

## 1 **Supplementary Materials**

- 2 In the following, the plots for cases B, C, D and E in tab. 1, relative to the
- 3 analysis fo background signals as described in section 3.1. For the analysis
- 4 fo these plots, we refer to the main body of the paper

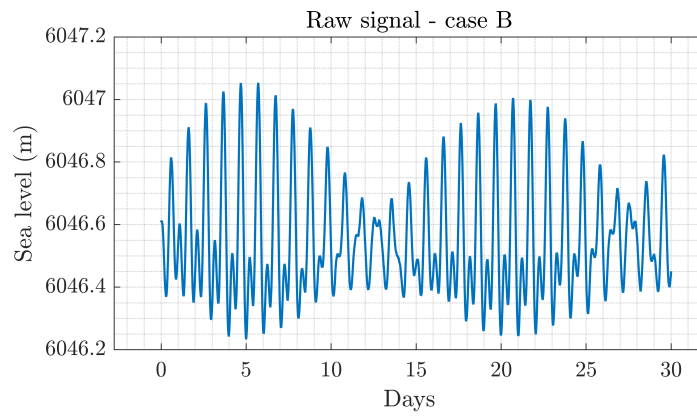


Fig. SI 1: Raw data from DART 52402 for the month of July 2016.

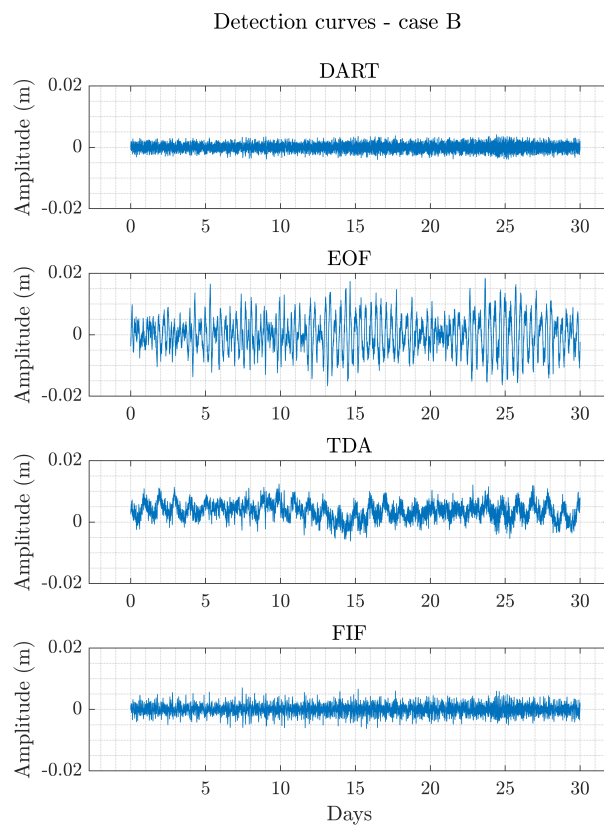


Fig. SI 2: Detection curves for each detection technique for DART 52402, July 2016 (fig. SI 1).

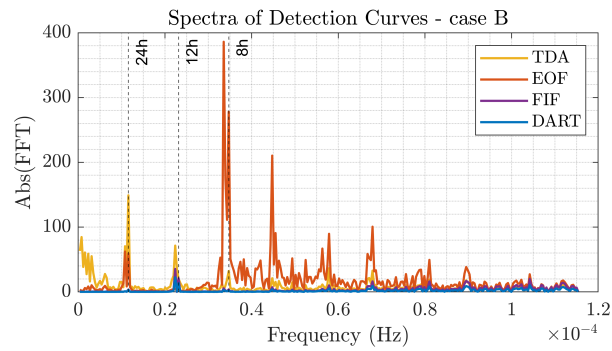


Fig. SI 3: Detection curves for each detection curve in fig. SI 2, relative to data from DART 52402, July 2016 (fig. SI 1).

