**DATA BUOY CO-OPERATION PANEL (DBCP-37)**

**FORM FOR REPORTING INCIDENTS OF VANDALISM ON DATA BUOYS**

*A double asterisk (“\*\*”) indicates an active outage; number of days represents days out as of 7/31/2021.*

*Numbers in brackets (“[ ]”) are provided for image and/or slide identification. Ref # is for NDBC internal use and for use within this document.*

| **Country** | **Chile** |
| --- | --- |
| **Contact person e-mail** | Juan Pablo Jorquera Garcia, jjorquera@shoa.cl, 56 – 32 – 2266684 |
| **Year** | **Buoy Location** | **Type of Buoy****(e.g. Tsunami / Met -Ocean Buoy/Drifter/ARGO** **floats/ Other)** | **Type of damage to buoy** | **Buoy id/WMO id** | **Number of days of transmission lost** | **Cost of replacement** | **Remarks****(e.g. whether photos have been taken)** |
| **Latitude** | **Longitude** |
| 2021 | -32.987 | -71.81 | WatchKeeper Buoy | line cut | none | 6months | US$16.000 |  |
| 2021 | -20.248 | -70.247 | TRIAXYS | line cut | none | 9months | US$6.000 |  |

| **Country** | **China** |
| --- | --- |
| **Contact person e-mail** | Yue Xinyang, National Marine Data and Information Service, email: yue\_xin\_yang@outlook.com |
| **Year** | **Buoy Location** | **Type of Buoy****(e.g. Tsunami / Met -Ocean Buoy/Drifter/ARGO floats/ Other)** | **Type of damage to buoy** | **Buoy id/WMO id** | **Number of days of transmission lost** | **Cost of replacement** | **Remarks****(e.g. whether photos have been taken)** |
| **Latitude** | **Longitude** |
| 2020.10 | / | / | Met-ocean buoy | Ageing | / | 0 | 7.69 | No |
| 2020.10 | / | / | Met-ocean buoy | Ageing | / | 0 | 9.23 | No |
| 2021.1 | / | / | Met-ocean buoy | Destroy | / | 0 | 7.69 | No |
| 2021.2 | / | / | Met-ocean buoy | Destroy | / | 0 | 7.69 | No |
| 2021.3 | / | / | Met-ocean buoy | Destroy | / | 0 | 7.69 | No |
| 2021.3 | / | / | Met-ocean buoy | Destroy | / | 0 | 7.69 | Yes(Fig.1) |
| 2021.3 | / | / | Met-ocean buoy | Destroy | / | 6 | 26.15 | Yes(Fig.2) |
| 2021.4 | 0° | 85.5°E | Met-ocean buoy | Solar panel and battery damage | / | / | / | No |
| 2021.1 | 0° | 147°E | Met-ocean buoy | Drifting | / | / | / | No |
| 2020.10 | 85.8°N | 134.5°W | Other | Drifting | / | / | / | No |
| 2021.8 | / | / | Met-ocean buoy | Beidou satellite lost | / | 14 | 1.23 | No |
| 2021.3 | / | / | Met-ocean buoy | Buoy damage | / | / | / | No |
| 2020.8 | / | / | Met-ocean buoy | Low voltage | / | 9 | / | No |
| 2020.12 | / | / | Met-ocean buoy | Wind sensor damage | / | 5 | 0.82 | No |
| 2021.3 | / | / | Met-ocean buoy | Broken down | / | 61 | 1.94 | No |
| 2020.8 | / | / | Met-ocean buoy | Inflow and signal lost | / | 71 | / | No |
| 2021.7 | / | / | Wave buoy | Typhoon damage | / | 10 | / | Yes(Fig.3) |
| 2020.11 | / | / | Wave buoy | Malfunction | / | 48 | / | No |
| 2021.2 | / | / | Wave buoy | Malfunction | / | 6 | / | No |
| 2021.3 | / | / | Wave buoy | Malfunction | / | 13 | / | No |
| 2021.1 | 8°S | 100°E | Met-ocean buoy | No transmit | 5300041 | 270 | 30.77 | No |

| **Country** | **Colombia** |
| --- | --- |
| **Contact person e-mail** | jsaldana@ideam.gov.co, lheredia@ideam.gov.co  |
| **Year** | **Buoy Location** | **Type of Buoy****(e.g. Tsunami / Met -Ocean Buoy/Drifter/ARGO** **floats/ Other)** | **Type of damage to buoy** | **Buoy id/WMO id** | **Number of days of transmission lost** | **Cost of replacement** | **Remarks****(e.g. whether photos have been taken)** |
| **Latitude** | **Longitude** |
| 2020 |   12.5902778  |   81.7371944 | WAVE BUOY TRIAXYS | Anchor line break | P2137 – SAN ANDRÉS | Since January 2020 | USD$18.320(Line + maintenance + anchor) |  |
| 2020 | 11.1377335  |   -74.81075 |  WAVE BUOY TRIAXYS | Anchor line break.Wave sensor | P2159 - BARRANQUILLA |  |   USD$18.320(Line + maintenance + anchor) |  |
| 2020 |  8.724467 |  -77.33546 | WAVE BUOY TRIAXYS | Anchor line break.CTD sensor | P2158 - TURBO | Since 09/07/2020 | USD$44.492(Line + maintenance + CTD sensor + anchor) |  |
| 2020 |   11.1377335  |   -74.81075 |  WAVE BUOY TRIAXYS |  Total loss | P2174 - CARTAGENA | Since 17/07/2020 |  USD$106.257(Line + BUOY + anchor) |  |

| **Country** | **France** |
| --- | --- |
| **Contact person e-mail** | christophe.guillerm@shom.fr ; olivier.desprez.de.gesincourt@shom.fr  |
| **Year** | **Buoy Location** | **Type of Buoy****(e.g. Tsunami / Met -Ocean Buoy/Drifter/ARGO** **floats/ Other)** | **Type of damage to buoy** | **Buoy id/WMO id** | **Number of days of transmission lost** | **Cost of replacement** | **Remarks****(e.g. whether photos have been taken)** |
| **Latitude** | **Longitude** |
| 2021 | 10°S | 10°W | Met-Ocean buoy (PIRATA T-Flex) | Lost all atmospheric sensors and aluminium buoy tower |   | 4 days (from March 15th to March 19th 2021) |   | Vandalized buoy retrieved with only ocean sensors.See picture below. |
| 2021 | 20°S | 10°W | Met-Ocean buoy (PIRATA ATLAS) | Buoy adrift (not yet retrieved) |   | From June 26th |   | Atmospheric and oceanic data are still transmitted as it moves north-westward – latest position : 19.53°S – 14.84°W |
| 2021 | 10°S | 10°W | Met-Ocean buoy (PIRATA ATLAS) | Buoy adrift (not yet retrieved) |   | From July 5th |   | Only atmospheric data are still transmitted as it moves north-westward – latest position : 8.37°S and 11.90°W |

| **Country** | Morocco |
| --- | --- |
| **Contact person e-mail** | oceanomakaoui@gmail.com; karimhilmi15@gmail.com; Makaoui@inrh.ma; Hilmi@inrh.ma  |
| **Year** | **Buoy Location** | **Type of Buoy****(e.g. Tsunami / Met -Ocean Buoy/Drifter/ARGO** **floats/ Other)** | **Type of damage to buoy** | **Buoy id/WMO id** | **Number of days of transmission lost** | **Cost of replacement** | **Remarks****(e.g. whether photos have been taken)** |
| **Latitude** | **Longitude** |
| September 2020 |  |  | MetOcean Buoy | conductivity sensor repaired completely | EBM-OC N.S.182-F |  |  |  |
| oCTOBER 2021 |  |  | MetOcean Buoy | will be tested and installed | EBM-OC N.S.182-F | October 2021 |  |  |

| **Country** | **Republic of Korea** |
| --- | --- |
| **Contact person e-mail** | kwonmijeong@korea.kr; pskk@korea.kr; hyunslife@korea.kr  |
| **Year** | **Buoy Location** | **Type of Buoy****(e.g. Tsunami / Met -Ocean Buoy/Drifter/ARGO** **floats/ Other)** | **Type of damage to buoy** | **Buoy id/WMO id** | **Number of days of transmission lost** | **Cost of replacement** | **Remarks****(e.g. whether photos have been taken)** |
