

## **CTBTO's contribution to the search of the missing Argentine submarine ARA San Juan**

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The Argentine submarine ARA San Juan went missing on 15th November 2017. The last confirmed contact was from a location around 600 kilometres offshore the San Jorge Gulf, Argentina. In order to provide information which could potentially help in the search for the ARA San Juan, CTBTO analysed data recorded by its International Monitoring System (IMS). Two IMS hydroacoustic hydrophone stations, namely HA10 in the Atlantic Ocean and HA04 in the southern Indian Ocean, recorded an unusual signal of unknown nature which originated at the vicinity of the last known location of the ARA San Juan. On 1st December 2017, in order to confirm the accuracy of the location of this acoustic anomaly, the Argentine Navy deployed a depth charge to the North of the last known position of the submarine. This signal was also detected by the same two IMS hydrophone stations and localized to within 37 km of the declared depth charge location. On 17th November 2018, the ARA San Juan was found on the seabed at 900 metres depth, very close to the location originally indicated by CTBTO. This presentation reviews the equipment and signal analysis employed by the scientific team at CTBTO to accomplish this feat.

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