a lot of interest and questions on how it worked. This was the barge built by Norm Milne from Kamloops.

We ran a few boats in the pond – lots of interest from all age groups, Times Colonist had a couple of 'letters to the editor' thanking Point Hope for having the pond and boats on display.

We packed up and this time waited until everything was clear of the area before letting the water go out of the pond. Only two of us with wet feet this year!

Thanks to the members who came out both days – we would have liked to have seen more members come out. You can view photos on the Clubs Facebook page.

We hope to be invited back next year.

Mike Claxton.

IN THE WORKSHOP JULY 2023

Ken Lockley

This month's activity has stemmed around building the hull of the picture you see to the right. Rick G. requested, would I build the hull of the Charles Cates #4. This tug is mostly used at present at Ogden Point helping the Cruise Ships docking. It's docked with the Pilot boats inside the harbour. Just 50 ft in length and a hard chine type of construction. Very different for me after building so many wood strip hulls. The next few pictures were taken during construction.



Picture credit to the Tug Tugs Tugs Blog

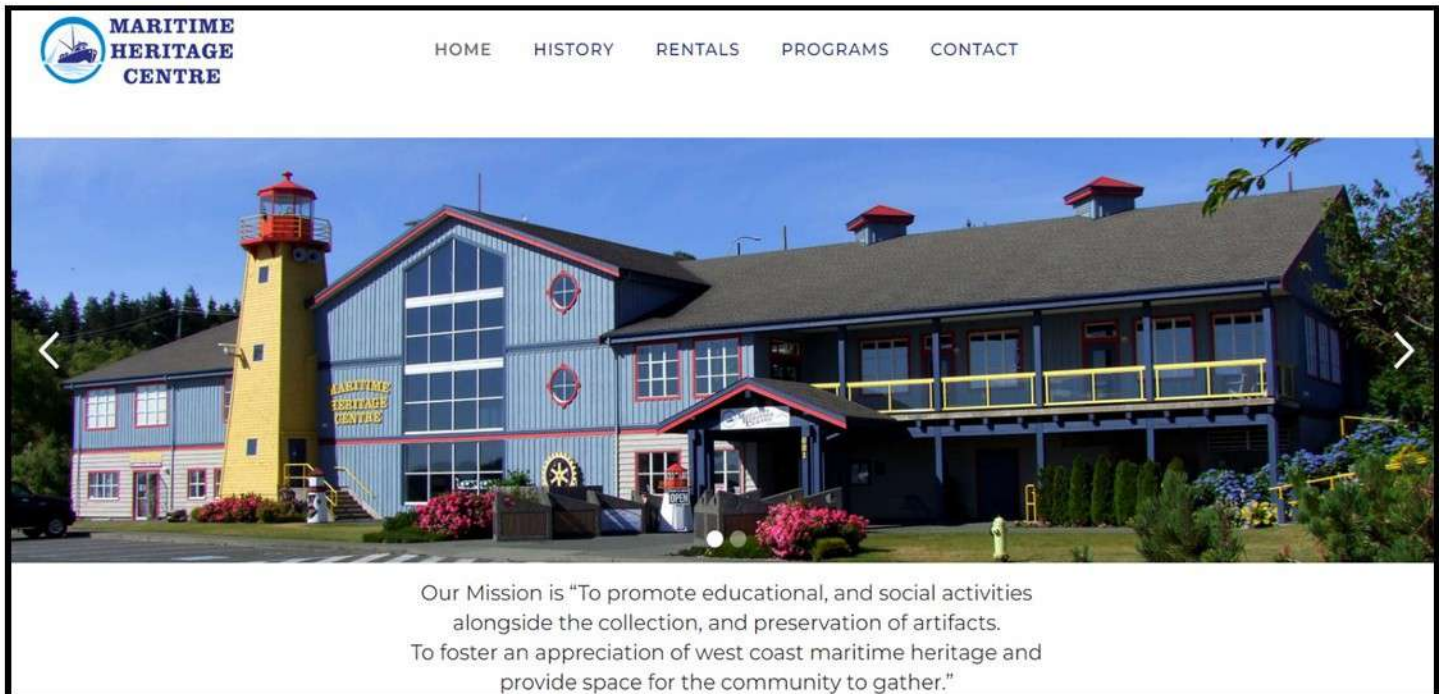
Charles H. Cates #4 off Powell River.