| **Latitude** | **Longitude** |
|  2021 | 33.700  |  126.591 |  Oceanographic observation Buoy |  Collision of vessel  |  |  |  |  |
| 2021 | 36.274 | 126.458 | Oceanographic observation Buoy | Collision of vessel  |  |  |  |  |

| **Country** | **Spain** |
| --- | --- |
| **Contact person e-mail** | Coastal Buoy Network (M. Isabel Ruiz Gil de la Serna, maribel@puertos.es) DATA NOT AVAILABLE ON GTS (Not WMO-ID)Deep Water Buoy Network (Marta de Alfonso, mar@puertos.es) Data available on GTS (WMO numbers assigned) |
| **Year** | **Buoy Location** | **Type of Buoy****(e.g. Tsunami / Met -Ocean Buoy/Drifter/ARGO** **floats/ Other)** | **Type of damage to buoy** | **Buoy id/WMO id** | **Number of days of transmission lost** | **Cost of replacement** | **Remarks****(e.g. whether photos have been taken)** |
| **Latitude** | **Longitude** |
| **2020** | 43,40º N | 3,13º W | Moored Coastal buoy | Drift, mooring line lost | n/a (Bilbao) | 2 days | Estimated, 3.000 € works to moor with a new mooring line | AIS system sends warnings about buoy position. But this area is very dangerous because navigation and another kind of traffic |
| **2020** | 43,35ºN | 8,56ºW | Moored Coastal buoy | Drift, mooring line lost | n/a (Langosteira) | 5 months | 6.000 € extra | Extraordinary service had to be delayed until June due to COVID |
| **2020** | 36,00ºN | 5,59ºW | Moored Coastal buoy | Buoy was hit, water intrusion affecting the entire electronic. Serious damages, no repair | n/a (Tarifa) | Out of order station due to works at the lighthouse, one year ago | Decommissionated | Out of lifetime, some spare parts were not neither available nor compatible |
| **2020** | 36,07ºN | 5,42ºW | Moored Coastal Buoy | Buoy was hit, water intrusion affecting the entire electronic. Serious damages, no repair | n/a (Algeciras) | 2,5 months | Insurance company compensation to buy a new one | Extraordinary service had to be delayed until June due to COVID |
| **2020** | 43,64º N | 3,09º W | Moored deep water Met-Ocean buoy | Drift. Mooring line lost. | 6200024 | 21 | Covered by the insurance | Suspect that a third party is involved |
| **2020** | 43,64º N | 3,09º W | Moored deep water Met-Ocean buoy | Drift. Mooring line lost. | 6200024 | 17 | Covered by the insurance | **2020** |
| **2020** | 44,123ºN | 7,7154º W | Moored deep water Met-Ocean buoy | Drift. Mooring line lost. | 6200082 | 17 | Covered by the insurance | **2020** |
| **2020** | 42,119ºN | 9,4293º W | Moored deep water Met-Ocean buoy | Transmission stop. | 6200084 | 11 | Covered by the insurance | Accident due to a collision |
| 2020 | 39.701N | 4.4244E | moored deep water met-ocean buoy | drift mooring line lost | 6100197 | 127 | covered by the insurance | suspect that a third party is involved. Delay in reposition due to Covid situation |

| **Country** | **United States of America** |
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| **Contact person e-mail** | John.wasserman@noaa.gov, James.wills@noaa.gov  |
| **Year** | **Buoy Location** | **Type of Buoy****(e.g. Tsunami / Met -Ocean Buoy/Drifter/ARGO** **floats/ Other)** | **Type of damage to buoy** | **Buoy id/WMO id** | **Number of days of transmission lost** | **Cost of replacement** | **Remarks****(e.g. whether photos have been taken)** |
| **Latitude** | **Longitude** |
| 2021 | 40.2508 | -73.1644 | Met | 44025/3DV24, 07/31/2021, 13:10 – 14:40 UTC. Buoy Camera detected an unidentified sports fishing vessel tied off to the buoy. Tie-off lines were clearly visible in the camera imagery. No data loss is associated with this incident. | 3DV24/44025Ref # 552 |  |  |  |
| 2021 | 40.5033 | -69.2642 | Met | 44008/3DV65, 07/28/2021, 09:10 UTC. Buoy Camera detected a vessel that appeared to be tied off to the buoy. No data from the buoy appeared to be adversely affected and there is no data loss associated with this incident. | 3DV65/44008Ref # 551 |  |  |  |
| 2021 | 39.6181 | -72.6436 | Met | 44066/3DV67, 07/24/2021, 13:10 – 14:40 UTC. Buoy Camera detected an unidentified sports fishing vessel tied off to the buoy. Tie-off lines were clearly visible in the camera imagery. No data loss is associated with this event. | 3DV67/44066Ref # 550 |  |  |  |
| 2021 | 40.2508 | -73.1644 | Met | 44025/3DV24, 07/24/2021, 01:10 – 06:10 UTC. An apparent tie-off by an unknown sports fishing vessel was detected by Buoy Camera. No data from the buoy was adversely affected and no data loss has been associated with this incident. | 3DV24/44025Ref # 549 |  |  |  |
| 2021 | 40.3694 | -73.7028 | Met | 44065/3DV12, 07/24/2021, 13:00 – 18:40 UTC. Buoy Camera detected two sports fishing vessels that were alternately very close to the buoy. No tie-off lines could be seen in the camera imagery but there were subtle anomalies noted in some of the buoy wave data, suggesting that there was likely some minor interference with the buoy. No data loss is associated with this event. | 3DV12/44065Ref # 548 |  |  |  |
| 2021 | 40.3694 | -73.7028 | Met | 44065/3DV12, 07/23/2021, 11:10 – 13:10 UTC. Buoy Camera detected an unidentified sports fishing vessel tied off to the buoy. Tie-off lines were clearly visible in the camera imagery. No data loss was associated with this event. | 3DV12/44065Ref # 547 |  |  |  |
| 2021 | 27.9097 | -95.3447 | Met | 42019/2.1D03, 07/28/2021, 23:40 UTC – 07/29/2021, 14:41 UTC. Buoy Camera imagery captured a vessel tied off to the buoy. The SCOOP onboard AIS receiver verified the suspect vessel. The buoy wave data was determined to be unreliable for 07/29/2021, 00:40 – 14:40 UTC. Data loss: 14.0 hours/0.583 days | 2.1D03/42019Ref # 545 | 0.58 |  |  |
| 2021 | 27.9097 | -95.3447 | Met | 42019/2.1D03, 07/28/2021, 16:10 - 17:00 UTC. Buoy Camera imagery captured a vessel tied off to the buoy. No data loss was associated with this event. | 2.1D03/42019Ref # 544 |  |  |  |
| 2021 | -4.9797 | -94.9833 | Met-Ocean(TAO) | 5S 95W, 32304, dm382a, 07/29/2021, 19:30 UTC – 07/30/2021, 11:30 UTC. Camera imagery and topside data from the buoy indicated that the camera had been covered and subsequently uncovered following an apparent purse seine pull event. An anomalous track in the buoy GPS positions indicated that a pull on the buoy most likely occurred while the camera was covered. The wind direction, wind speed and compass data, were flagged as unreliable from 07/29/2021, 19:40 UTC – 07/30/2021, 11:10 UTC. Data Loss: 15.5 hours, 0.646 days. | dm382a/32304Ref # 543 | 0.65 |  |  |
