

Subsurface float data

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On this page, you will find a compiled data set of RAFOS and SOFAR float data. The data set is currently available in Matlab binary format, and a NetCDF data format will be added in the near future.

The file contains:

Experiments: 52
Floats: 2,193
Measurements: 1,402,840

Variables:

expList:	Name of experiment	1 per Experiment {cell}
expPI:	Principal Investigator	1 per float {cell}
expOrg:	Affiliation of the PI	1 per float {cell}
expName:	Abbreviated experiment name	1 per float {cell}
fltType:	Type of float	1 per float {cell}
indexExp:	Index number assigned to experiment	2,193 x 1 double [range 1 - 52]
indexFlt:	Index number assigned to each float	2,193 x 1 double [range 1-2,193]
lat:	Latitude (degrees), negative = South	measurements x float {cell}
lon:	Longitude (degrees), negative = West	measurements x float {cell}
p:	Pressure (dbar)	measurements x float {cell}
dtnum:	Time, Matlab datenum format	measurements x float {cell}
t:	Temperature (degrees C)	measurements x float {cell}
u:	Eastward component of velocity (m/s)	measurements x float {cell}
v:	Northward component of velocity (m/s)	measurements x float {cell}

Changes to the latest data set include:

1. The following variables have been omitted from the data:
 - a. Filename
 - b. Quality control flags
 - c. The IMEI number for each float, 'id'
 - d. Status variable
 - e. Start time and End time
 - f. Start position and End position

2. The following variables have been renamed:

<u>Old Name</u>	<u>New Name</u>
dir_pi	expPI
dir_org	expOrg
dir_exp	expName
dir_type	fltType

3. The following variables have been added to the data file:

- a. expList – The full name of the experiment
- b. indexExp – The unique number assigned to each experiment (1-52).
- c. indexFlt – The unique number assigned to each float (1-2,193).

Note: Each float is assigned to an experiment number and a unique float number.

4. The current data file has been modified to only include data collected from SOFAR and RAFOS floats. Data collected with ALACE, PALACE, MARVOR, or VCMs has been removed since the data are now available in the PANGAEA data repository. <https://www.pangaea.de>