

Ministry of Agriculture Fisheries Department

Vessel Monitoring Systems Annual Report 2017

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Executive Summary

This report contains the analysis of the Vessel Monitoring (VMS) database for the period January 1, 2017 to December 31, 2017. The licensed trawling vessels were monitored using the Meta Fisheries Software Version: 2.6.13 (Mapping environment for tracking application), continuous monitoring is conducted at the Legal and Inspectorate Unit of the Fisheries Department, Ministry of Agriculture, Guyana.

Several activities were monitored and highlighted these include departure and arrival dates, days at sea, length of trips and infringements; The industry's four major companies Pritipaul Singh Investment Inc. (Mc Doom) and (Providence), Bev Processors Inc., Guyana Quality Investments Inc. and Noble House Seafoods Ltd. were monitored independently and their information presented at the Seabob working group's monthly meeting.

In 2017 Seabob vessels spent a total of 15,416 nominal Days at Sea (DAS), which represents an 83.92% usage of the maximum 18,368 nominal DAS, while the industrial average of days spent at sea per trip was 8. The total median industrial trip per month was 3.4. The total number of infringements for the period under review was one thousand three hundred and thirty (1330) of which four hundred and seventy-nine (479) were No Trawl Zone Entry (NTZE) while eight hundred and forty-nine (849) No Beacon Signal Receive (NBSR) were recorded.

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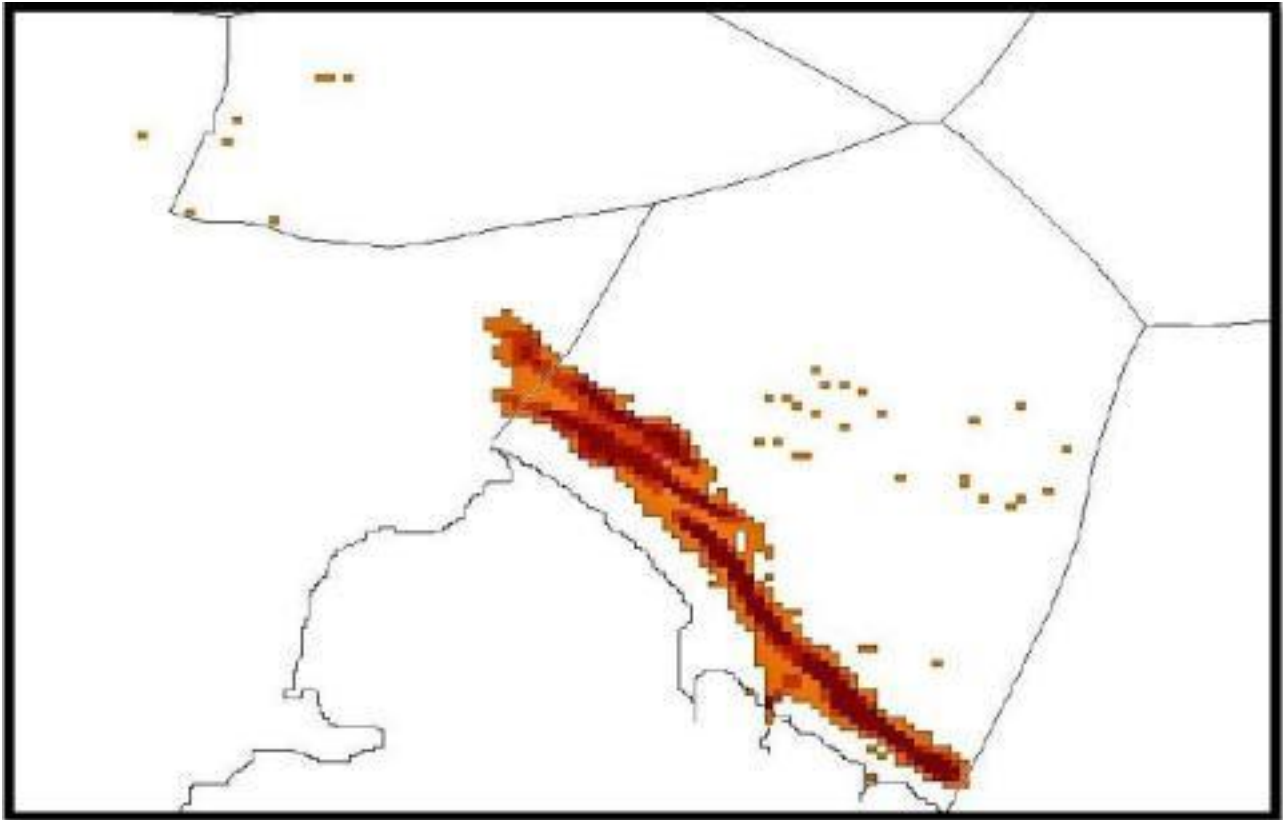
1. Overview of the Vessel Monitoring System Activates.

The Legal and Inspectorate Unit (L&IU) of the Fisheries Department, Ministry of Agriculture, is responsible for monitoring control and surveillance services in the fisheries sector. The unit is equipped with vessel monitoring software (Argos) and has been recording data since October, 2013. The primary target of these activities is the industrial Seabob fleet however data from other bottom trawl and longline vessels equipped with monitoring beacons operating with the country's exclusive economic zone are recorded.