Cates Towing

CATES TOWING, formally C.H. Cates and Sons Ltd, is a major tugboat company founded on the waterfront in [N VANCOUVER](#) by Charles Henry Cates (1859-1938). Cates arrived in [VANCOUVER](#) during the 1880s and built a wharf on the north shore of [BURRARD INLET](#). He used his fleet of tugboats to haul stone from quarries at [GIBSONS](#) and [SQUAMISH](#). After Vancouver was destroyed by fire in 1886, Cates's tugboats transported the construction materials needed to rebuild the city. He incorporated the tug company...

If you are already registered on KnowBC, [login now](#) to get access to the full article.

The Washington Group that own "Seaspan" bought out Cates Towing Ltd. in the 1980's. This combined with it's "Seaspan" operation made the company the largest Tug boat operator in BC and especially in Vancouver Harbour areas. Seaspan has the contract for Ogden Point Cruise Ship Terminal and that's why Charles H. Cates #4, pictured above, is there.



MARITIME HERITAGE CENTRE

HOME HISTORY RENTALS PROGRAMS CONTACT

Our Mission is "To promote educational, and social activities alongside the collection, and preservation of artifacts. To foster an appreciation of west coast maritime heritage and provide space for the community to gather."

On a recent trip up Island we stopped at the Museum at the docks in Campbell River. It's about seven years since we last saw the facility and there are some additional things to see and learn about. We had a very interesting docent who had been a Commercial Fisherman in his working life. He was really well informed and made our visit very interesting. We also had the chance to view four tugs built by Harold Berrow. This mans ability for detail is just absolutely excellent. I have included several pictures here for you to see.

The Tug "Haro" to the right. Great detail with many small custom made parts. Unfortunately these pictures are taken through a glass cases.



The last time we visited this facility I met Harold and we had a great discussion on his models. He uses aged Yellow Cedar for almost all his small detail. I missed him on this visit.

This is a great picture of Rick's project boat, taken from "Ship Nostalgia" Website. The vessel is 50 ft. in length with 16 ft beam. Our replica is 1/2" to the foot or 25" in length with a 8" beam. Designed by Robert Allen Ltd. in 1971 . The plans I am using came from that firm.



Robert Allen Ltd. is a consortium of marine architects and engineers based in Vancouver . The firm is a multi-generation company started almost 100 years ago with the first Robert Allen.

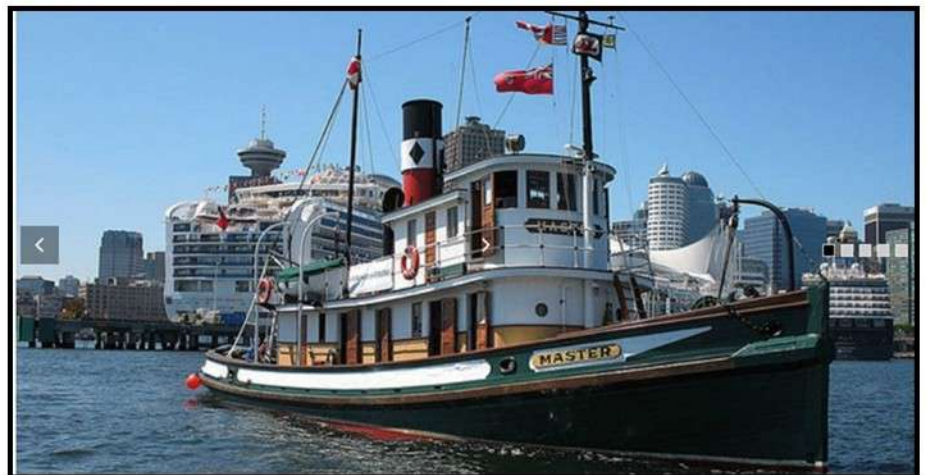
Son and Grandsons continued to establish maybe one of the most trusted names in the small craft work boat design on our coast. I recently read that there are now over 1000 tugs operating around the world that are Robert Allen designs. A tremendous credit to the firm. The firm has been very supportive to the SS Master Society which maintains a 1920's Steam driven tug we frequently see at Classic Boats Shows and special harbour events.

The firm also makes blueprints available to model builders of past and outdated designs. The fee for this service becomes a donation to the SS Master Society. That's how Rick G. acquired the plans I am currently using. A great resource for modeler's.