| 2021 | -4.9797 | -94.9833 | Met-Ocean(TAO) | 5S 95W, 32304, dm382a, 07/23/2021, 16:00 UTC – 07/24/2021, 12:50 UTC. Camera imagery and topside data from the buoy indicated that the camera had been covered and subsequently uncovered following an apparent purse seine pull event. An anomalous track in the buoy GPS positions indicated that a pull on the buoy most likely occurred while the camera was covered. The air temperature, humidity, wind direction and speed, and compass data were manually flagged as unreliable during the time frame of the event. Data Loss: 20.833 hours, 0.868 days. | dm382a/32304Ref # 542 | 0.87 |  |  |
| 2021 | 0.0111 | 165.0219 | Met-Ocean(TAO) | 0 165E, 52321, dm393a, 07/16/2021, 16:30 – 19:00 UTC. The buoy data signature, in conjunction with the AIS vessel track of the purse seine vessel operating in the vicinity of the buoy, was suggestive of a purse seine pull operation. the 5m - 500m water temperature , 300m - 500m pressure, 10m - 125m salinity/conductivity (5m sal/con previously failed) and the 100m - 200m PSCM (point current meter) were flagged as unreliable for the time frame of the event. Data Loss: 2.5 hours, 0.104 days | dm393a/52321Ref # 539 | 0.10 |  |  |
| 2021 | 28.8775 | -78.4850 | Met | 41010/3DV44, Recovery: 07/12/2021, 02:15 UTC, Deployed: 02/28/2018, 04:39 UTC, Most Recent Prior Service/Mooring Inspection: 06/06/2020. Upon recovery of hull 3DV44 on 07/12/2021 (UTC), the service technician made the following comment on the mission Trip Report: “Fishing net tangled around bridle upon arrival; fishing lines tangled all over upper mast and SCOOP power frame; ropes and lines tangled around upper mooring.” See previous (7) cases involving tie-off events by sports fishing vessels from date of last service (06/06/2020) to this recovery. | 3DV44/41010Ref # 556 |  |  |  |
|  |  |  | Met-Ocean (PIRATA) |  |  |  |  |  |
|  |  |  | Met-Ocean (PIRATA) |  |  |  |  |  |
| 2021 | -1.9867 | -95.1350 | Met-Ocean(TAO) | 2S 95W, 32322, dm381a, 06/30/2021, 07:20 – 16:20 UTC. The buoy data signature was indicative of a tie-off or entanglement. Buoy camera imagery revealed an unidentified vessel near the buoy during the latter portion of the time frame of the incident. The 20m – 500m water temperature data and 300/500m pressure data were manually flagged as unreliable during the time frame of the entire event. Compass and wind direction were flagged for 07:20 – 12:50 UTC and 15:40 – 16:20 UTC. Total data loss: 9.0 hours, 0.375 days | dm381a/32322Ref # 538 | 0.38 |  |  |
| 2021 | 1.9883 | -169.9781 | Met-Ocean(TAO) | 2N 170W, 51305, dm408a, 06/24/2021, 01:00 – 04:40 UTC. The buoy data signature was indicative of an entanglement between the vessel’s longline gear and the buoy Mooring/Inductive Sensor Line. The water temperature from 125m – 500m and the 300m/500m pressure were manually flagged as unreliable during the time frame of the incident. Data Loss: 3.67 hours/0.061 days. | dm408a/51305Ref # 537 | 0.06 |  |  |
| 2021 | 27.9097 | -95.3447 | Met | 42019/2.1D03, 06/15/2021, 19:00 - 19:20 UTC. Buoy Camera imagery captured a vessel that appeared to be tied off to the buoy. No data loss was associated with this event. | 2.1D03/42019Ref # 536 |  |  |  |
| 2021 | 27.9097 | -95.3447 | Met | 42019/2.1D03, 06/12/2021, 18:10 - 20:10 UTC. Buoy Camera imagery captured a vessel that appeared to be tied off to the buoy. No data loss was associated with this event. | 2.1D03/42019Ref # 535 |  |  |  |
| 2021 | 28.8775 | -78.4850 | Met | 41010/3DV44, 05/26/2021, 02:10 - 09:10 UTC. An unknown sports fishing vessel was detected by nighttime Buoy Camera imagery in close proximity to the buoy. The nearly stationary position of the vessel in relation to the buoy over a 7-hour period suggests that the vessel was most likely tied-off to the buoy. All sensor data reported following the event as it had prior to the event. | 3DV44/41010Ref # 532 |  |  |  |
| 2021 | 0.0900 | -95.4667 | Met-Ocean(TAO) | 0 95W, 32321, dm380a, 06/03/2021, 09:10 – 12:40 UTC. The data signature from the buoy indicated that a purse seine pull, “slingshot”, operation had occurred. The 80m – 500m water temperature, 300m/500m pressure, and compass/wind direction were flagged as unreliable during the time frame of the incident. Data Loss: 3.5 hours, 0.146 days. | dm380a/32321Ref # 531 | 0.15 |  |  |
| 2021 | -1.9792 | -109.9881 | Met-Ocean(TAO) | 2S 110W, 32317, dm385a, 05/13/2021, 19:50 UTC – 05/14/2021, 07:20 UTC. The Data signature from the buoy was indicative of a purse pull (“slingshot”) operation. AIS analysis of the vessel and buoy tracks confirm a pull on the buoy by the suspect vessel. Total Data Loss: 11.5 hours, 0.479 days. | dm385a/32317Ref # 530 | 0.48 |  |  |
| 2021 | 42.2061 | -70.1433 | Met | 44018/3DV51, 03/10/2021, 15:50 UTC – 16:00 UTC. All payloads from the buoy ceased transmitting after 00:30 UTC, 03/11/2021. The last GPS position transmission was at 03/10/2021, 22:10 UTC. Compass tilt from the Extended Met Payload was indicative of a vessel collision with the buoy between 15:50 UTC and 16:00 UTC on 03/10/2021. Photos upon recovery of the buoy on 05/10/2021 confirmed evidence of a vessel strike above the solar panels on the buoy. | 3DV51/44018Ref #529 | TBD | TBD |  |
| 2021 | -1.9792 | -109.9881 | Met-Ocean(TAO) | 2S 110W, 32317, dm385a, 05/06/2021, 08:10 – 11:40 UTC. The data signature from the TAO buoy near 2S 110W was indicative of a longline entanglement or vessel tie-off. The 40m – 500m water temperature, 300m - 500m pressure, and compass and wind direction were manually flagged as unreliable for the time period of the event. Total Data Loss: 3.5 hours, 0.146 days. | dm385a/32317Ref # 528 | 0.15 |  |  |
| 2021 | 16.9083 | -81.4217 | Met | 42057/3D70, 03/09/2021, 17:00 – 18:00 UTC (transmission failure) 05/02/2021, 19:27 UTC (Recovery of topside equipment). Upon recovery of the topside equipment from the adrift buoy, the crew noted evidence of vandalism as follows: "This adrift buoy definitely seems to be a case of vandalism, as multiple cables were unplugged from the SCOOP battery as well as bolts being loosened on the can of the hull. …” Since the buoy was in an adrift status at the time of this incident, no real-time data was in release status. Therefore, there was no real-time data loss associated with this event. | 3D70/42057Ref # 527 |  |  |  |