1.1. Details of the monitored area:

Country:	Guyana
Place type:	EEZ
Latitude:	8° 36' 53.3" N (8.61480859°)
Longitude:	57° 40' 8.3" W (-57.66896753°)
Precision:	371038 meter
Min. Lat:	5° 29' 10" N (5.4861°)
Min. Long:	59° 59' 25" W (-59.9903°)
Max. Lat:	10° 41' 35.9" N (10.6933°)
Max. Long:	55° 46' 32.7" W (-55.7758°)

Image.1. Guyana's Exclusive Economic Zone highlighted in red, the target area of all Vessel Monitoring System (VMS) activates.

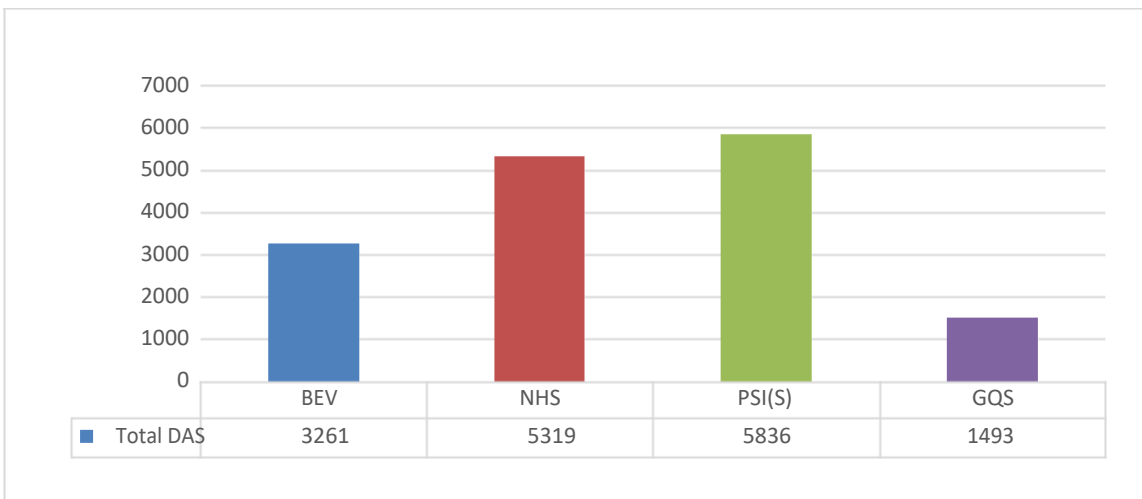


Highlights the total area fished for the year 2017. The colorations of red and orange are representative of Seabob trawling intensities, The Red areas represents “target ground” which presented the highest satellite pings. The top 75% of all trawling activities were carried out in the “red zones” and the clear distinction, is a good indicator of Guyana Vessel Monitoring Systems Regulation efforts, which limits industrial fishing (Seabob) to above the 7 fathom line but below the 18 fathom, this is represented as the clusters closest to shore while the Prawn industry vessels are represented as the third away from the coastline which is above the 18 fathom lines (prawn vessel boundary). The scattered dots off the continental shelf break are representative of Guyana's budding deep seas fishing explorations.

2. The Industrial Seabob Fleet and company's being monitored.

Eighty-three (83) bottom trawl Seabob vessels were continually monitored in 2017. These boats were allowed a total of 225 nominal days at sea in accordance with the Harvest control rule. The Seabob vessels were permitted to operate in above the established 7 fathom line along Guyana's coastline but below the 18 fathom line established in Guyana's Exclusive Economic Zone, breach of these designated fishing grounds for Seabob actives were considered infringements along with surpassing the nominal days at sea.

Figure. 1. A comparison of the industrial Seabob vessels by days spent at sea.

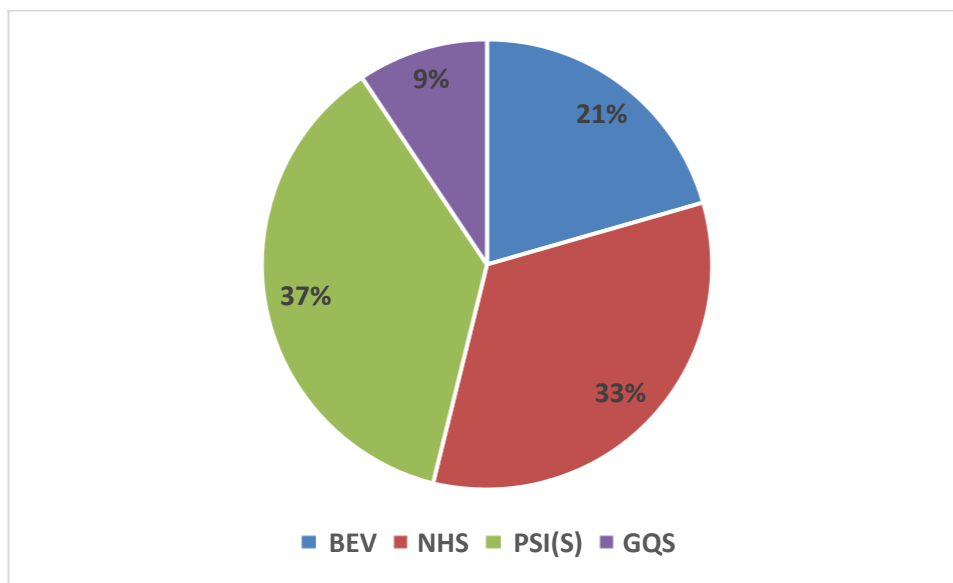


(Source: *Meta Fisheries Software Version: 2.6.13*)

