PRODUCT USER MANUAL

SOCIB DATA CATALOG

Discover, Visualize and Download multiplatform observations
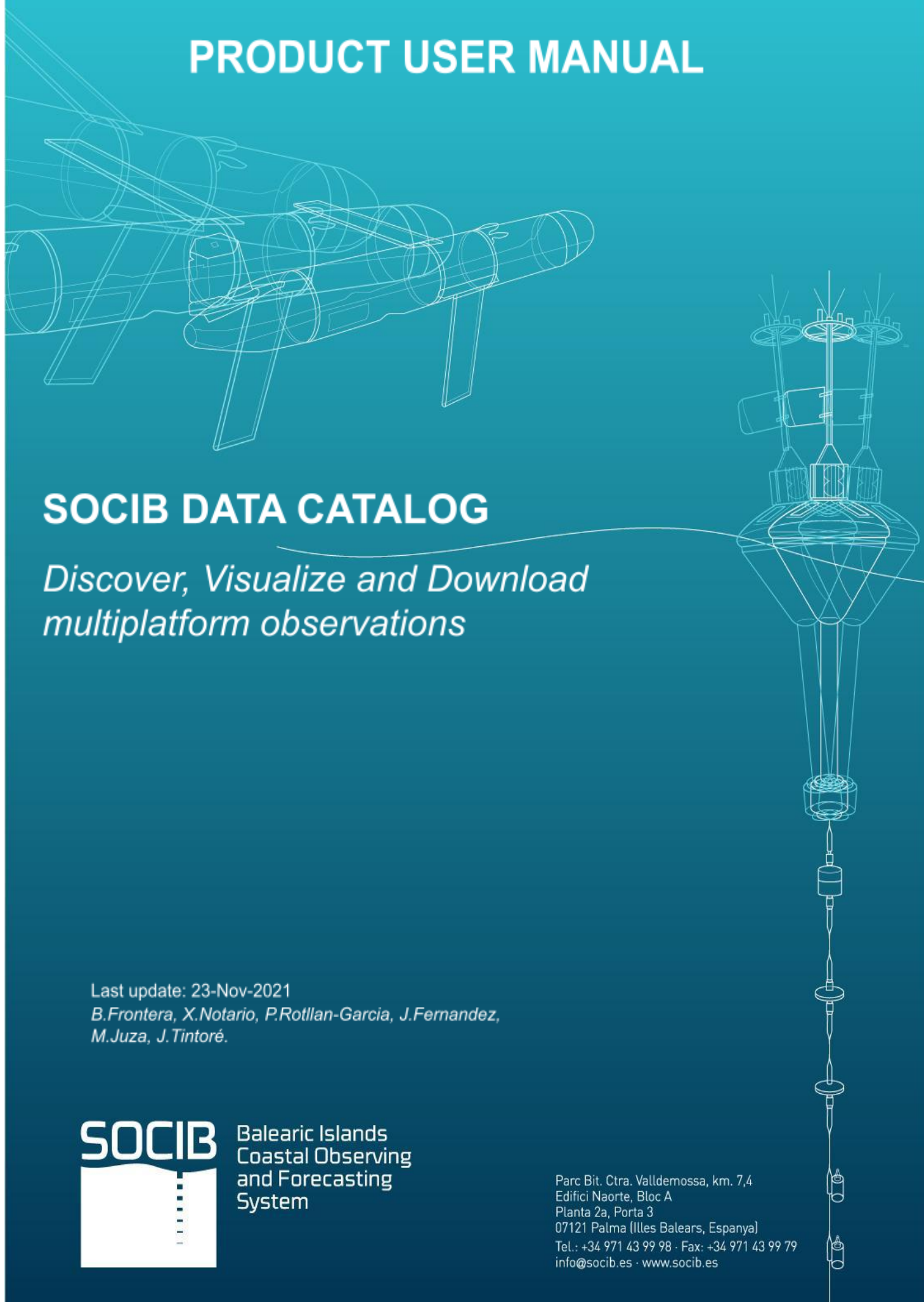
SOCIB Balearic Islands
Coastal Observing
and Forecasting
System

1. Introduction

SOCIB Data Catalog is a browser-like application built on top of the SOCIB API services that enables a friendly discovery of the data-products available at SOCIB Data Repository.

