Supplementary Material

We present here few examples of possible WebObs object attributions: 'Domains' and 'Grids' as scientific methods (table S1) or volcano networks (table S2). We present also some additional screenshots examples: home page (Figure S1), the Gazette (Figure S2), a proc main page, (Figure S3), a node (Figure S4), a proc outputs overview (Figure S5), a proc in development (Figure S6), a sefran output during an eruption (Figure S7), and scheduler manager and runs (Figure S8).

Domain	*Grid*	*Superproc*
Seismology	Felt Earthquake reports	`tremblemaps`
	World Seismicity USGS	`hypomap`
	Lesser Antilles Seismicity	`hypomap`
	Regional Stripchart	`sefran3`
	Global Seismic Network	-
	Soufrière Stripchart	`sefran3`
	Soufrière Bulletin	`mc3`
	Soufrière Hypocenters	`hypomap`
	Pelée Hypocenters	`hypomap`
Deformations	Soufrière EDM	`genplot`
	Soufrière Extensometry	`extenso`
	Soufrière GNSS GipsyX	`gnss`
	Soufrière GNSS Gamit/Globk	`gnss`
	Pelée Gamit/Globk	`gnss`
	Lesser Antilles GNSS	`gnss`
	Soufrière Tiltmetry	`tilt`
Geochemistry	Soufrière Gas Fumaroles Analysis	`volcgas`
	Soufrière Multigas	`genplot`
	Soufrière Hot Springs Analysis	`waters`
	Soufrière Hot Springs Station	`genplot`
	Rain Water Analysis	`waters`
	Pelée Rivers	`waters`
Geophysics	Soufrière Magnetism	`genplot`
	Soufrière Temperature and Flux	`genplot`
	Soufrière Tide Gauge	`genplot`
Meteorology	Soufrière Weather Station	`meteo`
	Guadeloupe Rain Gauge	`genplot`
Phenomenology	Pelée Lahars Prêcheur	`genplot`
	Volcanic Eruptions	-
	Journals	-
	Earthquakes & Tsunamis	-
Transmissions	WiFi Repeaters	-
	UHF/VHF Repeaters	-
	Satellite	-
Observatory	Buildings	-
	Electricity	-
	Health & Safety	-
	Vehicles	-

Table S1. Example of domains, grids and associated superproc at the Guadeloupe and Martinique observatories (extract).