The graph above represents the total number of days at sea utilized by each of the industrial Seabob companies. Each company was allotted a total of 225 nominal days at sea (The nominal time specifies the time when something should happen. In theory the nominal time and the actual time should match, however, in practice due to delays the actual time may occur later than the nominal time.) per vessel. Each company was capped by the number of registered vessels multiplied the 225 days, the days at sea cap for each of the monitored companies' can be found in **appendix II**.

From January to December 2017 a total of 15,809 days were sent at sea this represents 83.70% of the total allowable industrial days at sea of 19,125. Pritipaul Singh Investments Inc. utilized 5,836 of their 6,300 days' quota representing 93% efficiency up from 2016. Noble House Seafoods Ltd. was second with a total of 5,319 of their 6,075 days' quota utilized, this translated to 87.5% efficiency also up from 2016. BEV processors Inc. spent 3,261 of their 3,825 allotted days which represents an 85% execution efficiency, while Guyana Quality Investments Inc. total in at 1,493 days utilized out of their 2,250 days at sea cap, this represents an 66% execution efficiency.

Figure. 2. Representative analysis of the days at sea usage for the industrial Seabob companies.

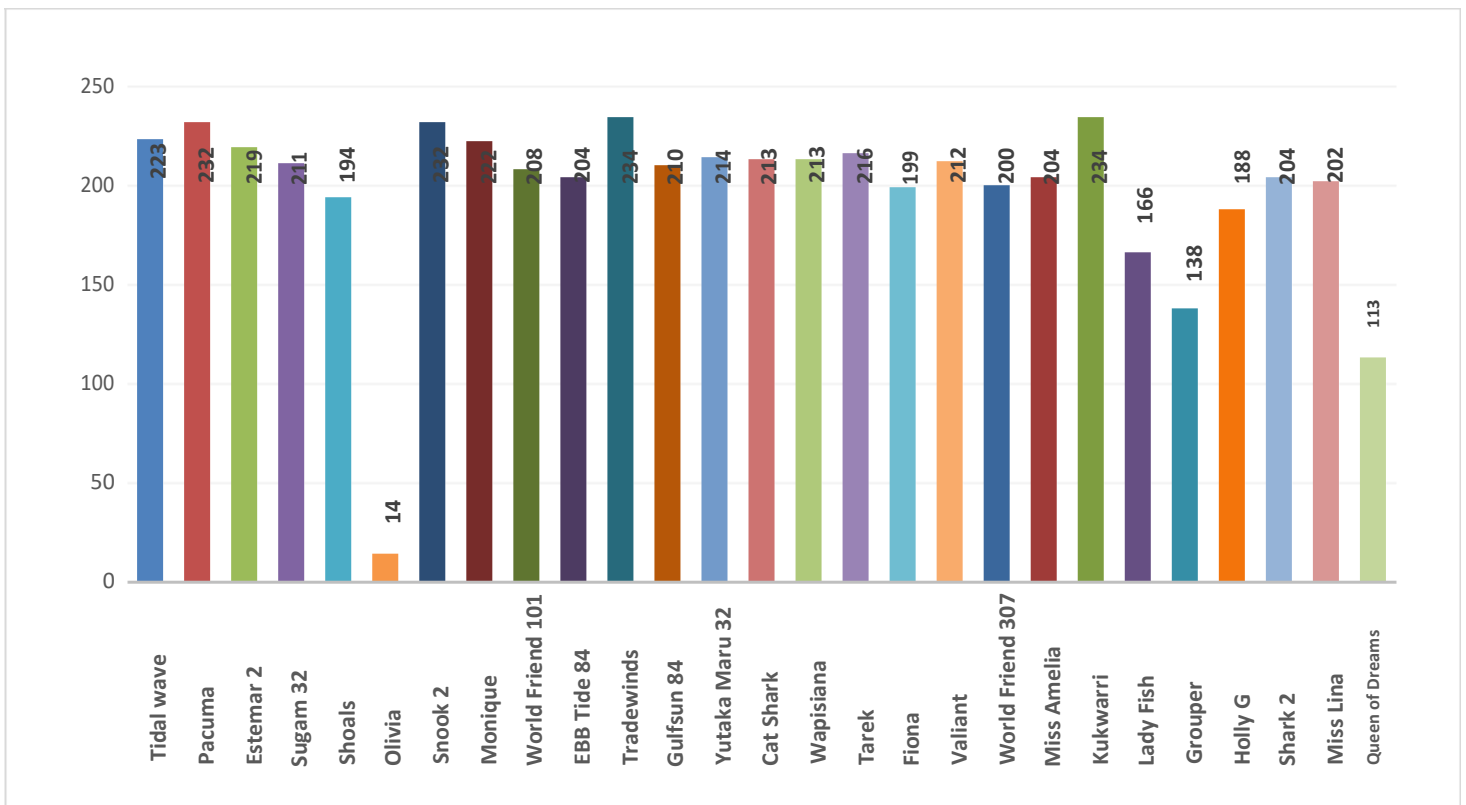


(Source: *Meta Fisheries Software Version: 2.6.13.*)