SOCIB data products are collections of datasets wrapped together to represent the outcome of certain observation programs, campaigns and projects etc. The underlying sources (the deployment of instruments/platforms at certain points operating over a while) of the datasets included in the product can also be explored and its data visualized. For data-products with Digital Object Identifiers (DOIs), the available versions of the data-products are also exposed to facilitate its download.

Both the SOCIB Data Catalog and SOCIB API stand as the most significant demonstration of the SOCIB Research Infrastructure commitment toward the so-called FAIR principles, following the steps of fellow institutions and programs with national and international projections (i.e. Marine Technology Unit Data Service (UTM-CSIC) Data-Catalog, Marine Institute Data-Catalog, Coriolis Data-Catalog and Integrated Ocean Observing System (IOOS) Data-Catalog).

SOCIB Data Catalog is the recommended point of entry for non-operational users that are interested in the oceanographic data produced by the observing facilities of the Balearic Islands Coastal Observing and Forecasting System (SOCIB). Operational users are encouraged to consider this application as a Use Case of SOCIB API, the actual service to be used for accessing data in an operational way.

2. Main functionalities

SOCIB Data Catalog consists of two main pages:

- <u>The landing page</u>: this page (Figure 1) is the default access point for users to discover all SOCIB data products. It is a paginated product listing that exposes for each one some distinctive metadata and enables filtering (by name, temporal coverage, variable, platform, instrument and spatial coverage). The application name ("Data Catalog") responds to the overall layout of this page.

Figure 1. Data Catalog landing page.

- <u>The detail page</u>: this page focuses on a particular product providing general information about it (Figure 2) such as name, description, time coverage, Digital Object Identifier (if any), credit & attributions and associated publications (if any).

Figure 2. illustration of Data-Product dedicated page: general information.

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This page provides as well the statement to properly:

- *acknowledge* SOCIB, in case of using the data downloadable through the product *data-sources* (Figure 3) tab.
- *cite* particular versions of the product, in case of using the data downloadable through the product *versions* (Figure 4) tab, only available for products with a Digital Object Identifier (DOI).

Users interested in reproducibility shall focus better on products with DOIs, as for those there is a commitment of long-term preservation. In such cases, please rely solely on the data files included in the downloadable versions available in the aforementioned product *versions* tab. The resulting .zip file is enriched with a change log and a index_file.txt that will help users, respectively, to properly referencing the version of the data-product downloaded (as well as keep track of its evolution) and to navigate through all the files composing it.