My current build is the second hull I have built using plans from out dated Robert Allen designs. It's a good experience !!!

To the right, SS Master, a steam tug that is now 101 years old. Robert Allen and also Seaspan Ltd. have been great at helping to keep the ship operational.

More information at SS Master Society.



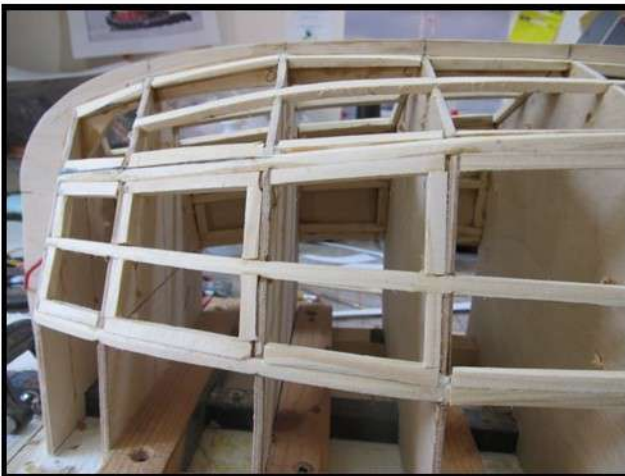
Some random shots of Charles H. Cates under construction . This is Rick Gonders project which I am helping him with a hull to start. Hard chine and plywood construction.

There's always a first time for everything. This tug designed by Robert Allen Ltd. is a 1972 design using hard chine construction. The boat is only 50 ft. in length and I suspect that's why 50 years ago they elected to use this type of construction. I have made model and full size sailboats using this type of hull construction many years ago.

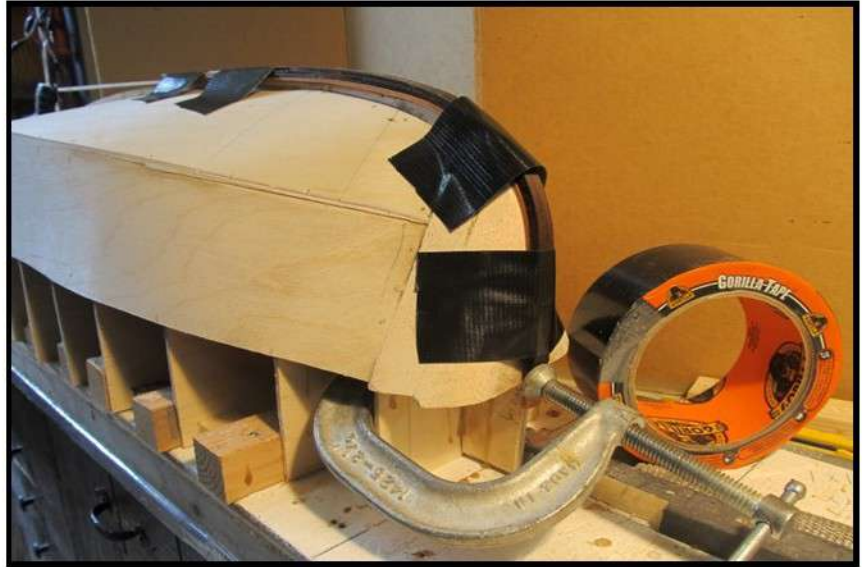
Can any of you remember the Plywood "Thunderbird" fleets built back in the 1950-70"s . Great projects at the time.



Pictures taken May 21/23



More on tools and helpers. To the right you can see me laminating four pieces of hardwood around the stem. When comes to clamping, anything that works becomes a new tool in the workshop. The laminated pieces you see are four layers of Maple and Walnut soaked over night and bent around the stem to dry and be glue up later for final installation.



Year ago Black and Decker came out the "Shop Mate" and what a great idea it was. So much so that there are about six names on the net showing their versions. Sometime in the last 20 years Canadian Tire came out with their "Job Mate". It's the cheapest and the smallest which suited my needs. You can see how I use it to hold my working model stand. It is so much easier to have the model secure while installing deck beams or power supply items .



Two Different Ships. The Flip Ship and the Ramform Titan.