Graph 2. Highlights the company utilization percentage from the total executed fishing days provided to the industrial Seabob fishery of Guyana, this is not to be confused with the total allowable days at sea provided to the industry of which Pritipaul Singh Investments Inc. is allotted 37%, Noble House Seafood Ltd. 33%, BEV processors Inc. 21% and Guyana Quality Investments Inc. 9%.

Pritipaul Singh Investments Inc. days at sea represents 37% of the total executed fishing days provided to the industrials fleet, which can be interpreted as higher sail rates or sailing periods per vessel when compared to other companies, Noble house Seafood Ltd.'s 33% also indicates high fishing activities (sail rates). BEV processors Inc.'s 21% is reduction from 2016, this is also reflected in log sheet information submitted to the Fisheries Department, the median days at sea for BEV were recorded as 8 per vessel per trip.

Figure. 3. Shows the Monitoring Systems Analysis of Noble House Seafoods Ltd. Seabob vessels for 2017.



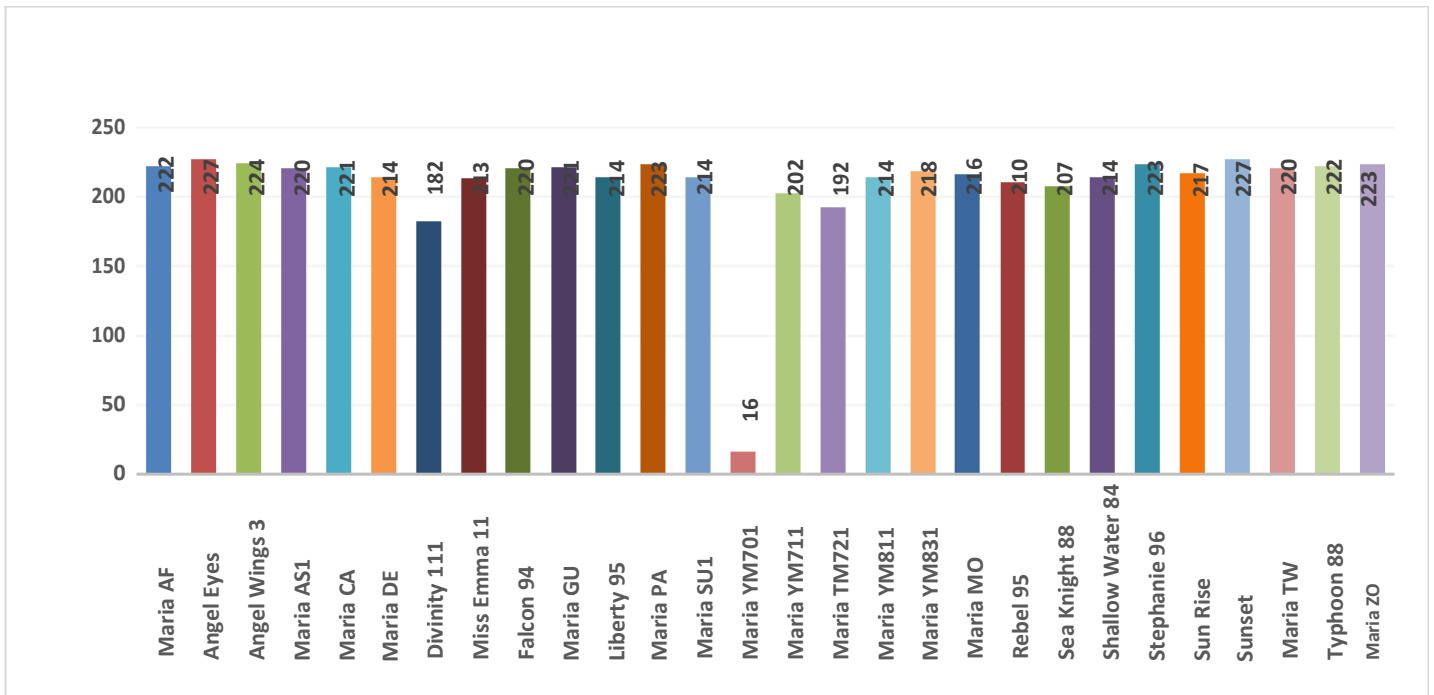
Vessel Performance

The overall performance of Noble House Seafood Ltd. Can be considered ideal, the company executed trips totaling 4,980 nominal days at sea. Olivia only utilized 14 of its 225 days as it was reported as being under repairs.

Vessels over stipulated days at sea

Vessel Tradewinds, Pacuma, Snook 2 and Kukwarri surpassed their individual 225 days at sea for the period under review, when cross referenced with log sheet information submitted to the Fisheries Department by Noble House Seafood Ltd. Several difference were observed with regards to days spent at sea, however when calculated the same remained true.

