

Bornemann, Horst (2014) Dive, time at surface, absolute (DTASA) - Description of parameter, Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research, Bremerhaven, hdl:[10013/epic.26919.d001](https://hdl.handle.net/10013/epic.26919.d001)

Parameter

Dive, time at surface, absolute [min] *Abbreviation: DTASA* *Parameter no: 29440*

Satellite transmitters usually have a seawater conductivity sensor (SCS). The sensor monitors whether the unit is submerged or above the sea surface. Conductivity readings at the SCS terminals can be used to switch the transmitter into certain modes, e.g. "transmission" or "sleep". It can also be used to monitor at-surface intervals or haul-out periods on land or ice. Depending on the manufacturer of the transmitter, the conductivity sensor can be matched with user-defined threshold-depths for transmitting to the polar-orbiting satellites at different repetition rates. The repetition rate may be set to shift from, e. g. approximately 90 s intervals (on-land interval denoted as "dry" or "0") when the sensor is disconnected for a user-defined number of consecutive transmission intervals to approximately 50 s (at-sea interval denoted as "wet" or "1") or vice versa.

In accordance with data derived from satellite transmitters of several manufacturers we use processed data on the animal's at-surface time or haul-out on land or ice in different formats and at varying resolutions.

At-surface *condition* at low resolution shows the amount of time [min] an animal spent at the surface over the last six hours. The amount of time does not need to be consecutive. This configuration is optional for SDR-T6, T10 or T16 tags manufactured by Wildlife Computers, and is part of the tags' status message. The data are associated with parameter 2162 *Dive, depth frequency* (DDF).

Data collected using Kiwisat tags manufactured by SIRTRACK show the length of the time [min] an animal spent at the surface (i.e. the total time spent "dry") over the 24 hours of the previous day. Thus if the value is 1440, this indicates that the PTT was dry the entire previous day according to the time stamp.

At-surface *condition* at absolute time shows the length of the time [min] following the preceding dive and before the next dive or event. Data collected using Series 9000 SRDLs follow this configuration. These data do not have an Argos quality flag, as they have been subjected to a filter algorithm defined by Sea Mammal Research Unit.

It is imperative to read the "Further details" section of each event label prior to data retrieval and analyses. The section summarizes the hardware configuration and the user-defined settings upon deployment. For technical specifications on hard- or software configurations of the different satellite transmitters you have to consult the respective manufacturers.