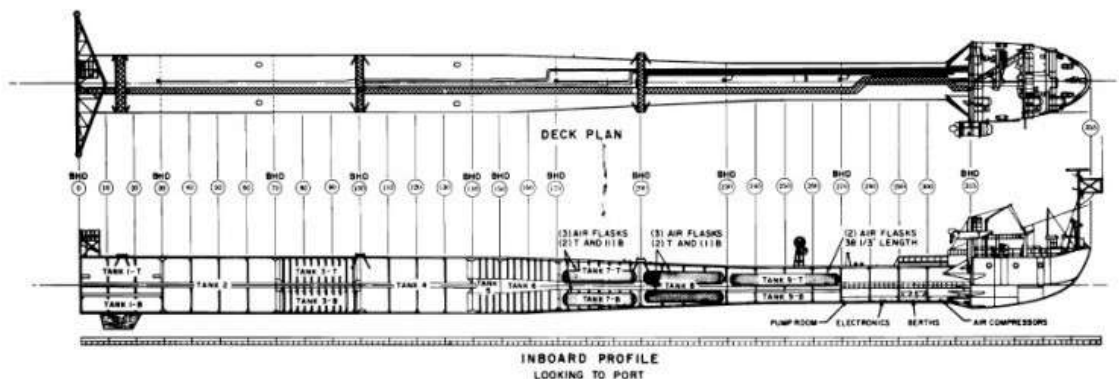
Discoveries in the sea demand different tackle. Sometimes even submarines won't cut it. Here are two amazingly different surface ships, with two different approaches.

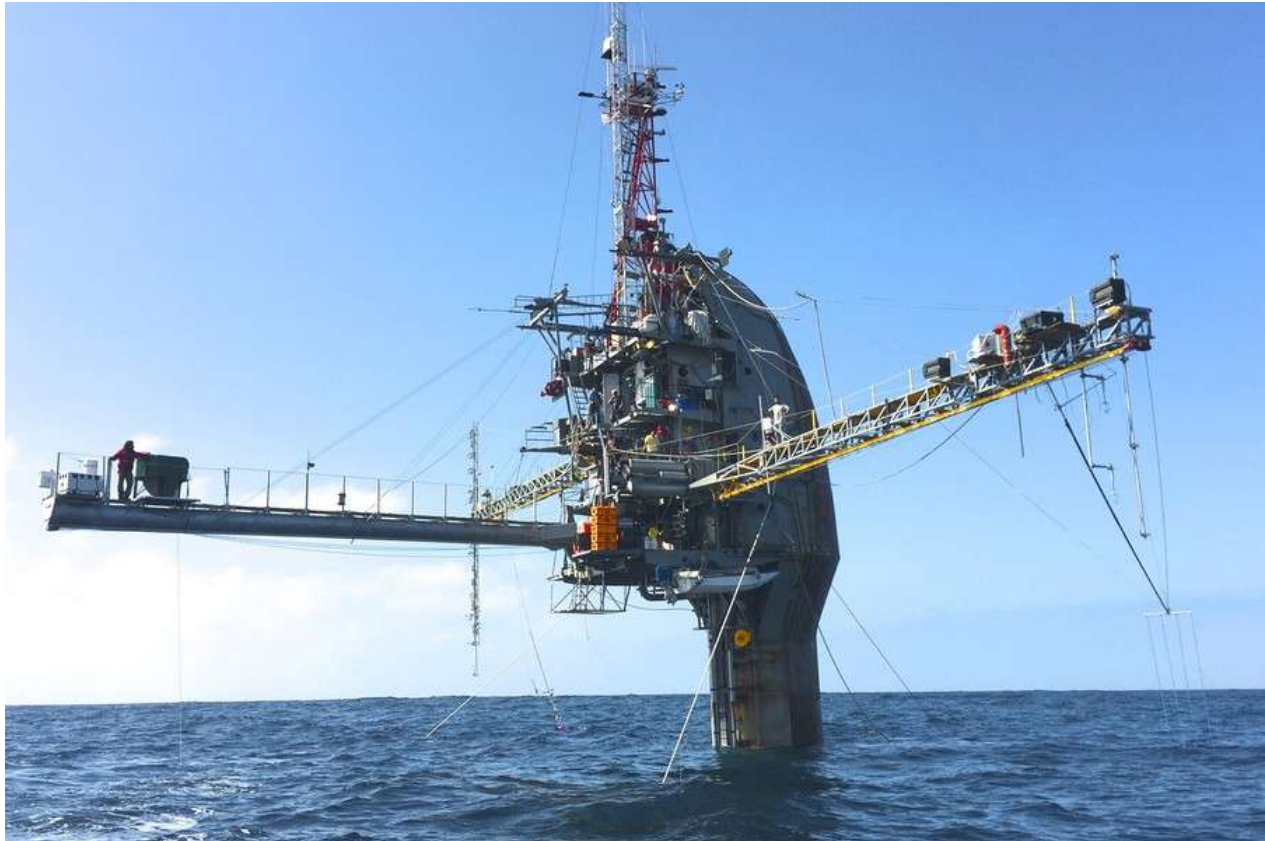
Well, the first isn't really a ship at all, it's more like a barge, because it has to be towed, but it isn't. It's a bit like a spar buoy, but it's a lot bigger, and it does a trick that no buoy can accomplish.

