

GPS data archiving and management tools are being developed to facilitate the tasks of:

1. Downloading data from stations
2. Serving data to authorized users
3. Documenting site metadata and field visits.

Tectonics-IMS website portal

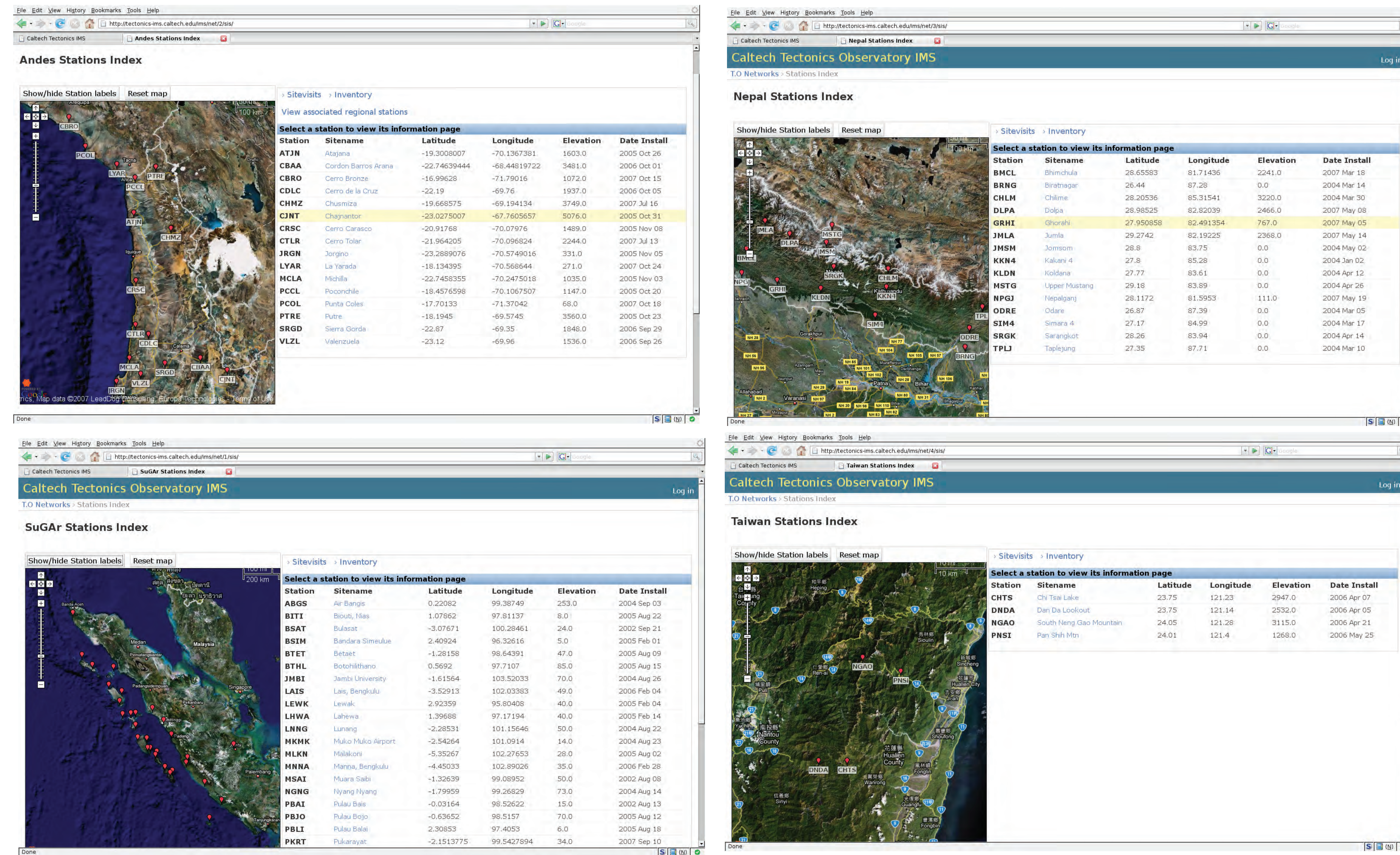


Figure 1. The Caltech Tectonics-IMS website portal for inventory and maintenance documentation. Top-left: Andean array; top-right: Nepal array. Bottom-left: Sumatran array; bottom-right: Taiwan array. Each station links to its own information page. In all 4 images, the Google map shows the station locations.