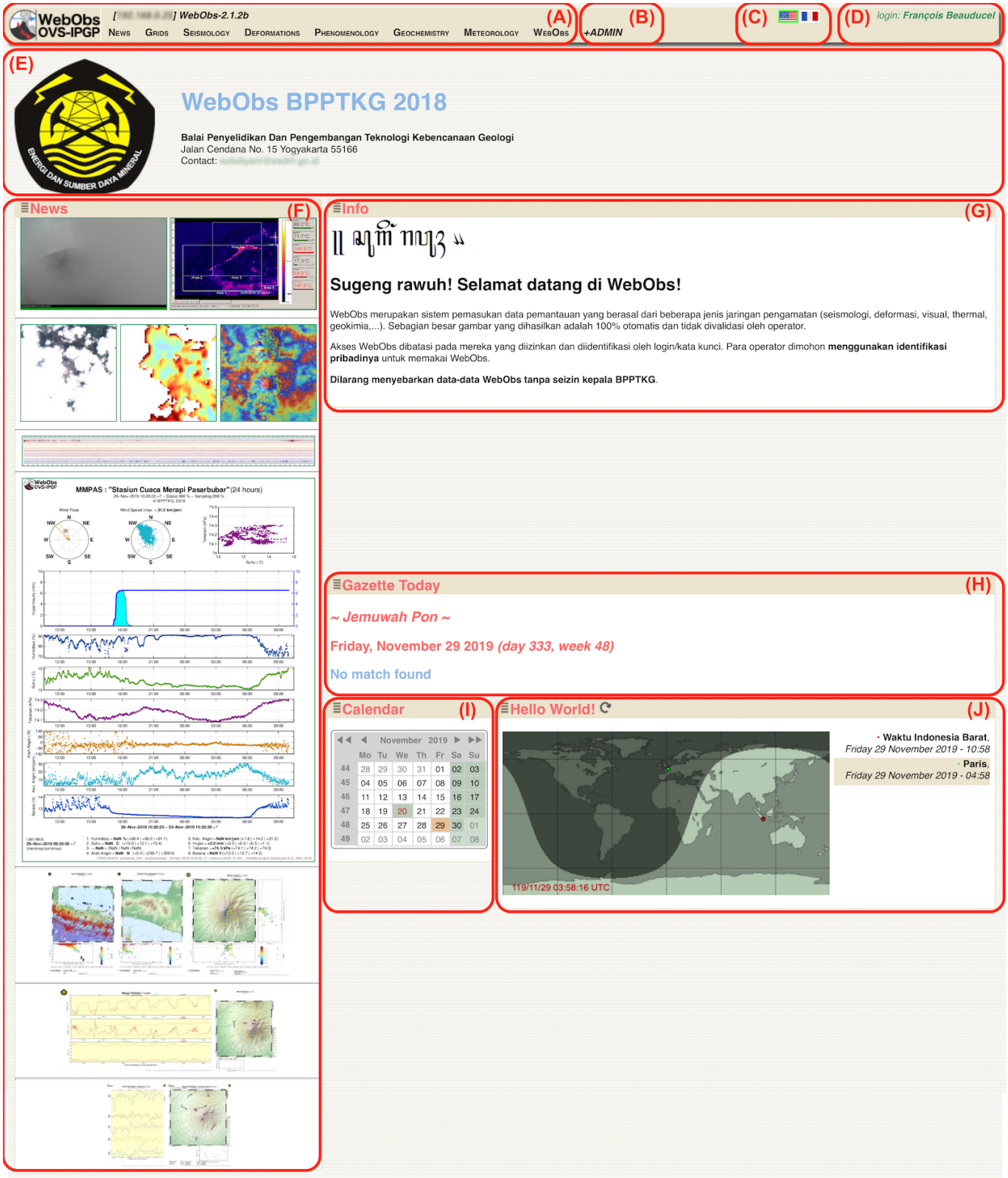

Figure S1. Example of WebObs homepage content: (A) Main menu; (B) Group menu; (C) Internationalization; (D) Authenticated user; (E) Title area with logo and contact; (F) News area with links to internal procs or external graphic pages, (G) Info area with welcome section and data policy; (H) Gazette area; (I) Calendar (linked to the Gazette); (J) Timezone map. (E), (F) and (G) are free MarkDown content (data from BPPTKG/CVGHM).

Domain	*Grid*	*Superproc*
Indonesia	Indonesian Seismicity USGS	`hypomap`
	Indonesia GPS Networks	-
Mt. Agung	GPS Agung	`gnss`
	Tiltmeter Agung	`tilt`
Mt. Gamalama	GPS Gamalama	`gnss`
	Seismicity Gamalama	`hypomap`
	Helicorders Gamalama	`helicorder`
Mt. Kelud	GPS Kelud	`gnss`
Mt. Merapi	Seismic Bulletin Merapi	`sefran3`
	Hypocenters Merapi	`hypomap`
	Helicorders Merapi	`helicorder`
	GPS Merapi	`gnss`
	Tilt Merapi	`tilt`
	Multigas Merapi	`genplot`
	Weather Station Merapi	`meteo`
...		
Mt. Sinabung	GPS Sinabung	`gnss`
	Journal Sinabung	-

Table S2. Example of domains, grids and associated superproc at the Indonesian volcanological observatories (extract).

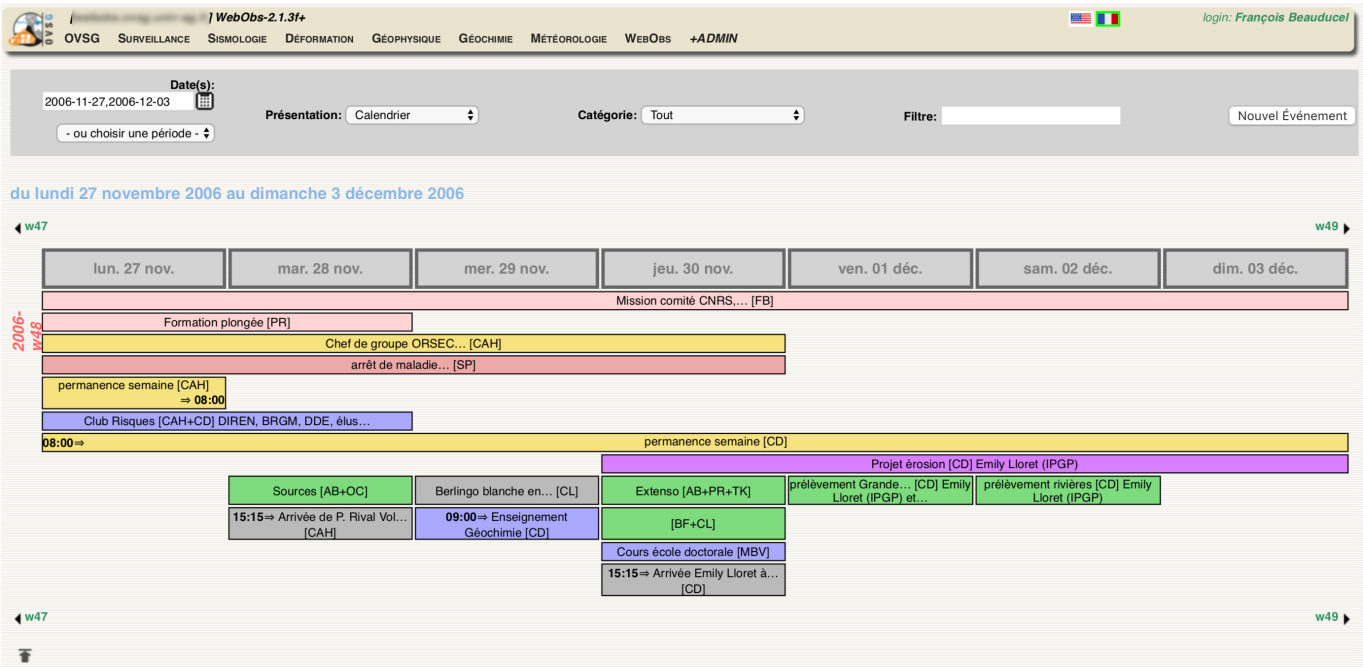

Figure S2. Example of WebObs Gazette calendar display over a week (here week 48 of 2006). Colors correspond to categories of events: staff mission (pink), duty (yellow), leaves of absence (orange), teaching (blue), visitors (violet), field work (green), miscellaneous (gray) (data from OVSG/IPGP).