Figure. 4. Shows the Monitoring Systems Analysis of Pritipaul Singh Investments Inc. Seabob vessels for 2017.



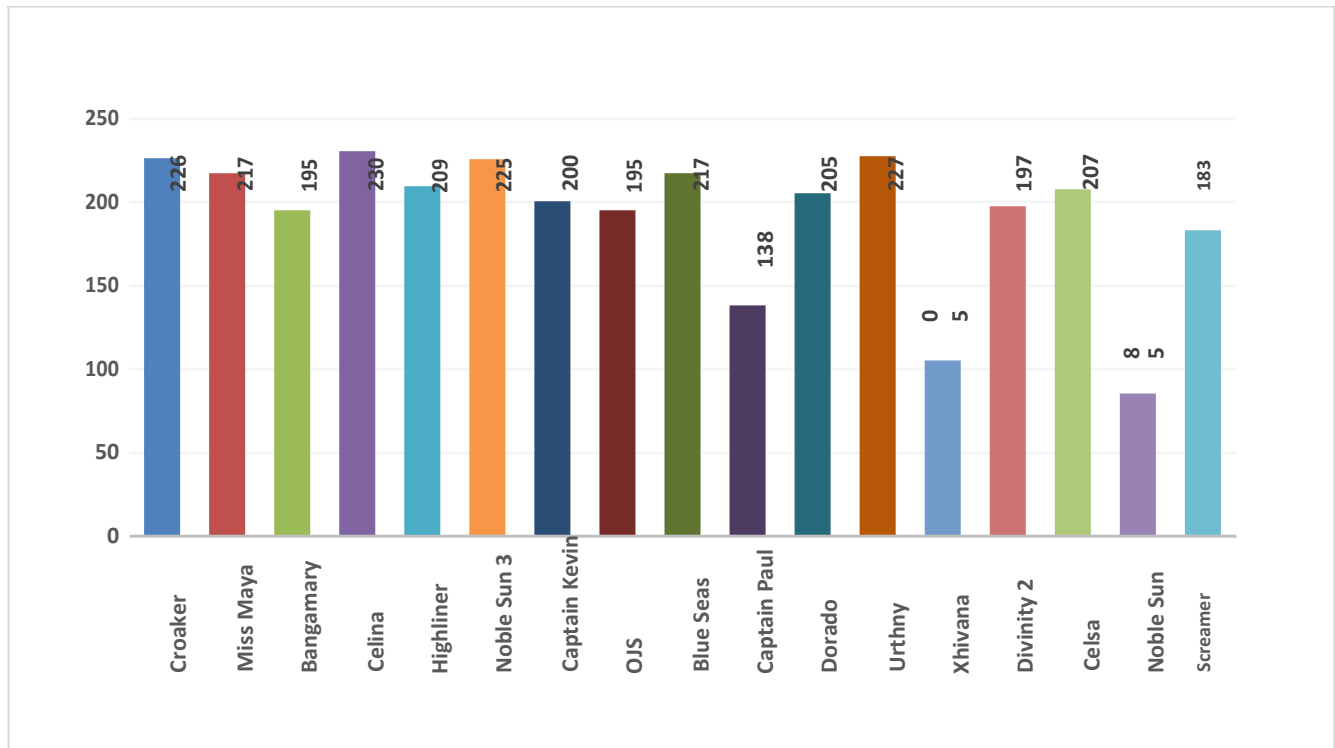
Vessel Performance

Pritipaul Singh Investments overall performance can also be characterized as better when compared to 2016. With the exception of Maria YM701 which only recorded 16 days at sea for the reviewing period, all vessels recorded days in excess of 182 days at sea reflected as to higher departure rates and efficiency with regards to individual licensed approved days at sea (225).

Vessels over stipulated days at sea

Pritipaul Singh Investments Inc. had two (2) vessels which exceeded the outlined 225 days at sea, these vessels are: Sunset (2), Angel Eyes (2). The total days exceeded were 4. It should be noted that when crossed checked with the log sheet information submitted to the Fisheries Department by Pritipaul Singh Investments Inc. there were also calculated as being above the established time period.

Figure. 5. Shows the Monitoring Systems Analysis of B.E.V Processors Inc. Seabob vessels for 2017.