| 2021 | 38.0936 | -129.9511 | Met | 46059/3D69, 04/18/2021, 18:53 – 18:54 UTC. All transmissions from the buoy ceased after the 04/18/2021, 18:40 UTC data transmission. AIS ship tracking indicated that the suspect vessel was likely involved in a collision with the buoy between 18:53 and 18:54 UTC on 04/18/2021. Update (1), 06/10/2021: Buoy 46059 possibly sighted by a container ship at location: 38° 20’ 28”N 131° 38’ 05”W, 88.5nm west of the mooring position for 46059. Data Loss to be determined. | 3D69/46059Ref # 525 | TBD | TBD |  |
| 2021 | -7.9842 | -124.9681 | Met-Ocean(TAO) | 8S 125W, 51308, dm345a, 03/26/2021, 02:35 UTC – Recovery Log. Deployed: 10/19/2019, 08:06 UTC. Upon recovery of this buoy, comments on the Recovery Log from the service crew indicated evidence of entanglement as follows: “Longline along the entirety of the nilspin as well as longline on spool T17097”. There are no indications of damage or permanent sensor degradation as a result of this entanglement and no data loss is directly attributable to this incident. | dm345a/51308Ref # 524 |  |  |  |
| 2021 | -2.0861 | -124.8631 | Met-Ocean(TAO) | 2S 125W, 51017, dm347b, 03/23/2021, 21:14 UTC (Recovery) - Deployed: 10/24/2019, 00:25 UTC. Comments from the Recovery Log of 03/23/2021 indicated evidence of vandalism as follows: “Longline on nilspin at 60m sensor. “ This entanglement could have occurred at any time during the deployment period. | dm347b/51017Ref #522 |  |  |  |
| 2021 | 0.0900 | -95.4667 | Met-Ocean(TAO) | 0 95W, 32321, dm380a, 04/08/2021, 10:00 – 12:10 UTC. The data signature from the buoy indicated that a purse seine pull, “slingshot”, operation had occurred. The 40m – 500m water temperature and 300m/500m pressure were flagged as unreliable from 10:00 – 12:10 UTC on 04/08/2021; and the compass, and wind direction were flagged from 10:00 – 13:30 UTC. Data Loss: 3.5 hours, 0.146 days | dm380a/32321Ref # 520 | 0.15 |  |  |
| 2021 | 0.0900 | -95.4667 | Met-Ocean(TAO) | 0 95W, 32321, dm380a, 04/07/2021, 10:10 – 12:30 UTC. The data signature from the buoy indicated that a purse seine pull, “slingshot”, operation had occurred. The 60m – 500m water temperature, 300m/500m pressure, compass, and wind direction data were flagged as unreliable from 10:00 – 12:30 UTC on 04/07/2021. Data Loss: 2.5 hours, 0.104 days | dm380a/32321Ref # 519 | 0.10 |  |  |
| 2021 | 0.0900 | -95.4667 | Met-Ocean(TAO) | 0 95W, 32321, dm380a, 04/03/2021, 10:20 – 11:10 UTC. Buoy Camera imagery went dark at 01:10 UTC on 04/03/2021 and remained dark thereafter, even during daylight hours on the following days, indicating that the camera had been covered. There was no immediate pull on the buoy subsequent to the camera covering. | dm380a/32321Ref # 517 |  |  |  |
| 2021 | -1.9867 | -95.1350 | Met-Ocean(TAO) | 2S 95W, 32322, dm381a, 04/01/2021, 23:30 UTC - 04/02/2021, 12:00 UTC. The data signature from the buoy was indicative of a purse seine pull (“sling-shot”) operation. The 40m – 500m water temperature, 300/500m pressure, compass, and wind direction data were manually flagged as unreliable during the time frame of the event. Total data loss: 12.5 hours, 0.521 days | dm381a/32322Ref # 515 | 0.52 |  |  |
| 2021 | 0.0033 | -139.8731 | Met-Ocean(TAO) | 0 140W, 51311, dm370a, Adrift 03/26/2021, 14:10 - 15:00 UTC; Recovered 03/30/2021, 17:23 UTC. The buoy went adrift near 15:00 UTC on 03/26/2021. Upon recovery, significant damage to all inductive line sensors was discovered and the nilspin (mooring line) was severed near the 70m mark. Essentially all inductive line sensor data was missing or unreliable following the adrift incident. Equipment Replacement Cost (parts only): $46,734.42 | dm370a/51311Ref # 514 | TBD | $47,734.42 |  |
| 2021 | -1.9792 | -109.9881 | Met-Ocean(TAO) | 2S 110W, 32317, dm385a, 03/30/2021, 10:40 – 18:00 UTC. The data signature from the TAO buoy near 2S 110W was indicative of an incidental entanglement between a vessel’s longline and the buoy’s mooring line. The 40m – 500m water temperature, 300m - 500m pressure, and compass and wind direction were manually flagged as unreliable for the time period of the event. Total Data Loss: 7.33 hours, 0.305 days. | dm385a/32317Ref # 513 | 0.31 |  |  |
| 2021 | 1.9883 | -169.9781 | Met-Ocean(TAO) | 2N 170W, 51305, dm408a, 03/19/2021, 04:30 – 12:30 UTC. The buoy data signature, along with several vessel zone alerts for AIS contacts, indicated a possible incidental entanglement. Data manually flagged as unreliable during the event: Water Temperature 125m – 500m, 300m/500m Pressure. Max Data Loss: 8.0 hours/0.33 days. | dm408a/51305Ref # 511 | 0.33 |  |  |
| 2021 | 5.0750 | -124.9269 | Met-Ocean(TAO) | 5N 125W, 51015, dm350a, 03/19/2021, 22:10 UTC – (Deployment Period: 10/27/2019, 14:12 UTC – 03/19/2021, 22:10 UTC). The recovery log of 03/19/2021 indicated evidence of vandalism as follows: “Top section severed at nilspin head, as well as long line along the nilspin and spool T15033.” All inductive line transmissions went missing after 03/27/2020, 04:00 UTC. Data Loss: 8586.17 hours, 357.76 days. (see IOI, Ref 364). | dm350a/51015Ref # 509 | 357.76 |  |  |
| 2021 | 8.0050 | -125.0931 | Met-Ocean(TAO) | 8N 125W, 51307, dm351a, 03/18/2021, 17:44 UTC, (Deployed: 10/28/2019, 14:30 UTC, Recovered: 03/18/2021, 17:44 UTC). Comments from the Recovery Log of 03/18/2021 indicated vandalism as follows: “Tower was missing from buoy as well as the top section being severed at the nilspin head. All of the top side electronics were lost at sea “ The buoy was on station upon recovery. Total Data Loss (from 04/16/2020, 15:40 UTC): 8066.33 hours, 336.1 days. Lost Equipment Replacement Cost (parts only): $10,539.40 | dm351a/51307Ref # 508 | 336.10 | $10,539.40 |  |
| 2021 | 0.0900 | -95.4667 | Met-Ocean(TAO) | 0 95W, 32321, dm380a, 03/05/2021, 00:10 UTC – 18:40 UTC. The data signature from the buoy was indicative of a purse seine pull (“Slingshot”) event. Camera covered prior to the event and uncovered following the event This was the third pull on this buoy in a seven-day period, as well as a pull on the buoy near 2S 95W on 02/28/2021. Total Data Loss: 18.5 hours, 0.771 days. | dm380a/32321Ref # 507 | 0.77 |  |  |
