***Cruise Report (21/08/2016 – 07/09/2016)***

***AX180816 – Eternal Ace***

***Technical rider: Chris Jacobs***

After leaving Zarate (23/08), a final stop was made at the port in Montevideo. The setting up of the equipment only began after leaving Montevideo (24/08) under instruction by the Chief Engineer aboard the vessel. Numerous problems were encountered while setting up, chiefly with the cat5 cable, AL interface box and incorrect port assignments within the system. These were replaced, and or fixed, and thus XBT deployments began on 24/08/2016.

Two density modes were used for this transect namely High density (1 drop every 10km) and Intermediate density (1 drop every 30km). The density modes were completed as follows:

53°W - 40°W: High density

40°W – 0°E: Intermediate density

0°E – 18.5°: High density

Travelling at an average speed of 14 knots, XBTs were deployed every 23 minutes during high density and every 1 hour 23 minutes during intermediate density.

Due to severe weather, a deviation from the initial cruise in the cruise track was done. These deviations were observed on the 28th and 29th whereby the ship drifted for a day so as to avoid the an oncoming storm and then again on 29th and 30th whereby the ship headed due South to steer clear of the passing storm and get back onto the proposed track for the Great Circle. During this time, deployments were continued in high density mode so as to track the movement of the vessel. These changes in procedure forced the company to reschedule its cruise plan and port stops. Deployments were ended on 05/09 at 18.5°E.

***General Comments***

The Eternal Ace is an ideal vessel for XBT deployments with the captain and crew being more than willing to assist even during the early hours of the morning. A thank you has to be extended to the Captain, Pavel Medvedkov, officers and crew of the Eternal Ace for all the effort and assistance and for the great hospitality aboard the cruise.

A thank you to the Principal, Governing Body and Staff of Livingstone High School for allowing me, the Mathematics teacher, time off from school to undertake this transect during examination period.