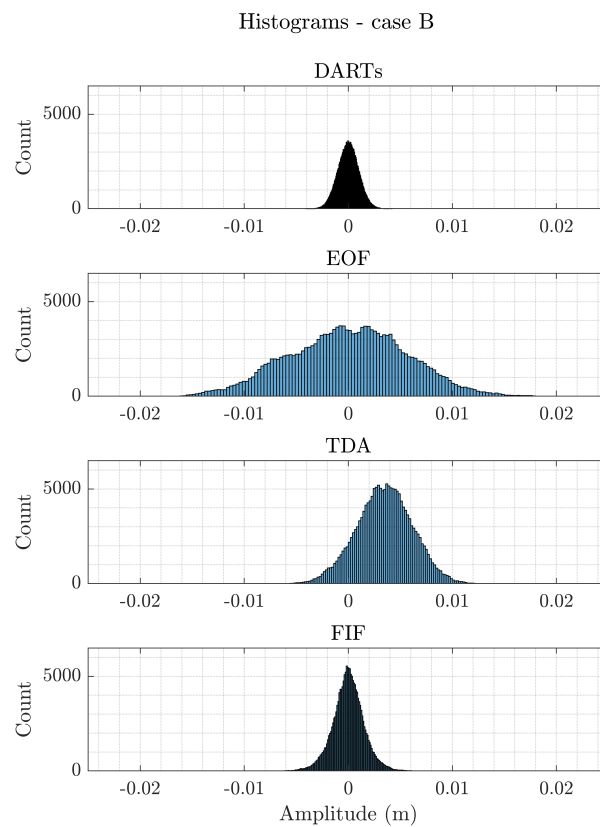


Fig. SI 4: Histograms of each detection curve in fig. SI 2, relative to data from DART 52402, July 2016 (fig. SI 1).

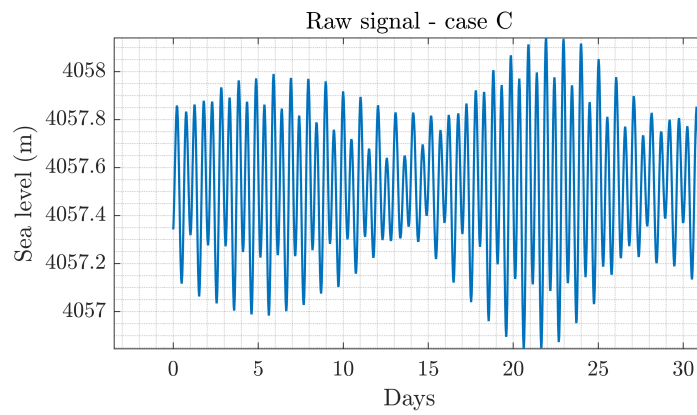


Fig. SI 5: Raw data from DART 32403 for the month of January 2019.

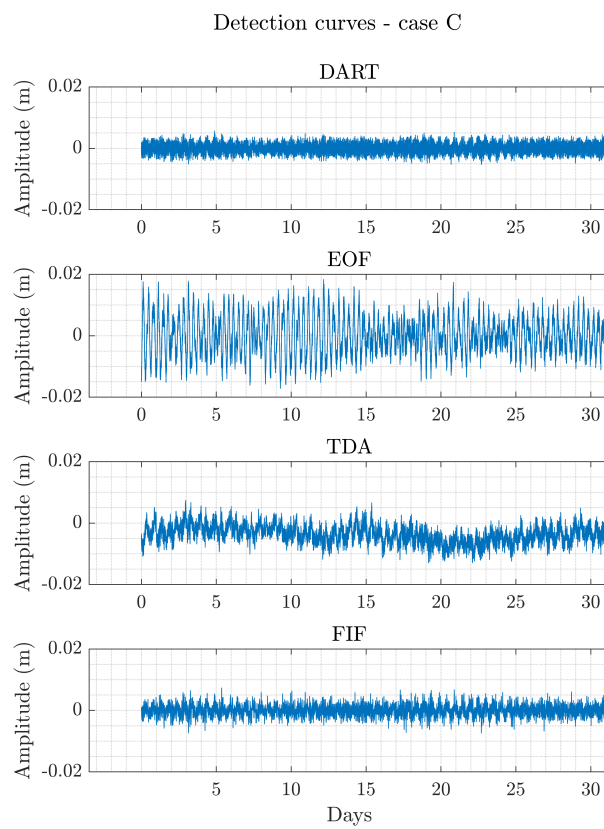


Fig. SI 6: Detection curves for each detection technique for DART 32403, January 2019 (fig. SI 5).