| 2021 | 0.0900 | -95.4667 | Met-Ocean(TAO) | 0 95W, 32321, dm380a, 03/01/2021, 23:50 UTC – 03/02/2021, 15:40 UTC. The data signature from the buoy was indicative of a purse seine pull (“Slingshot”) event. The Buoy Camera was covered prior to the event and uncovered following the event. This was the second pull on this buoy in a three-day period, as well as a pull on the buoy near 2S 95W on 02/28/2021. It is not certain if these incidents involve one vessel or multiple vessels. Total Data Loss: 15.83 hours, 0.66 days. | dm380a/32321Ref # 506 | 0.66 |  |  |
| 2021 | -1.9867 | -95.1350 | Met-Ocean(TAO) | 2S 95W, 32322, dm381a, 02/28/2021, 00:20 UTC - 12:20 UTC. The data signature from the buoy indicated a “classic” appearance associated with a purse seine pull (“sling-shot”) operation. The Buoy Camera was covered prior to the event and uncovered following the event. A distant purse seine vessel and one of its speed boats were visible in an image prior to the camera being covered. This incident may involve the same vessel that pulled the buoy at 0 95W on 02/25/2021 (see Ref #504), although this cannot be confirmed. Total data loss: 12.0 hours, 0.5 days | dm381a/32322Ref # 505 | 0.50 |  |  |
| 2021 | 0.0900 | -95.4667 | Met-Ocean(TAO) | 0 95W, 32321, dm380a, 02/25/2021, 23:20 UTC – 02/26/2021, 19:10 UTC. The data signature from the buoy was indicative of a purse seine pull (“Slingshot”) event. The camera was covered prior to the pull on the buoy and uncovered following the event. Total Data Loss: 19.83 hours, 0.826 days. | dm380a/32321Ref # 504 | 0.83 |  |  |
| 2021 | 32.5006 | -79.0994 | Met | 41004/3DV55, 02/23/2021, 12:54 UTC – 13:01 UTC. All payloads from the buoy ceased transmitting after 12:55 UTC, 02/23/2021. Indications were evident from AIS position reports that the suspect vessel likely came in contact with the buoy as the vessel drifted eastward near the buoy location. Data Loss: All transmits and data from the buoy after 12:50 UTC, 02/23/2021. (The last GPS position was received from the Ocean Payload at 12:55 UTC.) . Replacement cost estimate: $92,753.26. Data Loss: 3279.2 hours, 136.6 days. | 3DV55/41004Ref # 503 | 136.6 | $92,753.26 |  |
| 2021 | 28.8775 | -78.4850 | Met | 41010/3DV44, 02/12/2021, 05:10 - 10:10 UTC. An unknown sports fishing vessel was detected by Buoy Camera nighttime imagery in close proximity to the buoy. The nearly stationary position of the vessel in relation to the buoy over a 2-hour to 3-hour period suggests that the vessel was most likely tied-off to the buoy. All sensor data reported following the event as it had prior to the event. | 3DV44/41010Ref # 502 |  |  |  |
| 2021 | 4.9967 | -169.9631 | Met-Ocean(TAO) | 5N 170W, 51303, dm409a, 02/11/2021, 14:30 UTC – 02/12/2021, 00:10 UTC. Data signature from the buoy indicated a possible vessel tie-off or entanglement. The water temperature from 1m – 500m, the 300/500m pressure, 1m salinity/conductivity, and compass data were flagged as unreliable during the time frame of the event (wind direction was previously failed). Data Loss: 9.67 hours, 0.403 days. | dm409a/51303Ref # 501 | 0.40 |  |  |
| 2020 | -2.0067 | 165.0131 | Met-Ocean(TAO) | 2S 165E, 52002, dm358b, 09/03/2020, 16:51 UTC – Recovery Log (Deployed: 10/09/2019, 21:31 UTC). Comments on the recovery log by the servicing technician upon recovery of the buoy indicated vandalism as follows: “Monofilament fishing line tangled in bridle.” There was no real-time data loss associated with this event. | dm358b/52002Ref # 500 |  |  |  |
| 2021 | 1.9483 | -95.4733 | Met-Ocean(TAO) | 2N 95W, 32320, dm379a, 02/08/2021, 00:20 – 09:20 UTC. Data signature from the buoy indicated a “classic” appearance related to a Purse Seine Pull (“Slingshot”) operation. Water temperature data 40m and below, the 300/500m pressure data, and the compass/wind direction were flagged as unreliable during the time frame of the event. Total Data Loss: 9.0 hours, 0.375 days. | dm379a/32320Ref # 499 | 0.38 |  |  |
| 2020 | -7.9817 | 179.9050 | Met-Ocean(TAO) | 8S 180, 52316, dm360a, 09/19/2020, 07:17 UTC, Recovery Log. Deployment Period: 10/14/2019, 11:27 UTC – 09/19/2020, 07:17 UTC. The Service Crew comments from the Recovery Log upon recovery of the buoy indicated vandalism as follows: “Longline tangled in bridle.” No suspect vessel(s) could be determined. No data loss was attributed to this incident. | dm360a/52316Ref # 497 |  |  |  |
| 2020 | 8.0233 | -179.8919 | Met-Ocean(TAO) | 8N 180, 52315, dm366a, 09/12/2020, 15:50 UTC – Recovery Log, (Deployed: 10/20/2019, 22:55 UTC). The service crew comments on the Recovery Log for this buoy on 09/12/2020 indicated evidence of vandalism as follows: “TOP SECTION SEVERED AT HEAD”. Real-time transmission of inductive line sensors ceased at 23:00 UTC on 06/04/2020. | dm366a/52315Ref # 496 | 97.70 |  |  |
| 2021 | 1.9483 | -95.4733 | Met-Ocean(TAO) | 2N 95W, 32320, dm379a, 01/05/2021, 12:20 - 16:10 UTC. Data signature from the buoy was indicative of a possible tie-off event. All water temperature data 40m and below and the 300/500m pressure data were flagged as unreliable during the time frame of the event. Total Data Loss: 3.833 hours, 0.160 days. | dm379a/32320Ref # 491 | 0.16 |  |  |
| 2020 | 0.0900 | -95.4667 | Met-Ocean(TAO) | 0 95W, 32321, dm380a, 12/29/2020, 23:10 UTC – 12/30/2020, 13:50 UTC. The data signature from the buoy was indicative of a purse seine pull (“Slingshot”) event. Buoy camera imagery indicated that the camera was covered (bagged) between 22:50 and 23:00 UTC on 12/28/2020, just prior to the beginning of a previous event on that date. This latest event is the second in as many days at this location. The 20m – 500m water temperature, 300m/500m pressure, and wind/compass data were flagged as unreliable during the time frame of the event. Total Data Loss: 14.67 hours, 0.611 days. | dm380a/32321Ref # 490 | 0.61 |  |  |
| 2020 | 0.0900 | -95.4667 | Met-Ocean(TAO) | 0 95W, 32321, dm380a, 12/28/2020, 22:50 UTC – 12/29/2020, 11:20 UTC. The data signature from the buoy was indicative of a purse seine pull (“Slingshot”) event. Buoy camera imagery indicated that the camera was covered (bagged) between 22:50 and 23:00 UTC on 12/28/2020, at the beginning of the event. All sensor data continued to operate following the event as it had prior to the event. The 20m – 500m water temperature, 300m/500m pressure, and wind/compass data were flagged as unreliable during the time frame of the event. Total Data Loss: 12.5 hours, 0.521 days. | dm380a/32321Ref # 489 | 0.52 |  |  |