Figure 3. Illustration of Data-Product dedicated page: product data-sources tab.
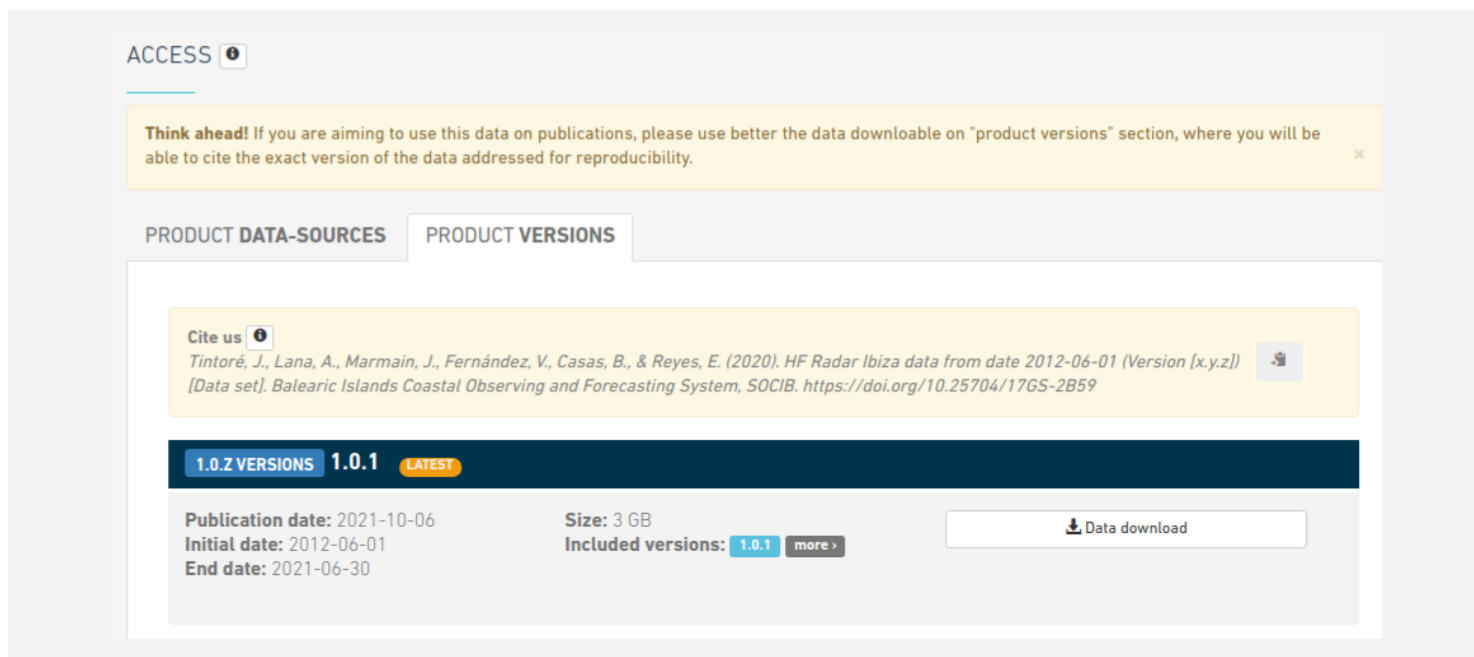
Figure 4. Illustration of Data-Product dedicated page: product versions tab.

From the product data-sources tab and by clicking on 'Plot Data', users can also have a quick view to the data streams provided by each data source[1] contributing with data to the product (Figure 5). A list of alternative accesses can be found by clicking on 'Access Data'.

Depending on the nature of the data source[1] the metadata displayed might vary (i.e instrument name will be missing from aggregation-datasets, instrument type and name will be missing from platform-based datasets).