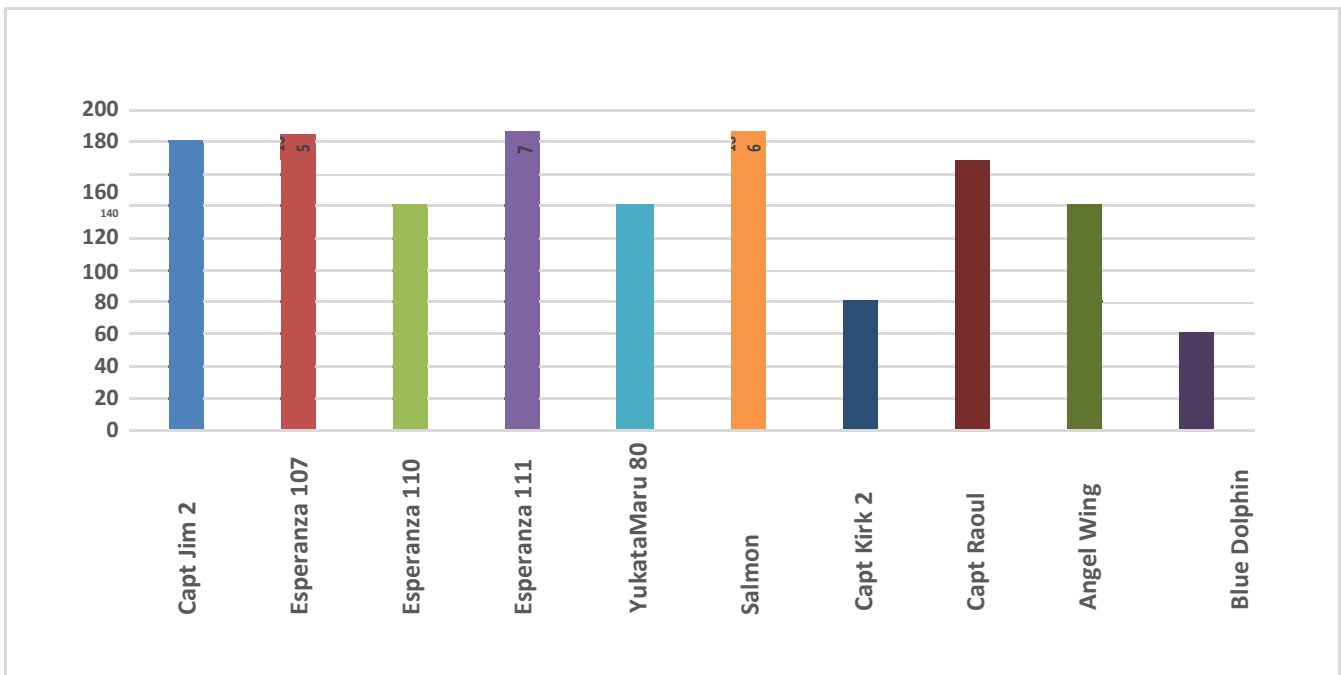
Vessel Performance

B.E.V Processors Inc. overall performance is considered to be average, the company's vessels executed several trips majority extending and sometimes even exceeding 8 days at sea per vessel, with the exception of the vessel captain Paul, Noble sun and xhivana which utilized at maximum 138 days at sea, the remaining vessel surpassed the 185 days point a clear indication of high fishing activity.

Vessels over stipulated days at sea.

B.E.V Processors Inc. had three (3) vessels which exceeded the outlined 225 days at sea, these vessels were: Croaker (1), Urthny (2) and Celina (5). The total days exceeded were 8. It should be noted that when crossed checked with the log sheet information submitted to the Fisheries Department by B.E.V Processors Inc. there were also calculated as being above the established time period.

Figure. 6. Shows the Monitoring Systems Analysis of Guyana Quality Investments Inc. Seabob vessels for 2017.