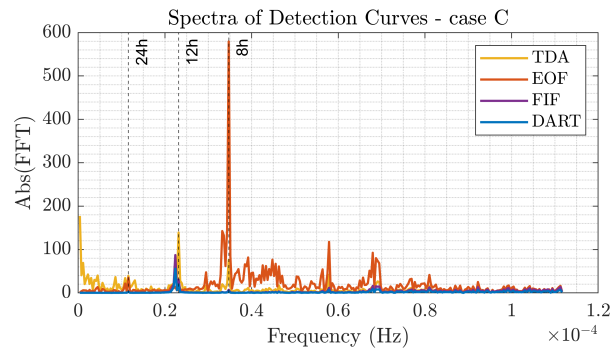


Fig. SI 7: Detection curves for each detection curve in fig. SI 6, relative to data from DART 32403, January 2019 (fig. SI 5).

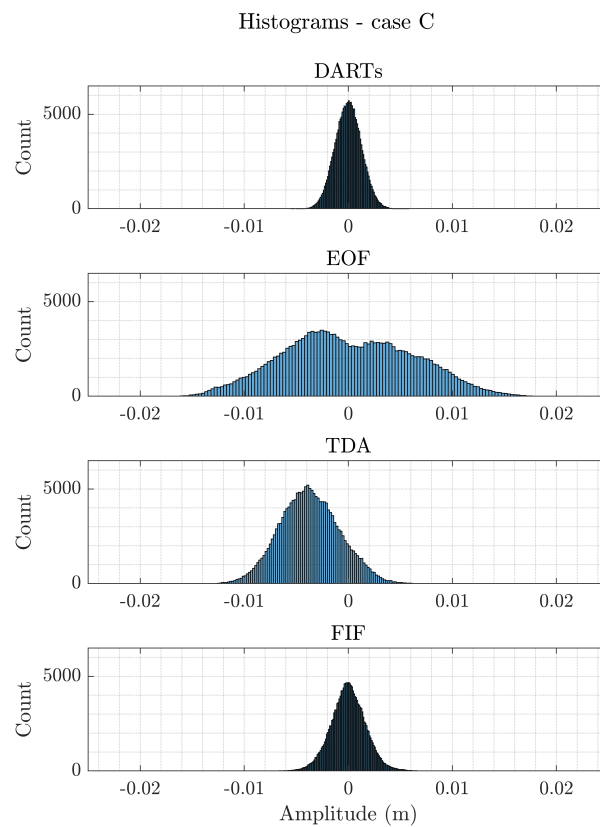


Fig. SI 8: Histograms of each detection curve in fig. SI 6, relative to data from DART 32403, January 2019 (fig. SI 5).

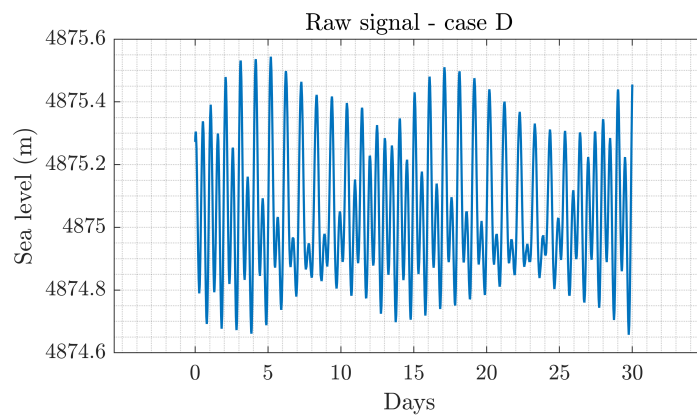


Fig. SI 9: Raw data from DART 51407 for the month of 15th April to 14th May 2022.