1. *Types of data sources:*
- *<u>deployments:</u> platform unit (name and type) and instrument unit (name and type) ensemble providing the data stream. The time covered by this kind of source is conditioned by the ensemble endurance and will terminate when one of the units is replaced. The replacement of instrument units is regularly scheduled to guarantee a sustained monitoring of a given site and therefore the data resulting from these sources are usually short data series.*
- *<u>aggregations:</u> platform unit (name and type) and instrument type (no particular unit to be named) ensemble providing the data stream. The time covered by this kind of source is not conditioned by the replacement of the instrument unit in the ensemble, and will terminate only on a replacement of the platform unit: a very rare event. The data resulting from these sources are usually quite long data series.*
- *<u>platforms:</u> platform unit (name and type) providing the data streams whatever the associated instruments (no detail on name nor type). The time covered by this kind of data sources, as in the case of the aggregations, will terminate only on a replacement of the platform unit: a very rare event. The data resulting from these sources are usually quite long data series.*
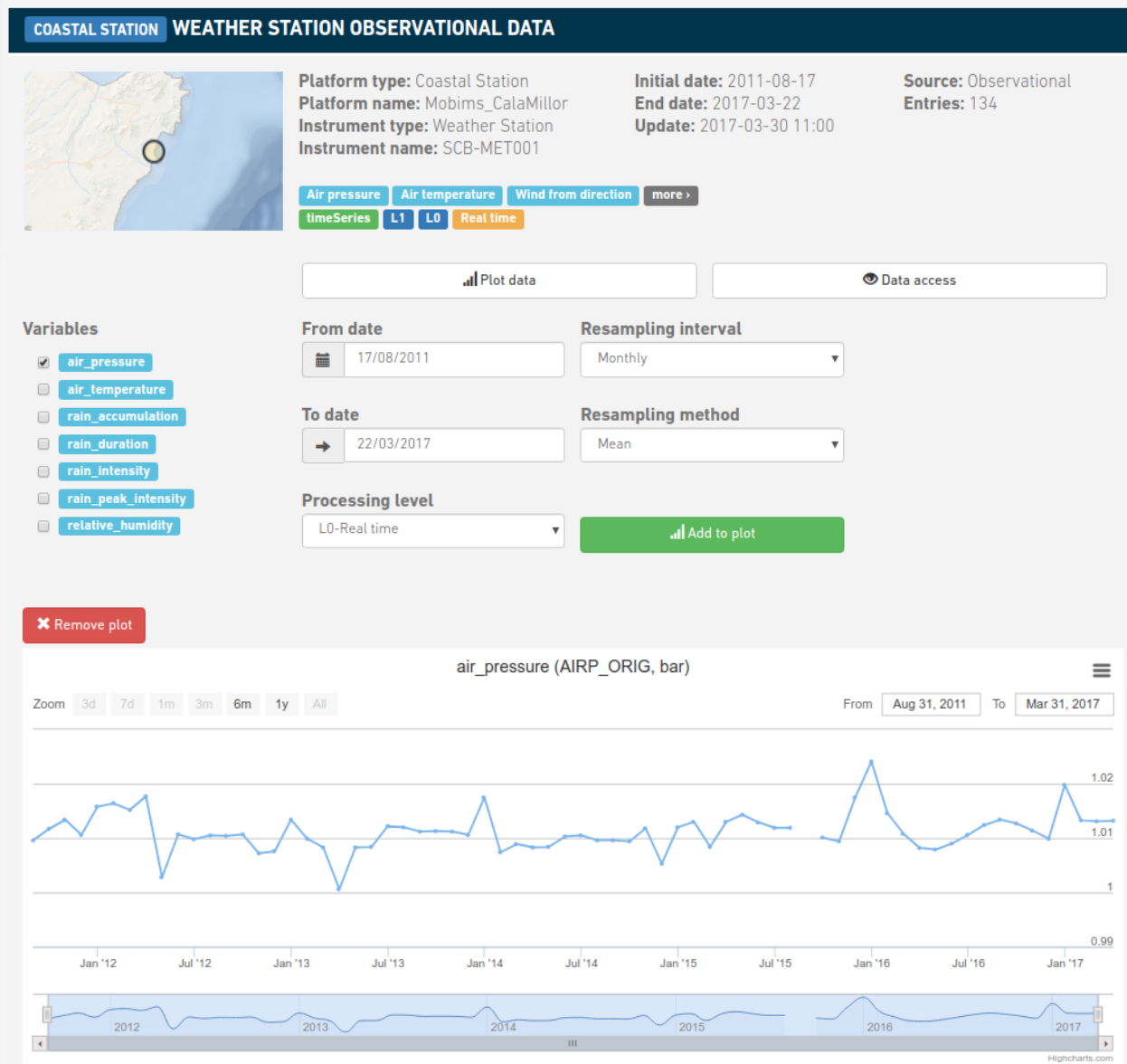
Figure 5. Plotting the air pressure monthly mean of a real time (L0) dataset.

3. Terms of use

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- the original provider of the data is acknowledged appropriately by means of the "ACKNOWLEDGE US" statement (case of the data accessed through the "data-sources" tab).
- the original data is cited appropriately by means of the "CITE US" statement (case of the data accessed through the "versions" tab).

For further details on license, acknowledge and citation users are encouraged to read the notes displayed on clicking the "info" button provided next to "ACCESS" "ACKNOWLEDGE US" and "CITE US" titles respectively.