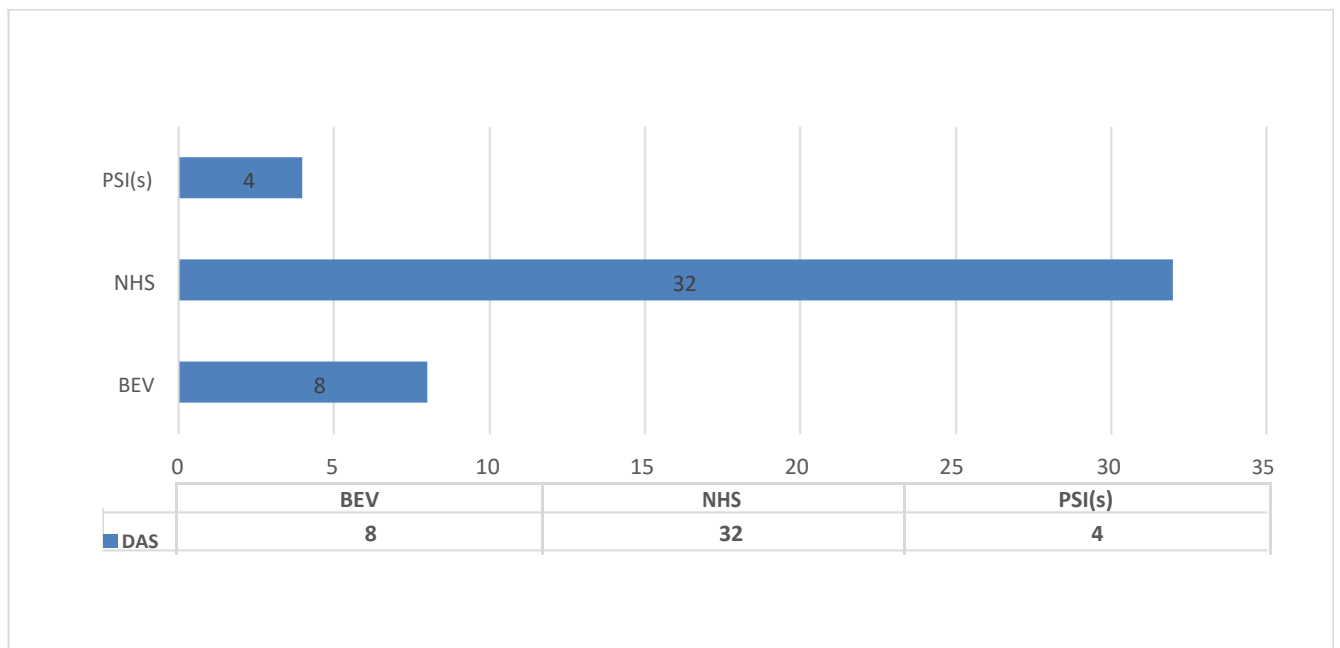
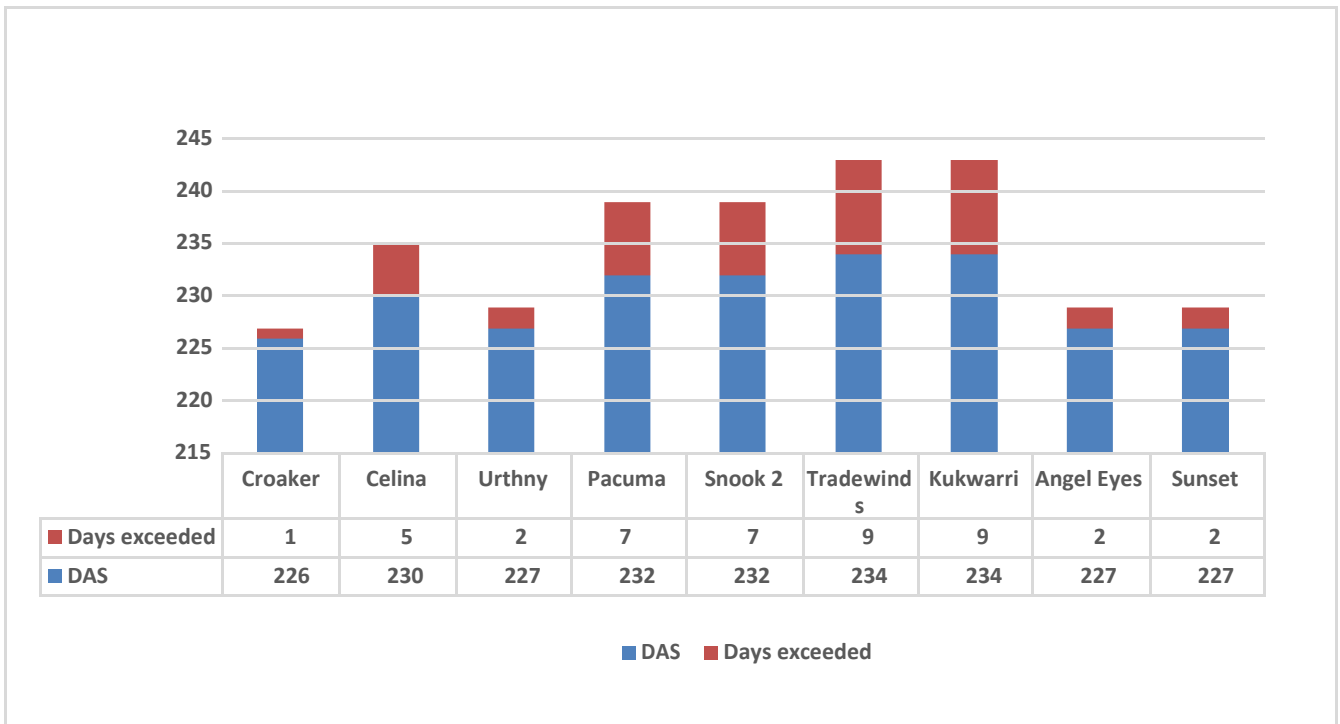
Vessel Performance

Guyana Quality Investments Inc.'s performance in 2017 can be considered as fair, it is an improvement over 2016 with the majority of vessels surpassing the 141 days at sea point, with exceptions Captain Kirk 2 and Blue Dolphin.

Vessels over stipulated days at sea

None of Guyana Quality Investments Inc. vessels were observed exceeding the established license limit of 225 nominal days.

Figure.7. Analysis of Industrial Seabob Vessels that exceeded the total allotted days at sea and the overall industrial compliance.



3. Infringements

All vessel infringements were cataloged on a monthly basis and presented in the monthly VMS report, this represents a summary of all infringements by the trawling vessels for the period January – December, 2017.