Data Collection:
For online stations, raw data files are automatically downloaded and converted to RINEX format. For offline stations, a site visit is made to manually download and push the data to the Caltech server. The data availability catalogue is stored in a PostgreSQL database for each geodetic array.

Serving Data:
Access to the RINEX files is restricted by IP address. Authorized users may download the data via wget provided they have registered IP addresses.

Documenting site metadata and field visits:
The Tectonics-IMS website is a database-driven application for the documentation of field maintenance and station inventory. Each geodetic network has its own portal and field documentation site. Users authorized for a particular network can create new stations in the database, and record their field activities. Please visit <http://tectonics-ims.caltech.edu/ims/> for more information.

Projects under development:
A web application is being developed to allow users to record GPS time series metadata (e.g., hardware jump events) in a central database.

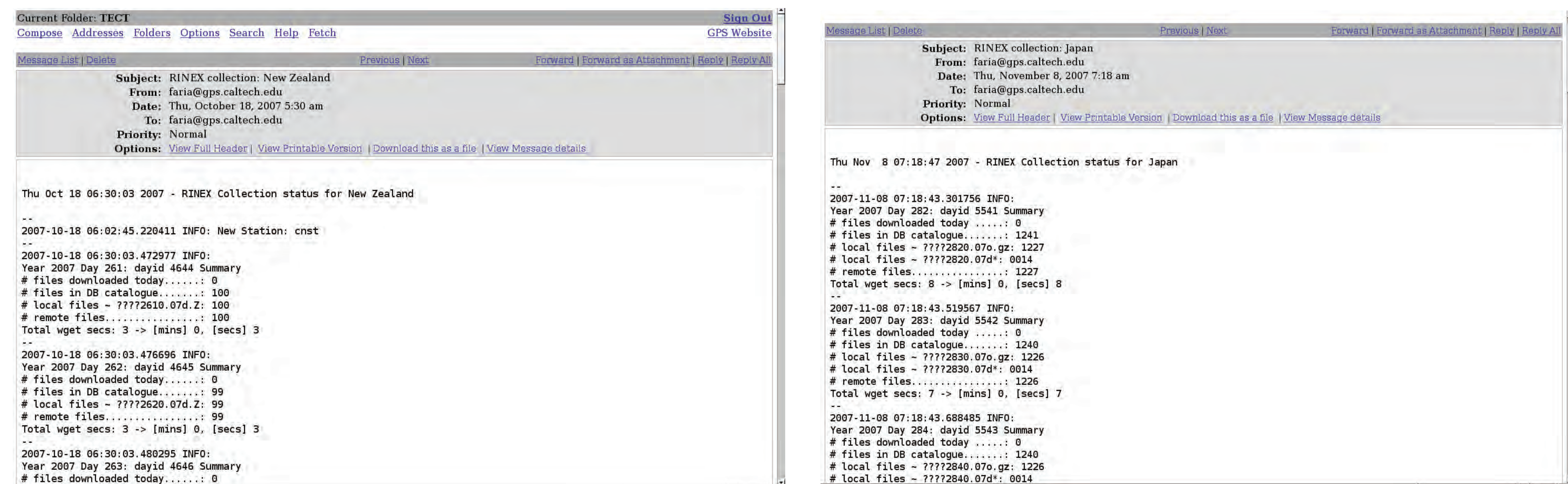


Figure 3. Daily email reports of the automated RINEX data collection and archiving of Japan and New Zealand.