It's owned by the U.S. Office of Naval Research, and operated by Scripps Institution of Oceanography. It was built in 1962 by Gunderson Brothers in Portland. The idea was to make a floating research platform that would be almost unaffected by waves, on the same principle as a spar buoy. That is, that the cross-sectional area close to the sea's surface would be very small by comparison with the overall bulk of the "ship". So the change in buoyancy due to wave action would be very small, and therefore the movement of the platform also very small and slow.

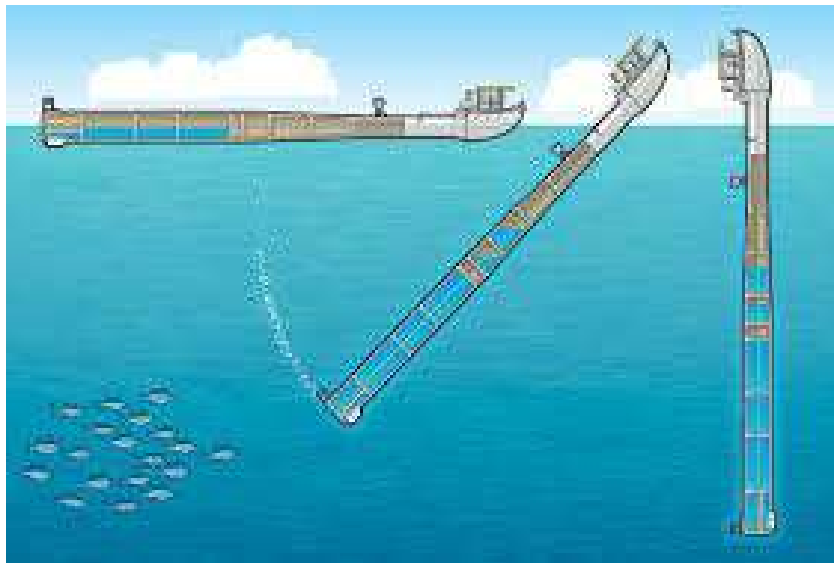


Here's a picture of the platform rigged for towing on the surface. It's 355 feet long with a gross tonnage of 700 tons. The back 300 feet is largely ballast tanks that can be filled with seawater, so that the stern sinks and the bow rises till the whole platform tilts to the vertical.





Here's the bow, vertical, sticking up above the waterline. The beam of that bow section is 26 feet, so you can see that the "pipe" section at the waterline is only around ten feet in diameter.



The next picture is a drawing of how the platform is "flipped" into position. Once it is there, any sensors placed right at the "stern" are 300 feet below the water surface, and so well below the disturbances caused by any wave action. It's quiet down there, so the platform can "listen" to very slight noises like marine life, or noise generated in the sea bed. More than that, the platform has three gantries at least 50 feet long that can be extended from the "bow" section into a horizontal position. A sensor can be strung from these to almost any depth, and would also share the lack of movement of the platform.

And that's what it's for. To place sensors down below surface noise and disturbance where they can be most effective, and to learn what they can tell us. But it also can study the surface disturbance itself, since it is close to static. Over its 50 plus operating years it has been deployed free drifting and anchored in ocean depths from 400 feet to 15 thousand. Its sensors and analysis capabilities have been continuously upgraded with the explosion of electronic capability, and it has been extensively rebuilt to extend its missions for many years to come.

A fun part of the design is the detail that lets the 5 crew and 11 scientists live and operate in the two different positions as the walls become floors, ceilings turn into walls, and stairs and gantries go into M C Escher modes. To be aboard as a flip takes place must be an amazing experience. There's only one of these!