NO TRAWLING ZONE ENTRY – NTZE

- Below the 7 fathom line – 90+ min. (All vessels)
- Below the 7 fathom line – 90+ min. (Seabob Vessels)

NO BEACON SIGNAL RECIEVED – NBSR

- No signal transmission – 12 hrs. (All vessels)

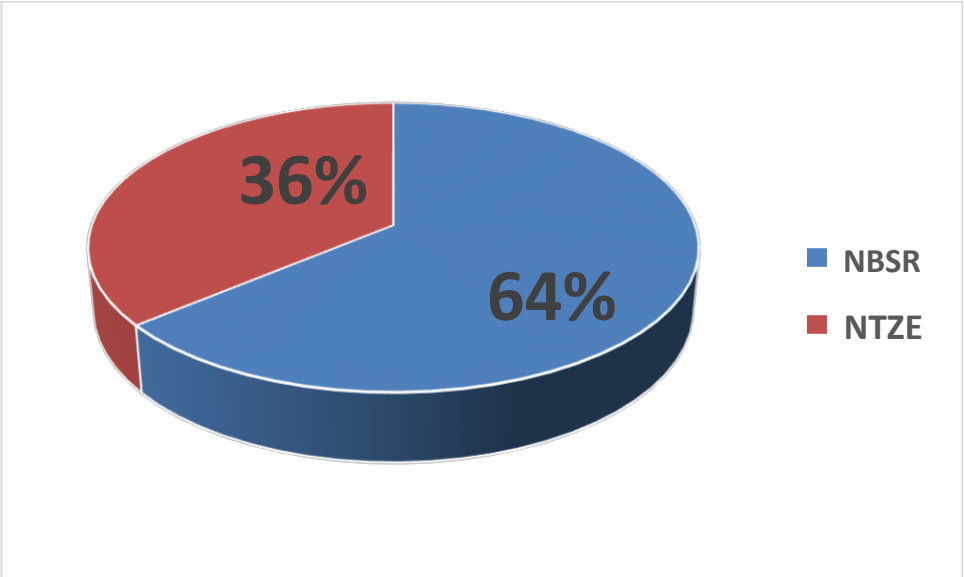
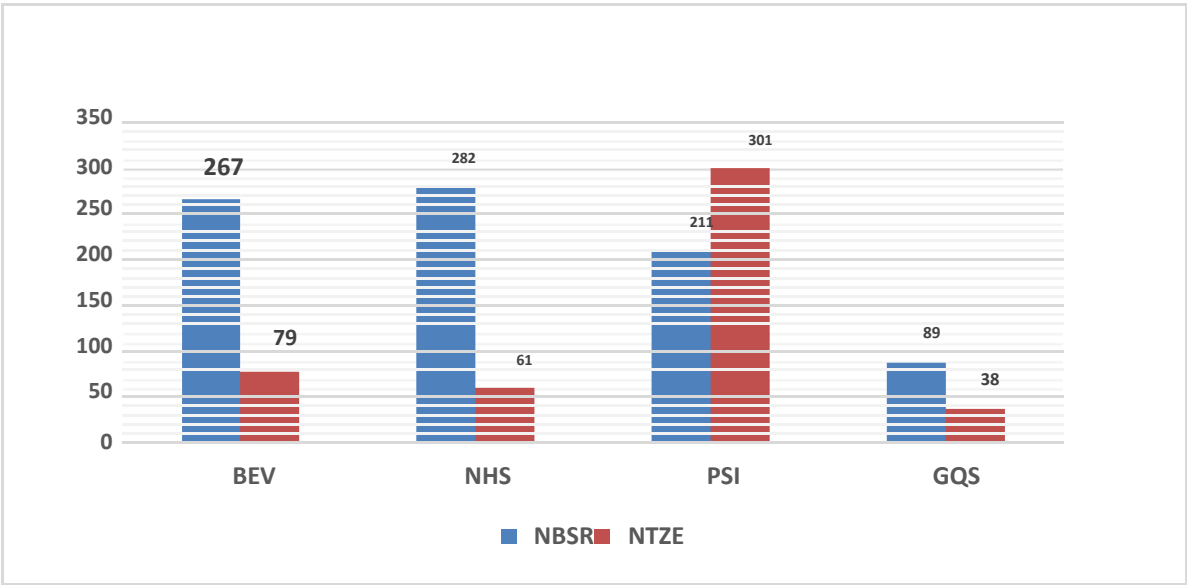
Total infringements of the industrial Seabob fleet.

In 2017 the total recorded infringements for the industrial Seabob fleet was One thousand three hundred and thirty (1330) of the total, eight hundred and forty-nine (849) were registered loss of beacon signal while four hundred and seventy-nine (479) were NO Trawling Zone Entry.

The principal issues affecting the Seabob Industrial Fleet were conveyed to the Fisheries Department via the Seabob Working Group (SWG). They stated, that the seven fathom line's location needed to be officially conveyed by the appropriate agency in an effort to further reduce the occurrence of line breaches.

COMPANY	NTZE	NBSR
B.E.V Processors Inc.	79	267
Noble House Seafood Ltd.	61	282
Pritipaul Singh Investments Inc.	301	211
Guyana Quality Investments Inc.	38	89
Total	479	849
	1330	

Figure. 8. Company Comparison of infringements; No Beacon Signal and No Trawling Zone Entry.



Conclusion

The overall performance of the Seabob Industry for 2017 is creditable, this is highlighted when comparing the results of 2016 and 2017. Several challenges continue to plague the department with regards to compliance and enforcement, namely VMS data analysis and identification of agreed fishing zones and limitations i.e. fathom lines. Notably this year was the tremendous increase in infringements amongst all companies this requires immediate attention and investigation to ascertain the accuracy of all data processed.

In 2018 the Legal and Inspectorate Unit intends to increase its effort through regular updates, timely submission of reports and continued interfacing to provide technical support and clarity in fisheries legal, monitoring and control services.