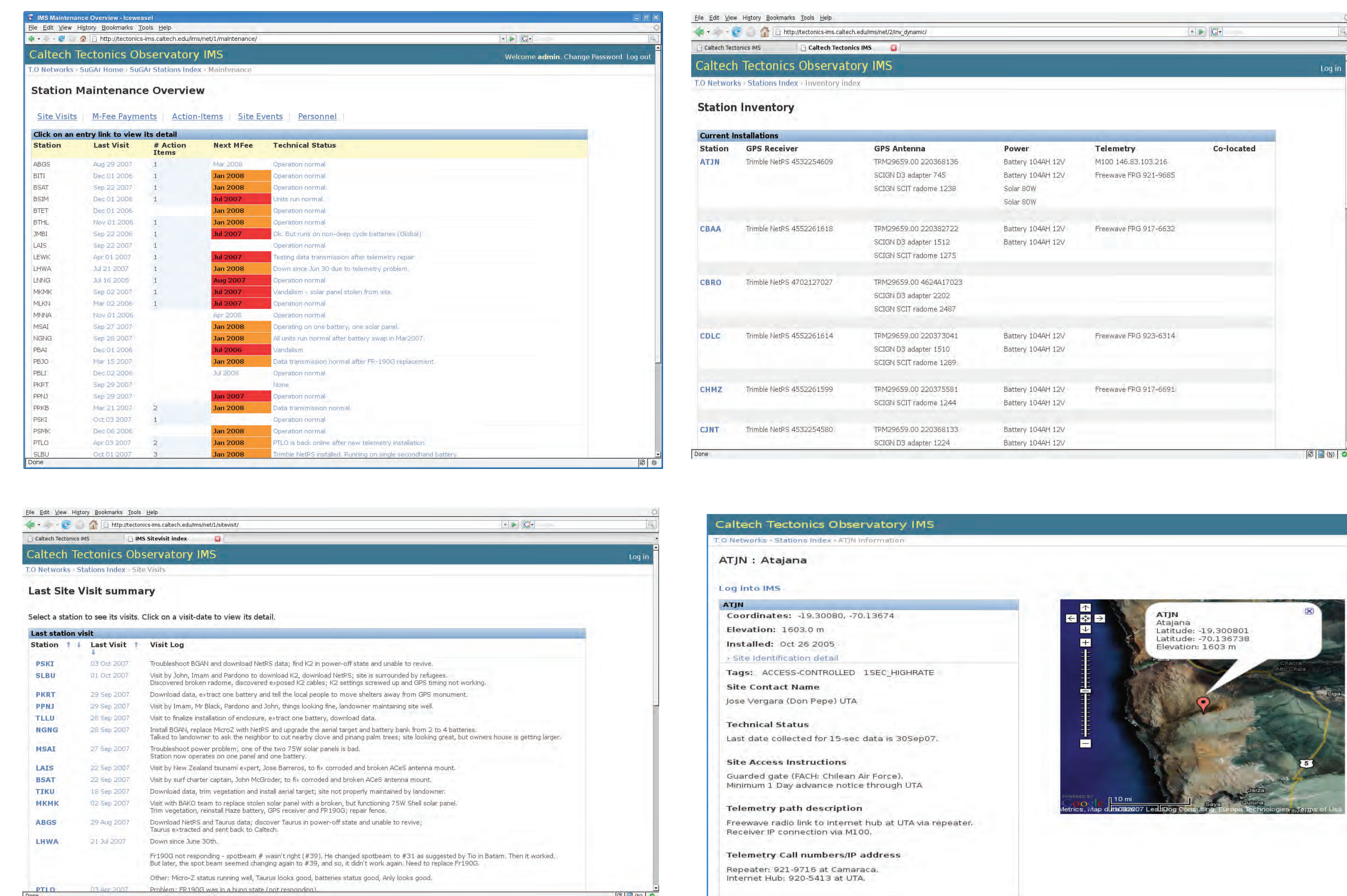


Figure 2. The IMS website allows authorized users to record site visits as well as keep track of station inventory for each network. Top-left: The Maintenance Overview page gives a summary of the status for each station. Top-right: The Inventory page reports the current details at each station. Bottom-left: The Site Visit Summary page shows site visit logs. Bottom-right: The Individual Station page displays properties of that station.

