Maury Project 2017

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This summer I had the distinct pleasure of representing Canada at the annual two week Project Maury teacher peer-trainer program hosted at the United States Naval Academy (USNA) with the American Meteorological Society (AMS). My position was funded by the Canadian Meteorological and Oceanographic Society and the Canadian National Committee for SCOR. I am thankful that they continue to support teacher professional development.

The course is a wonderful opportunity to meet highly engaging and masterful educators from across the border. It is rare for me to get the opportunity to meet American teachers and this was perhaps the most appreciated part of Project Maury. I was also the most junior teacher on the course, so I was thrilled to get to soak up the good ideas from my 'elders'.

The course is a well-oiled machine. The program organizers have been doing this for over twenty years and their proficiency is incomparable. Although the program has spanned three decades, they are still able to draw on the cutting-edge research of USNA, NASA and NOAA colleagues, former students and friends that make the program relevant and meaningful. It's a completely overwhelming, absorbing two weeks for participants. For the organizers, they started planning the next year before we even finished this one.

The content of the program is broken into a series of modules. They range from very general to more specific content, however each one could fit within my provincial curriculum at multiple levels. The topics covered include: waves and tides, density and wind driven circulations, sea-air interactions, physical factors impacting ocean life, changing climate, sea levels and coastlines, ocean reservoir capacity, sea level measurement, direct and remote sensing, El Niño and La Niña, and winds, storms, hurricanes, and storm surges.

The activities are designed to use material 'from the recycling bin' and few extra resources. It is nice that they are not elaborate or costly thus accessible regardless of school resources. Very few of the activities require Internet. It's a nice reminder that students don't need the latest tech to have effective learning. Additionally, one of the best parts of the program was that although the organizers showed these traditional demonstrations, they allowed plenty of time for teachers to discuss adaptations or modernizations. Which videos and websites would supplement or enhance the cardboard paper tube demonstration? Which apps could make recording data from this density lab more precise or easier to interpret? The flexibility of learning was awesome.

The downtime each day was spent exploring Annapolis, learning about the history of the Chesapeake Bay and enjoying the multiple pubs and restaurants of the area. We also spent a day in Baltimore at the National Aquarium, a half day at the NOAA headquarters and another half day at the NASA Goddard Centre.

Upon my return to Canada, I facilitated a workshop for my colleagues focused on one specific lab about density-driven ocean circulation. The teachers' evaluation of the workshop was positive and they were interested to get more information about the other labs, specifically those related to waves as it is a significant portion of our physics courses.

I am grateful to the CMOS award coordinators for selecting me and the AMS's gracious welcome of a Canadian. These kinds of cross-border connections are rare. Special thanks to David Smith and Don McManus (Maury Project), Wendy Abshire (AMS), and Denis Bourque (CMOS). Thank you also to William Swick, Shawn Gallaher and Joe Smith at the USNA. Their professionalism, respect and sensibility blew me away – they were great mentors and a positive reminder that there is meaningful work being done by the American government and military.

Taking the temperature of Chesapeake Bay bottom water the analog way. Aditi is on the left.

Comparing tide heights using sticky notes.

At the end of a good day surveying coastal landscape and seine netting the littoral zone.