The second extraordinary ship is actually a class of 4 ships operated by the Norwegian company Petroleum Geoservices. They are the Ramform Titan, the Ramform Atlas, the Ramform Hyperion, and the Ramform Tethys. They are 104 metres long and, at the stern, 70 metres wide. Yes, that's 70 metres, the widest ship in the world. From above, their shape reminds me of the British Avro Vulcan nuclear bomber. Here's the comparison.



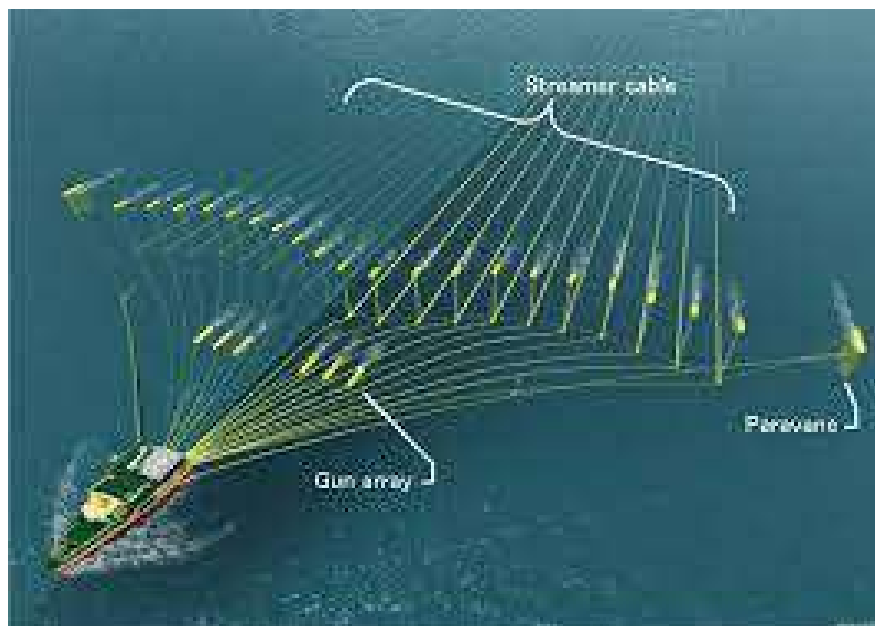
What would possess a company to build a ship this shape? The clue is in the stern view.



You're looking at the open bays housing a total of 24 winches, strictly called hydrophone streamer reels. Each of those reels can hold over 10 kilometres of streamlined seismic recording equipment. Altogether, the sensor array can cover over 12 square kilometres, so the outer reels can spread their tows more than 1.5 kilometres wide. The depth of tow is also controllable, to get the sensors below the surface noise and distinguish the reflections from the sea surface from the reflections from the sea bed.

I am no expert in seismic surveying, my understanding comes from brief descriptions of the process on land, in which a ground shock is generated by an explosive, and sensors in the area pick up and process the reflections of that shock wave from different density formations underground, revealing the shape of the geology and, for oil exploration, looking for dome formations in the rocks of different porosities which might hold oil or natural gas.

But I can understand that towing a huge array of sensors underwater like this could provide huge quantities of data for computer analysis and pin-point likely spots for drilling. I have a brother-in-law, a geophysicist who spent his career in south-east asia, and spent much time analysing exactly this sort of information.



So the rewards of actually finding oil are so huge that vessels of this size and complexity are worth operating.

Here's the statistics.

Name Ramform Titan
Owner PGS
Builder MHI, Nagasaki, Japan
Launched 2013
General characteristics
Length 104.2 m (341 ft 10 in)
Beam 70 m (229 ft 8 in)
Installed power 3 x 6,000 kw each
Speed 16 knots (30 km/h; 18 mph)
Crew 80

Her DWT,(maximum load in tons) is about 7500, so it's an awful lot of ship. As you'd expect with a crew of 80. That crew is well provided for, there are 60 individual cabins, and another dozen twin cabins, each with private bathrooms. There is a substantial auditorium/theatre and a well-equipped gym. My bet is that the cooks are good and the food more than ample. I have to wonder about the effects of the undersea noise and the towing of such a massive array have on wildlife, and I have my doubts if the world should be searching for more fossil fuels. But if we must, these strange ships are quite a way to do so.



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vmss.ca**