| 2020 | 0.0900 | -95.4667 | Met-Ocean(TAO) | 0 95W, 32321, dm380a, 12/16/2020, 02:30 – 16:40 UTC. The data signature from the buoy was indicative of a tie-off event. Buoy camera imagery captured a small fishing vessel near the buoy prior to the data signature and also detected lines and a float attached to the buoy toward the end of the event. The 20m – 500m water temperature, 300m/500m pressure, and wind/compass data were flagged as unreliable during the time frame of the event. Total Data Loss: 14.167 hours, 0.590 days. | dm380a/32321Ref # 482 | 0.59 |  |  |
| 2020 | 0.0111 | 165.0219 | Met-Ocean(TAO) | 0 165E, 52321, dm393a, 12/13/2020, 08:30 – 17:30 UTC. The buoy data signature was suggestive of a probable tie-off event. The water temperature for 125m-500m, 300m-500m pressure, 125m Salinity, and the 200m PSCM (point current meter) were flagged as unreliable for the time frame of the suspect event. Total Data Loss: 9.0 hours, 0.375 days. | dm393a/52321Ref # 480 | 0.38 |  |  |
| 2020 | 5.0625 | -94.9500 | Met-Ocean(TAO) | 5N 95W, 32303, dm378a, 12/10/2020, 00:10 – 11:50 UTC. The data signature from the buoy was indicative of a vessel tie-off event. The 60m – 500m Water Temperature, 300m - 500m Pressure, and Compass/Wind Direction were manually flagged as unreliable for the time period of the event. Total Data Loss: 11.67 hours, 0.486 days. | dm378a/32303Ref # 479 | 0.49 |  |  |
| 2020 | 28.5075 | -80.1850 | Met | 41009/3DV63, 12/10/2020, 20:10 – 21:10 UTC. An unknown sports fishing vessel was detected by Buoy Cam tied off to the buoy at Station 41009. No definite effects on data associated with this event could be determined. | 3DV63/41009Ref # 478 |  |  |  |
| 2020 | 27.9097 | -95.3447 | Met | 42019/2.1D03, 12/09/2020, 15:10 - 16:10 UTC. A sports fishing vessel was detected by Buoy Camera imagery tied off to the buoy.No data loss was associated with this event. | 2.1D03/42019Ref # 475 |  |  |  |
| 2020 | 27.9097 | -95.3447 | Met | 42019/2.1D03, 12/08/2020, 15:20 - ~19:10 UTC. A sports fishing vessel was detected by Buoy Camera imagery tied off to the buoy. Directional wave data was considered as unreliable for the time frame of the event. Total data loss: 3.833 hours, 0.16 days. | 2.1D03/42019Ref # 474 | 0.16 |  |  |
| 2020 | 30.0642 | -87.5514 | Met | 42012/3D72, 12/06/2020, 17:10 UTC. No anomalies in the buoy data were evident as a result of this event. | 3D72/42012Ref # 473 |  |  |  |
| 2020 | 0.0900 | -95.4667 | Met-Ocean(TAO) | 0 95W, 32321, dm380a, 12/05/2020, 04:00 UTC – 17:50 UTC. The buoy data signature indicated a “classic” appearance related to a purse seine pull (“sling-shot) operation. It appears that the buoy remained tied-off following return of the IM Line to a vertical position beneath the buoy for a period of about 6.5 hours. This was the second incident of this type within a three-day period. All sensor data continued to operate following the event as it had prior to the event. However, water temperature for 20m-500m and 300/500m pressure were flagged as unreliable from 12/05/2020, 04:00 UTC – 11:30 UTC. Compass/wind direction were flagged from 12/05/2020, 04:00 UTC – 17:50 UTC. Total Data Loss (all times included): 13.833 hours, 0.576 days. | dm380a/32321Ref # 472 | 0.58 |  |  |
| 2020 | 0.0900 | -95.4667 | Met-Ocean(TAO) | 0 95W, 32321, dm380a, 12/02/2020, 23:00 UTC – 12/03/2020, 16:30 UTC. The buoy data signature indicated a “classic” appearance related to a purse seine pull (“sling-shot) operation. It appears that the buoy remained tied-off following return of the IM Line to a vertical position beneath the buoy for a period of about 6.5 hours. The buoy camera was covered during the operation and uncovered afterward. At 16:40 UTC on 12/03/2020, off-time buoy camera imagery captured the speed boat leaving the scene after uncovering the camera. Water temperature for 20m-500m and 300/500m pressure were flagged as unreliable from 12/02/2020, 23:30 UTC – 12/03/2020, 10:10 UTC. Compass/wind direction were flagged from 12/02/2020, 23:00 UTC – 12/03/2020, 16:50 UTC. Total Data Loss (all times included): 17.833 hours, 0.743 days. | dm380a/32321Ref # 471 | 0.74 |  |  |
| 2020 | 8.0589 | -94.9486 | Met-Ocean(TAO) | 8N 95W, 43301, dm377a, 11/21/2020, 19:10 – 23:30 UTC (Transmits ceased after 11/22/2020, 06:00 UTC) - (Buoy adrift at time of incident). The data signature from the buoy is suggestive of a vessel tie-off. The buoy may have been towed for a brief 4.5 hour period. Data loss is not applicable since no data is being released due to the buoy’s adrift status. | dm377a/43301Ref # 463 |  |  |  |
| 2020 | 5.0625 | -94.9500 | Met-Ocean(TAO) | 5N 95W, 32303, dm378a, 11/20/2020, 12:10 – 18:10 UTC. The data signature from the buoy was indicative of a vessel tie-off event. The 60m – 500m Water Temperature, 300m - 500m Pressure, and Compass/Wind Direction were manually flagged as unreliable for the time period of the event. Total Data Loss: 6.0 hours, 0.25 days. | dm378a/32303Ref # 462 | 0.25 |  |  |
| 2020 | -1.9792 | -109.9881 | Met-Ocean(TAO) | 2S 110W, 32317, dm385a, 11/23/2020, 03:10 – 09:00 UTC. The data signature from the buoy was indicative of a purse pull (“slingshot”) operation. The 60m – 500m Water Temperature, 300m - 500m Pressure, and Compass/Wind Direction were manually flagged as unreliable for the time period of the event. Total Data Loss: 5.833 hours, 0.243 days. | dm385a/32317Ref # 461 | 0.24 |  |  |
| 2020 | 8.0589 | -94.9486 | Met-Ocean(TAO) | 8N 95W, 43301, dm377a, 11/12/2020, 00:00 – 01:00 UTC (Buoy adrift at time of incident). Buoy Camera imagery detected a vessel at the buoy at 11/12/2020, 00:00 UTC and later at 01:00 UTC. It appears that the latter visit involved removing the Buoy Camera and taking it aboard the vessel. Data loss is not applicable since no data is being released due to the buoy’s adrift status. However, it appears that the anemometer or anemometer stanchion may have been damaged during the evolution. | dm377a/43301Ref # 458 |  |  |  |