MASE Project Data availability website by F.Chowdhury and R.Clayton

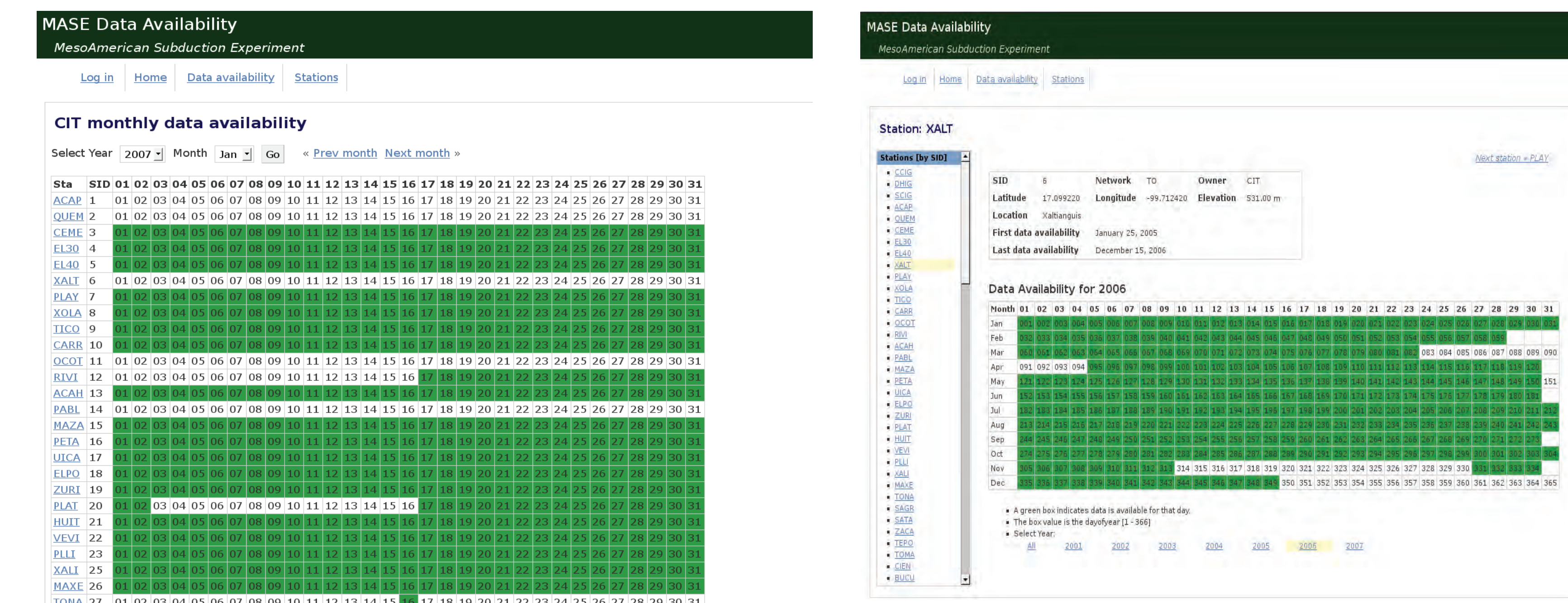


Figure 4. Data availability for the MASE project. Left: Monthly view of the entire array. Right: Yearly view per station.

The database-driven website allows the user to view the waveform data availability by month or by station. Additionally, the user can keep track of the datalogger and sensor installation history at each station.