



March 27, 2023

Subject: NC Sub Museum SitRep

Welcome to Spring,

1Q23 was productive with necessary emphasis on support of our busy North Carolina submarines. You may have seen the announcement by President Biden of the SSN construction cooperation with Australia. His announcement made in San Diego with the Charlotte 766 in view behind the President and his remarks referred to the Asheville 758's coincident visit in Perth, Australia.

Both the North Carolina 777 and Charlotte 766 prepare for deployments later in the year. Work-up to these 6 month evolutions requires plenty of time at sea for training, qualification and operational readiness. In short, they're gone from home a lot. Asheville 758 is considered to be on continuous patrol given her Guam home-port. Rather than a 6 month deployment every 18 months, she's in and out of port on approximate 3 month intervals.

Keeping our submarine operationally prepared can be a shell-game of sorts by temporarily borrowing from one to support another. Although minor in the grand scheme, our Museum's emphasis of STEM education in our Exhibit Pavilion adds a voice to the critical need for skilled construction labor (electricians, pipe-fitters, welders as well as IT and Systems Engineering talent).

Key Accomplishments

- Exhibits- our story or description of an Underwater Spaceship in the Universe of the Ocean is coming together. Met with Matt Pearson of Ratio Design to discuss how the **Museum's interior spaces** might present visitors with a sense of the Ocean (depth, pressures, vastness, cold) in which a submarine must survive and operate. What could be the right mix of physical features and virtual-reality technologies to convey this experience? Such representations will convey to the visitor why a nuclear-powered submarine is so engineered.
- Met with **Lenovo's** Manager for **Virtual Reality Technologies**. Next step is a related grant application.
- Gray Thompson and I met with the Director of the **Duke Energy** Education Center in Southport, NC near Wilmington. He then followed-up with a telephone briefing with

Mary Kathryn Greene, Manager of Duke Energy **Corporate Communications**. We discussed possible partnership and ideas for reinforcing one another's descriptions of the benefits of nuclear power systems.

- **NCSM STEM Pavilion** will focus on 8 Systems (is the current thinking)
 1. **Design**- Enable the Mission & contend w/ the hostile environment of the Universe of the Ocean. Requires attention to detail (one chance to 'Get It Right'); rigorous testing; redundant & fail-safe systems
 2. **Construction**- can require 5 years to build to ensure 100% self-sufficient operations including underway maintenance and repairs
 3. **Nuclear Plant**- without the need for external oxygen, heats water to generate steam which does the 'work' of rotating turbine blades.
 4. **Engineering**- steam-powered turbine blades generate electricity and rotate the propellor shaft and propellor blade
 5. **SONAR** (Sound Navigation And Ranging)- at Ocean depths where there is nearly no light (300' & below), enables orientation and direction-finding. Listens for sounds generated by other ships & submarines.
 6. **Navigation**- In conjunction with SONAR, using Gyro-Scopes and Global Positioning Systems (GPS) to determine location and direction as well as awareness of under-sea objects
 7. **Habitability**- mission-critical systems (Air, Water, Food, Light, Sleep, Recreation) that enable crew of 150 to survive underwater for up to 6 months in proximity to a 40 Mega-Watt nuclear power plant (enough energy for a city of 75,000 people)
 8. **Weapons**- Ability to protect itself and to defend the United States of America. Capability to locate, target and attack enemy combatants.

Site Location

- Behind on this task and intend to have related preliminary discussions throughout April, May and June

Museum Construction Schedule

- Good news is that I believe that our NCSM project is about 6 to 12 months ahead of its projected 5 year plan of action. Timing and opportunity (STEM Ed, Skilled Labor Shortages, Credibility of our Team) seem to be in our favor when speaking with others.
- When asked "When", I answer that the NCSM will open in 2027.

3 NC Submarines

USS Asheville SSN 758

- Although commissioned in 1991, she's reliably able to make her own commitments and, on occasion, those of others.
- Introduced this month to two former 758 Commanding Officers, Kerry Ingalls and Bruce Groom, both of whom are interested in supporting our NCSM.

- On April 6th, Dr. Julie Lockwood, wife of CDR. Tom Dixon, 758 CO, will meet with the **Mayor of Asheville** in Asheville. At that time, we'll announce **Project 21**, the March 3, 2024 dedication of a monument in Asheville's Riverside Cemetery to the 160 men lost in combat on 3 March 1942 in the Java Sea.



Commodore Trask with 758 crew prior to Australia visit

USS Charlotte SSN 766

- Continuing work-up and preparations for late 2023 deployment.
- We're supporting the Family Readiness Group activities such as the recent Easter Party (photo below)
- Whit McDowell (Foundation Treasurer) and I will meet on March 28 with **Chiefs of the Charlotte Fire Department** and Board members of the [national Sub Vets Association](#) for introductions and sharing of ideas for supporting the 766
- I'll visit Pearl Harbor in late April with plans to meet with 766 FRG and Command



776 Family Easter Party

USS North Carolina SSN 777

- Gray Tompson and Alex Dworjan, as new leaders of the 777 Club, are in reliable contact with both the 777 Command and its FRG.
- Due to changes in operational priorities, 777 unable to visit North Carolina in spring as hoped.
- 777 continuing work-up and preparations for mid to late 2023 deployment.
- I'll visit Pearl Harbor in late April with appointments to meet with FRG and Command.

Your suggestions and referrals always welcomed.

Go Navy!

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