| 2020 | 0.0900 | -95.4667 | Met-Ocean(TAO) | 0 95W, 32321, dm380a, 11/07/2020, 21:20 UTC – 11/08/2020, 14:00 UTC. Data signature from the buoy indicated a “classic” appearance related to a purse seine pull (“sling-shot) operation. The buoy camera was covered or bagged during the event. A distant vessel was visible near the horizon near the time that the camera was covered and again when the camera was uncovered. No identifying markings could be detected on the images due to the distance of the vessel from the buoy. The water temperature for 20m-500m, compass/all wind data, air temperature/humidity and 300/500m pressure were flagged as unreliable due to the event. Total Data Loss: 16.67 hours, 0.695 days. | dm380a/32321Ref # 457 | 0.70 |  |  |
| 2020 | 8.0589 | -94.9486 | Met-Ocean(TAO) | 8N 95W, 43301, dm377a, 10/31/2020, 17:00 – 17:20 UTC. Buoy Camera imagery detected a vessel tied off to the adrift buoy. The buoy does not appear to be under tow. The vessel appears to be tying off to the buoy for fuel savings or assistance in their fishing operations. | dm377a/43301Ref # 452 |  |  |  |
| 2020 | 1.9483 | -95.4733 | Met-Ocean(TAO) | 2N 95W, 32320, dm379a, 10/22/2020, 23:40 UTC – 10/23/2020, 09:20 UTC. Data signature indicated a “classic” appearance related to a Purse Seine Pull (“Slingshot”) operation. The camera was covered prior to the operation and uncovered following the operation. All water temperature data 40m and below, the 300/500m pressure data, and the compass/wind direction were flagged as unreliable during the time frame of the event. Total Data Loss: 9.67 hours, 0.403 days. | dm379a/32320Ref # 450 | 0.40 |  |  |
| 2020 | 1.9483 | -95.4733 | Met-Ocean(TAO) | 2N 95W, 32320, dm379a, 10/14/2020, 22:40 UTC – 10/15/2020, 09:00 UTC. Data signature indicated a “classic” appearance related to a Purse Seine Pull (“Slingshot”) operation. The Buoy Camera was apparently covered prior to the operation and uncovered following the operation. Total Data Loss: 10.33 hours, 0.430 days. | dm379a/32320Ref # 447 | 0.43 |  |  |
| 2020 | 8.0589 | -94.9486 | Met-Ocean(TAO) | 8N 95W, 43301, dm377a, 10/11/2020, 16:10 – 22:10 UTC. Buoy Camera detected an unidentified LL F/V tied off to the buoy. Buoy 43301 went adrift: 06/27/2020, 01:00 UTC, shortly after deployment. The buoy has steadily drifted to the east-northeast and is within the Costa Rican EEZ, approximately 85nm southwest of Puntarenas, CR. There is no data loss associated with this event since no data from the buoy is being released due to the buoy's adrift status. | dm377a/43301Ref # 442 |  |  |  |
| 2020 | 8.0589 | -94.9486 | Met-Ocean(TAO) | 8N 95W, 43301, dm377a, 10/11/2020, 16:10 – 22:10 UTC. Buoy Camera detected an unidentified LL F/V tied off to the buoy. Buoy 43301 went adrift: 06/27/2020, 01:00 UTC, shortly after deployment. The buoy has steadily drifted to the east-northeast and is within the Costa Rican EEZ, approximately 85nm southwest of Puntarenas, CR. There is no data loss associated with this event since no data from the buoy is being released due to the buoy's adrift status. | dm377a/43301Ref # 441 |  |  |  |
| 2020 | 8.0589 | -94.9486 | Met-Ocean(TAO) | 8N 95W, 43301, dm377a, 10/11/2020, 12:50 – 14:10 UTC. Buoy Camera deteted an unidentified Costa Rican LL F/V tied off to the buoy. Buoy 43301 went adrift: 06/27/2020, 01:00 UTC, shortly after deployment. The buoy has steadily drifted to the east-northeast and is within the Costa Rican EEZ, approximately 85nm southwest of Puntarenas, CR. There is no data loss associated with this event since no data from the buoy is being released due to the buoy's adrift status. | dm377a/43301Ref # 440 |  |  |  |
| 2020 | 8.0589 | -94.9486 | Met-Ocean(TAO) | 8N 95W, 43301, dm377a, 10/10/2020, 19:10 UTC – 23:10 UTC. A LL F/V was detected by Buoy Cam tied-off to the adrift buoy. A flag marker for a floater attached to the buoy was also visible in the imagery. Buoy 43301 went adrift: 06/27/2020, 01:00 UTC, shortly after deployment. The buoy has steadily drifted to the east-northeast and is within the Costa Rican EEZ, approximately 85nm southwest of Puntarenas, CR. There is no data loss associated with this event since no data from the buoy is being released due to the buoy's adrift status. | dm377a/43301Ref # 439 |  |  |  |
| 2020 | 0.0900 | -95.4667 | Met-Ocean(TAO) | 0 95W, 32321, dm380a, 09/20/2020, 09:10 – 10:20 UTC. The data signature from the buoy was indicative of an entanglement or brief tie-off event. Total Data Loss: 1.167 hours, 0.049 days. | dm380a/32321Ref # 426 | 0.05 |  |  |
| 2020 | -4.9797 | -94.9833 | Met-Ocean(TAO) | 5S 95W, 32304, dm382a, 09/07/2020, 20:20 UTC – 09/08/2020, 03:40 UTC. Data signature from the buoy was indicative of an entanglement between a vessel’s longline and the buoy’s mooring line. Total Data Loss: 7.33 hours, 0.305 days. | dm382a/32304Ref # 425 | 0.31 |  |  |
| 2020 | -1.9792 | -109.9881 | Met-Ocean(TAO) | 2S 110W, 32317, dm385a, 09/11/2020, 11:30 – 17:10 UTC. The data signature from the TAO buoy near 2S 110W was indicative of a tie-off to the buoy or an incidental entanglement between a vessel’s longline and the buoy’s mooring line. No apparent permanent damage or data loss occurred as a result of this event. However, the 60m – 500m Water Temperature and 300m - 500m Pressure were manually flagged as unreliable for the time period of the event. Total Data Loss: 5.67 hours, 0.236 days. | dm385a/32317Ref # 424 | 0.24 |  |  |
| 2020 | 1.9483 | -95.4733 | Met-Ocean(TAO) | 2N 95W, 32320, dm379a, 09/17/2020, 21:30 UTC – 09/18/2020, 08:30 UTC. Data signature from the buoy indicated a “classic” appearance related to a Purse Seine Pull (“Slingshot”) operation. This was the second event at this location on consecutive days (see Report, Ref # 422). Total Data Loss: 11.0 hours, 0.458 days. | dm379a/32320Ref # 423 | 0.46 |  |  |
| 2020 | 1.9483 | -95.4733 | Met-Ocean(TAO) | 2N 95W, 32320, dm379a, 09/17/2020, 00:00 – 09:30 UTC. Data signature from the buoy indicated a “classic” appearance related to a Purse Seine Pull (“Slingshot”) operation. The camera was likely covered/bagged prior to the event. Total Data Loss: 9.5 hours, 0.396 days. | dm379a/32320Ref # 422 | 0.40 |  |  |
| 2020 | 28.8775 | -78.4850 | Met | 41010/3DV44, 09/16/2020, 00:10 - 07:10 UTC. An unknown sports fishing vessel was detected by BuoyCAM in close proximity to the buoy. The nearly stationary position of the vessel in relation to the buoy over a 7-hour period suggests that the vessel was most likely tied-off to the buoy. A brief anomaly in the compass heading was noted from 04:50 – 05:10 UTC, but did not appear to affect any reportable data. | 3DV44/41010Ref # 420 |  |  |  |