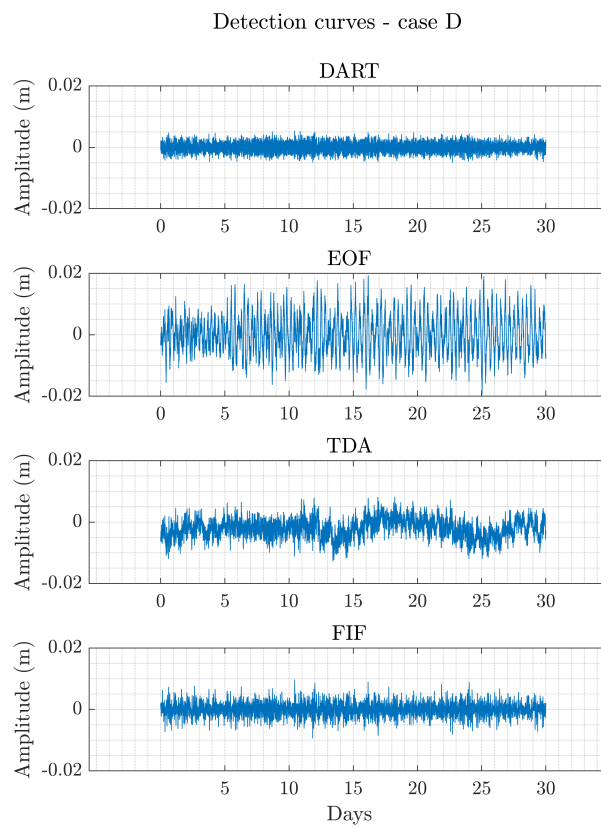


Fig. SI 10: Detection curves for each detection technique for DART 51407, 15th April to 14th May 2022 (fig. SI 9).

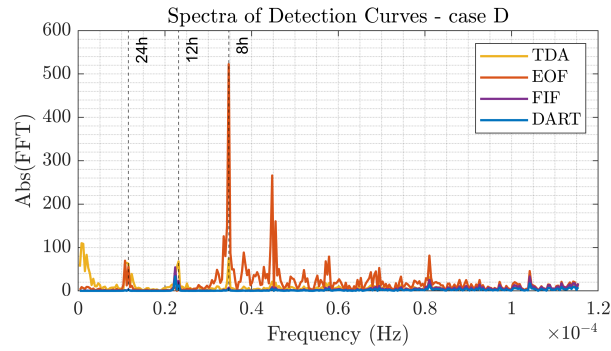


Fig. SI 11: Detection curves for each detection curve in fig. SI 10, relative to data from DART 51407, 15th April to 14th May 2022 (fig. SI 9).

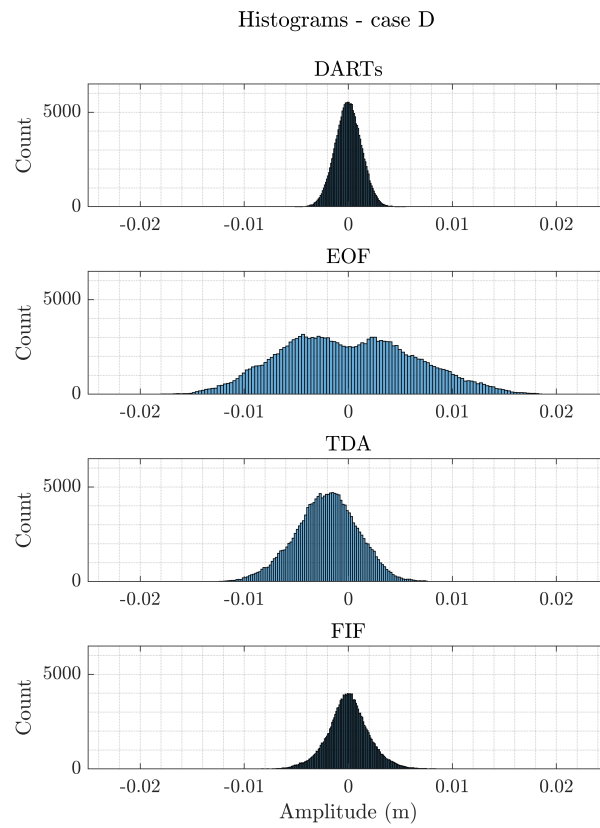


Fig. SI 12: Histograms of each detection curve in fig. SI 10, relative to data from DART 51407, 15th April to 14th May 2022 (fig. SI 9).

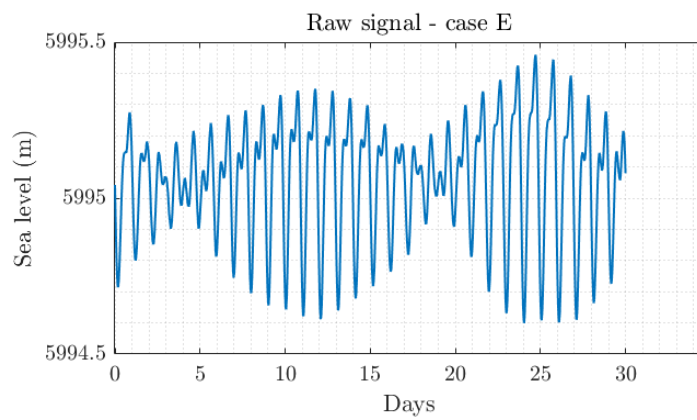


Fig. SI 13: Raw data from DART 21413 for the month of June 2021.

