***Cruise Summary (09/18/2019 – 10/16/2019)***

***AX081019 – Maersk Vilnius***

***Technical rider: Albert Buhr***

The NOAA equipment was set up on board the Maersk *Vilnius* by the rider Albert Buhr in Durban harbor. A storm and rough seas on the passage from Durban to Cape Town meant Albert was prohibited from going out on deck, so mild weather in Cape Town was a welcome opportunity to troubleshoot GPS problems (the Iridium readings were failing to register), and mount the secondary antenna. Departure of the ship followed on the early morning of September 25th.

Drops proceeded without incident until 8.30am GMT on September 28th, when deployments were paused for a 45-minute "man overboard" drill. More dramatically, drops were also paused for 48 hours from the evening of October 9 to 11 when the Vilnius joined a search and rescue operation (sadly unsuccessful).

The ALR04 worked well enough but as the days passed, more and more of the pins had to be manually depressed after loading XBTs; use of silicone spray did not seem to make much

difference. Both the ALR03 and ALR04, as well as the faulty antenna, were replaced by James Farrington after arrival in Newark harbor.

Occasionally the GPS data from the antenna would stop changing (this occurred about 5 times on the transect), but a simple reboot of the laptop always easily resolved this.

The rest of the voyage proceeded without incident.

A high density mode of one drop every 25km was used. Traveling at an average speed of 15 knots, XBTs were deployed every 50-54 minutes (depending on the changing speed of the ship), with deployments ending on 16 October after reaching a depth of 200m.

Generally a good voyage with very few bad profiles.

***General Comments***

As always, Captain Vineed K. Vincent and the officers and crew of the Maersk *Vilnius* showed great hospitality, and the ship’s steady speed and point of release so close to the water make it an ideal ship for scientific cruises.