| 2020 | 0.0900 | -95.4667 | Met-Ocean(TAO) | 0 95W, 32321, dm380a, 09/07/2020, 02:10 – 05:30 UTC. The data signature from the buoy was indicative of a tie-off to the buoy. All water temperature data, the 300m/500m pressure and compass/wind direction were flagged as unreliable during the time frame of the event. Total Data Loss: 3.333 hours, 0.139 days. | dm380a/32321Ref # 419 | 0.14 |  |  |
| 2020 | 28.8775 | -78.4850 | Met | 41010/3DV44, 09/08/2020, 03:10 - 10:10 UTC. An unknown sports fishing vessel was detected by BuoyCAM in close proximity to the buoy. Although any tie-off lines were likely obscured by darkness, the nearly stationary position of the vessel in relation to the buoy over a 7-hour period suggests that the vessel was most likely tied-off to the buoy. | 3DV44/41010Ref # 418 |  |  |  |
| 2020 | 30.0642 | -87.5514 | Met | 42012/3D72, 09/04/2020, 14:10 - 15:10 UTC. Buoy Cam Imagery detected a sports fishing vessel tied off to the buoy. A tie-off line was clearly visible in the 09/04/2020, 14:10 UTC buoy camera image. No anomalies in the buoy data were evident as a result of this event. | 3D72/42012Ref # 417 |  |  |  |
| 2020 | 28.8775 | -78.4850 | Met | 41010/3DV44, 09/06/2020, 00:10 - 10:10 UTC. An unknown sports fishing vessel was detected by BuoyCAM tied off to the buoy for a 10-hour period overnight. This is likely the same vessel that was suspected of a tie-off to the buoy on the previous night of 09/05/2020. A tie-off line is clearly visible in the 09/06/2020, 10:10 UTC Buoy Cam image. | 3DV44/41010Ref # 416 |  |  |  |
| 2020 | 28.8775 | -78.4850 | Met | 41010/3DV44, 09/05/2020, 02:10 - 07:10 UTC. An unknown sports fishing vessel was detected by BuoyCAM in close proximity to the buoy. The nearly stationary position of the the vessel in relation to the buoy over a 2 to 3-hour period suggests that the vessel was most likely tied-off to the buoy. | 3DV44/41010Ref # 415 |  |  |  |
| 2020 | 14.7756 | -74.5478 | Met | 42058/3D80, 08/30/2020, 12:30 UTC – Ongoing (09/02/2020, 11:10 UTC: topside of buoy apparently stored on a stationary platform/pier).Buoy hull 3D80 was declared adrift from Weather Station 42058 at 18:00 UTC on 07/06/2020. The buoy drifted southwestward and became entangled (re-moored) near Serrana Bank (Colombian EEZ) in the southwestern Caribbean Sea on 08/10/2020. On 08/30/2020, Buoy Camera imagery from the buoy detected a small boat with the buoy in tow on the 12:30 UTC image. | 3D80/42058Ref # 414 |  |  |  |
| 2020 | 40.2508 | -73.1644 | Met | 44025/3DV24, 08/18/2020, 18:10 – 19:10 UTC. An unknown sports fishing vessel was detected by BuoyCAM tied off to the buoy at 44025. There does not appear that there were any adverse effects on any of the buoy data due to this event. | 3DV24/44025Ref # 412 |  |  |  |
| 2020 | 1.9633 | -125.0650 | Met-Ocean(TAO) | 2N 125W, 51016, dm349a, 08/12/2020, 04:10 – 05:20 UTC. The buoy data signature was indicative of a brief entanglement between a vessel longline and the buoy mooring/inductive sensor line. Total Data Loss: 1.167 hours, 0.049 days | dm349a/51016Ref # 409 | 0.05 |  |  |
| 2020 | 40.2508 | -73.1644 | Met | 44025/3DV24, 08/11/2020, 14:10 – 15:10 UTC. An unknown sports fishing vessel was detected by BuoyCAM tied off to the buoy at 44025. There was no apparent effect on any of the buoy data due to this event. | 3DV24/44025Ref # 408 |  |  |  |
| 2020 | 2.0481 | -110.0281 | Met-Ocean(TAO) | 2N 110W, 32316, dm387a: 08/09/2020, 15:00 – 19:00 UTC – Secondary Event 20:30 – 20:50 UTC.The data signature from the buoy indicated a “classic” appearance of a non-aggressive purse seine pull. Total Data Loss: 4.0 hours, 0.167 days | dm387a/32316Ref # 407 | 0.17 |  |  |
| 2020 | 5.0667 | -94.9433 | Met-Ocean(TAO) | 5N 95W, 32303, dm378a, 08/02/2020, 00:50 – 04:30 UTC. The buoy data signature indicated a “classic” appearance related to a tie-off event. All sensor data continued to operate following the event as it had prior to the event. However, the 300m and 500m water temperature/pressure, water temperature for 20m and 40m; compass/wind direction data were manually flagged as unreliable during the time of the event. Total Data Loss: 3.667 hours, 0.153 days. | dm378a/32303Ref # 403 | 0.15 |  |  |
|  |  |  |  |  |  |  |  |  |
| **Abbreviations:** PS – Purse Seine, LL – Long line, TO – Tie off, RCL – (Service) Recovery Log, USCG – U.S. Coast Guard, MCC – Mission Control Center (National Data Buoy Center)  |
| Note (1): We have observed that it is a common practice of vandals to cover (bag) the topside sensors on the TAO Array in an effort to cover a camera, even if there is no camera installed. This often results in failure of the air temperature and humidity data due to the “bagging”of the sensors. This practice has continued unabated.  |
| **Efforts taken against vandalism** | NDBC and the U.S. Cross Agency Buoy Vandalism Team continued to coordinate efforts with marine law enforcement agencies and fishery offices to bring damaging buoy vandalism events to a higher level of attention and in some cases appropriate legal actions. NDBC has maintained a registry of buoy vandalism events with cases that have been fully investigated and documented from 2017 forward. The registry now contains over 500 entries for events and suspect events involving NDBC assets. NDBC continued to update and expand the use of Buoy Cameras on Coastal Weather Buoys. NDBC recovered 12 of 13 Trail Cameras that were deployed on the 95W TAO Line. The review of these images provided valuable information on fishing activity near these buoys that would otherwise have gone undetected. NDBC also deployed six GEN II cameras on the 95W Line of the TAO Array. |
| **Awareness meeting Organised** |  |
| **Suggestions (if any)** |  |
| **Photos on Vandalism** | (please include pictures if available; and email electronic versions to dbcp-tc@jcommops.org and karen.grissom@noaa.gov )[Images included separately] |

Note: It is recommended that this form is filled in electronically and returned electronically to JCOMMOPS (ljiang@ocean-ops.org). A template of the form can be downloaded from the following ftp site: ftp://ftp.wmo.int/Documents/PublicWeb/amp/mmop/documents/dbcp/templates/Format-DBCP-Buoy-Vandalism-Reports.doc