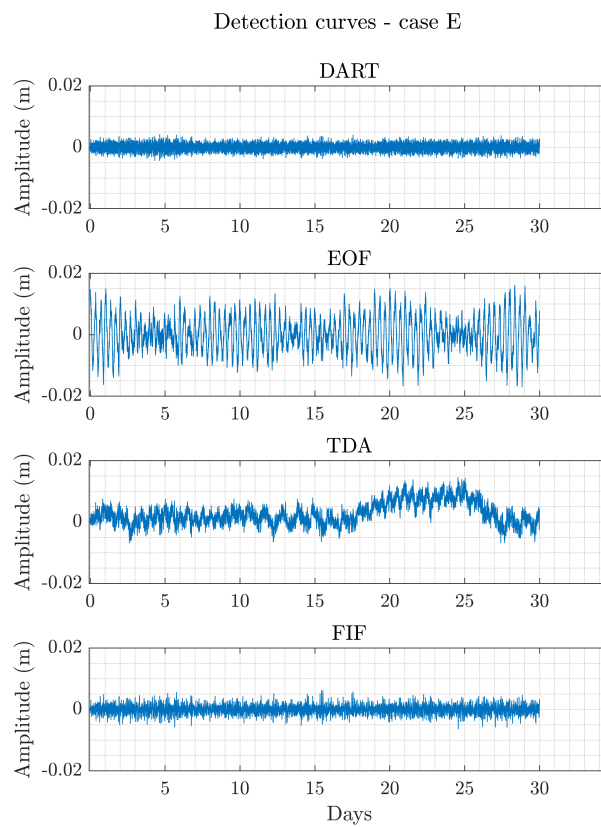


Fig. SI 14: Detection curves for each detection technique for DART 21413, June 2021 (fig. SI 13).



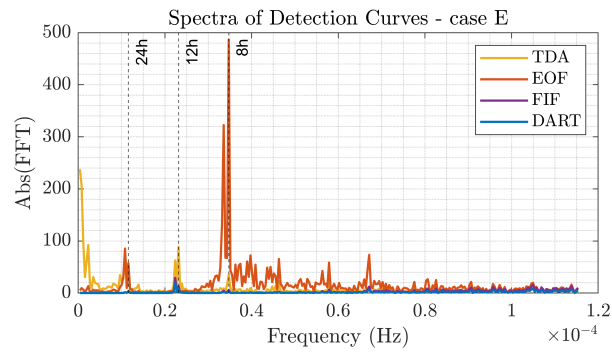


Fig. SI 15: Detection curves for each detection curve in fig. SI 14, relative to data from DART 21413, June 2021 (fig. SI 13).

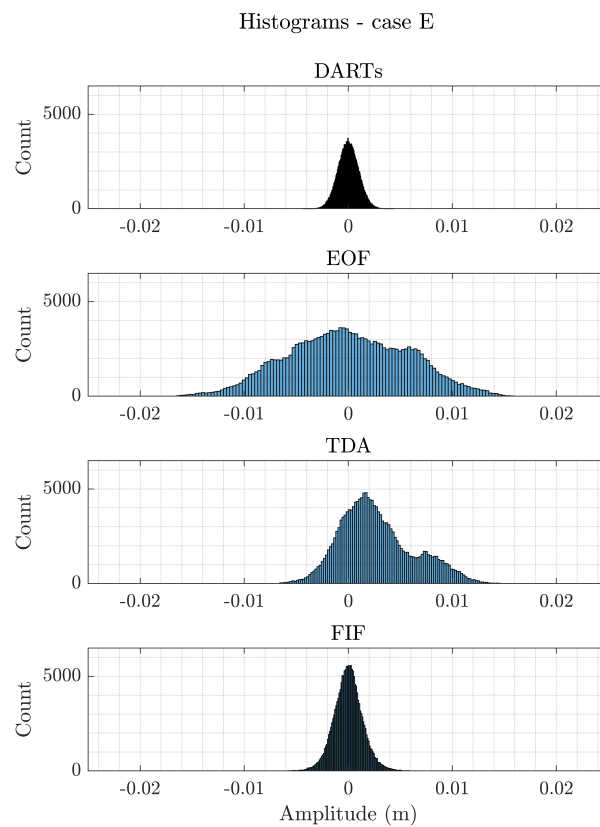


Fig. SI 16: Histograms of each detection curve in fig. SI 14, relative to data from DART 21413, June 2021 (fig. SI 13).