10th February 2017

MINISTERIAL STATEMENT

TO THE HOUSE OF ASSEMBLY

BY THE HONOURABLE N.H. COLE SIMONS, JP, MP,

MINISTER OF THE ENVIRONMENT

Monitoring our Exclusive Economic Zone

10th February, 2017

Mr. Speaker,

I rise today to brief my honourable colleagues on our efforts to better understand the pressures that our Exclusive Economic Zone is facing, so that we can make any necessary adjustments to our management of this area, in order to ensure sustainable resource use for not only our present but future generations.

I am therefore happy to inform my honourable colleagues that the Ministry of the Environment is now in receipt of a final report from ***Catapult Satellite Applications*** that reviewed the activity of vessels within and around Bermuda waters.

Mr. Speaker, in 1996, an Exclusive Economic Zone (EEZ) of 200 nautical miles of ocean surrounding Bermuda was declared. Bermuda has rights over all natural resources within this EEZ, and the Island derives important economic value from these

resources. Our commercial fishermen depend on the fisheries resources found within the EEZ waters for their livlihoods, and critical foreign exchange is brought to Bermuda every year through visiting sports fishing vessels looking for '***the big one'***.

In a world where some 90 percent of fish stocks are either fully or over exploited, it is our responsibility to manage the resources under our care sustainably and to establish to what extent our resources are under threat from outside fishing fleets. Bermuda has a significant legal deterrent to discourage illicit activity in our waters. If a foreign vessel is convicted of fishing illegally in Bermuda waters anywhere in the EEZ, the Fisheries Act 1972 provides for a fine of up to one million dollars and confiscation of the vessel and the catch. The challenge is and continues to be how to effectively monitor for such activity.

Mr. Speaker, the technology that has put the oceans of the world under even more pressure can also be used to our advantage. Most large fishing vessels and their support craft have Automatic Identification Systems (AIS) fitted on their vessels as a safety and tracking tool. This device emits a signal. However, some fishing vessels are known to turn off their AIS tracking systems when close to a country's EEZ, either because they wish not to be interrupted when taking innocent passage through an EEZ, or because they are fishing illegally.

It is now possible to analyse AIS tracks via satellite in ways that will show fishing patterns, re-fuelling patterns and journeys that mysteriously continue with AIS and other identifiers switched off.

In October 2016 Satellite Applications Catapult (Catapult)**, a UK based company** undertook a review of shipping activity data collected via satellite from 2013 to 2016. This review provided two analyses of vessel activity in a 300 mile offshore study area. The first was a three-year review of where vessels moved and in what time frame. The second study was a two-year review of fishing vessel compliance with EEZ fishery rules.

The data was collected inside Bermuda's 200 nautical mile exclusive economic zone and a surrounding 100 nautical mile buffer zone, which constituted the ***Bermuda Area of Interest***.

Catapult analysed Automatic Identification System (AIS) signals broadcast from commercial vessel over 300 gross tons as well as fishing and pleasure vessels. Vessel identification, distribution and speed were examined to determine likely fishing activities

in an area. These positional records and accompanying identity data were compared with relevant fishing vessel identities from dozens of sources, including all major *Regional Fishery Management Organizations* (RFMOs).

Mr. Speaker, The first review included the monitoring of eleven thousand, one hundred and fifty nine (11,159) unique vessels broadcasting AIS within the study area during the 3-year time period. AIS operators have the option of how they broadcast their ship type. For example, today they can broadcast as a commercial fishing boat and tomorrow they broadcast themselves as another ship type. Consequently, misreporting and/or missing ship type information is common.

As such a second review was undertaken to look at all available data to identify specific compliance threats around the Bermuda

EEZ. This review investigated nine thousand, four hundred and thirty four (9,434) individual tracks over a 2-year period to identify the likely compliance of fishing vessels and fishing support vessels operating in or near the Bermuda EEZ, and to identify possible threats, and make recommendations for high risk or suspicious activities.

As part of this assessment, every possible fishing vessel or fishing support vessel was reviewed for compliance with relevant fishery rules, as well as every vessel track with indications of possible fishing or fishing support activity in the Bermuda **Area of Interest**. Specific vessels were identified based on the risk level, with recommendations for follow-up investigation of the vessels with greater possibility of non-compliance with our EEZ rules. Suspicious tracks were

compared to relevant weather data at that time in that area to look for other drivers of abnormal track behavior.

Mr. Speaker, I would like to pause here to express my thanks, on behalf of the Ministry of the Environment, for the support of Mr. Dudley Cottingham and Aurum Fund Management, which paid for these important studies. This analysis gives us a much deeper understanding of what is happening in our Exclusive Economic Zone. The studies provide an important benchmark that can be used when analysing future activity

Mr. Speaker, the results of the three-year study showed that there were no strong seasonal or spatial trends in AIS activity that could potentially be associated with illegal fishing. However, the second more specific review of fishing indicated some heightened fishing activity between November and May in

the Bermuda Area of Interest. This increased fishing activity creates a slightly higher risk to the Bermuda EEZ of illegal incursions during those months.

Mr. Speaker, the presence of fishing vessels transmitting on AIS is frequently an indicator that other non-transmitting fishing vessels are operating in the area, a hypothesis that was supported in 2015 by the persistent operation of a carrier vessel transmitting tracks consistent with transhipment. Also supporting this hypothesis, at least one fishing vessel ceased transmitting on AIS while engaged in fishing near the Bermuda EEZ in September 2015.

Mr. Speaker, these two reports show that while the probability of illegal fishing in our 200-mile exclusive economic zone appears to be low, there is some heightened fishing activity

between November and May in our Area of Interest. This does not necessarily mean that the activity is illegal but rather that we should be watchful that it is not. We should also develop effective measures to enforce the protection of our EEZ should there be an incident of illegal fishing. However, these measures must be both cost effective and flexible enough to address the need.

Mr. Speaker, the Department of the Environment and Natural Resources, guided by the Marine Resources Board, will now review the reports and propose recommendations for the appropriate level of monitoring needed to confirm suspicious fishing activity within our EEZ. These recommendations will form the cornerstone of a new ***Marine Resources Enforcement Strategy*** that will look at ways and means to more efficiently manage our coastal waters through to the outer edges of our

EEZ. Ultimately, we want to conserve the resources in Bermuda's waters for Bermuda's long term sustainable use.

Mr. Speaker, with these brief remarks I now invite comments from my honourable colleagues.

Thank you Mr. Speaker