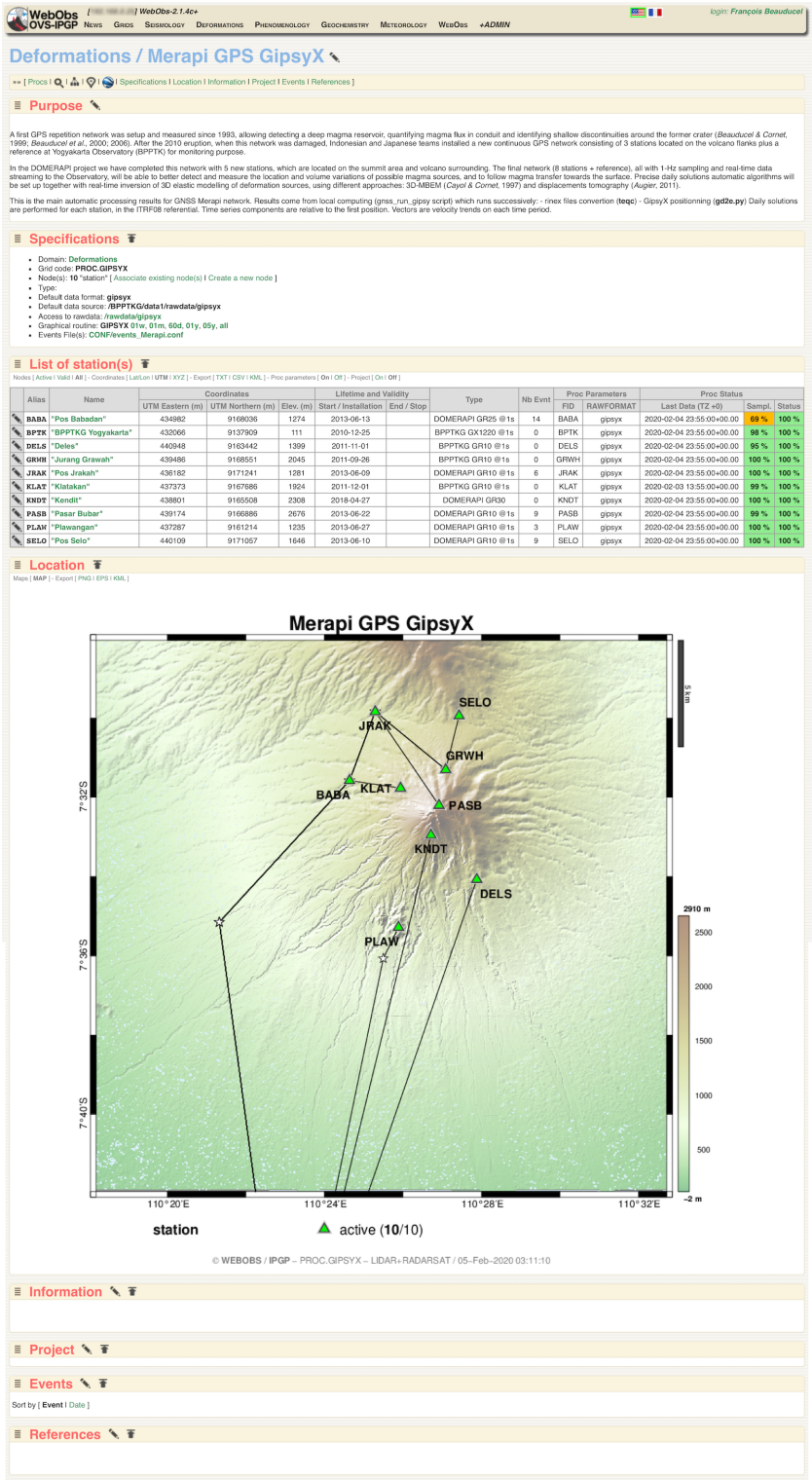

Figure S3. Example of a WebObs proc main page for a group of instrumental stations (here a GPS permanent network): links to creation/association of nodes (administrator level), access to raw data files, graphical routine outputs, a table shows the list of stations, coordinates (here UTM, lat/lon and XYZ available, exportable as TXT, CSV or KML files), data format and status (result from the proc last run), an updated interactive location map showing the transmission links, possible project and dated events, and additional editable text contents allowing general proc description as purpose, information and references (data from IRD/IPGP/VELI/BPPTKG).

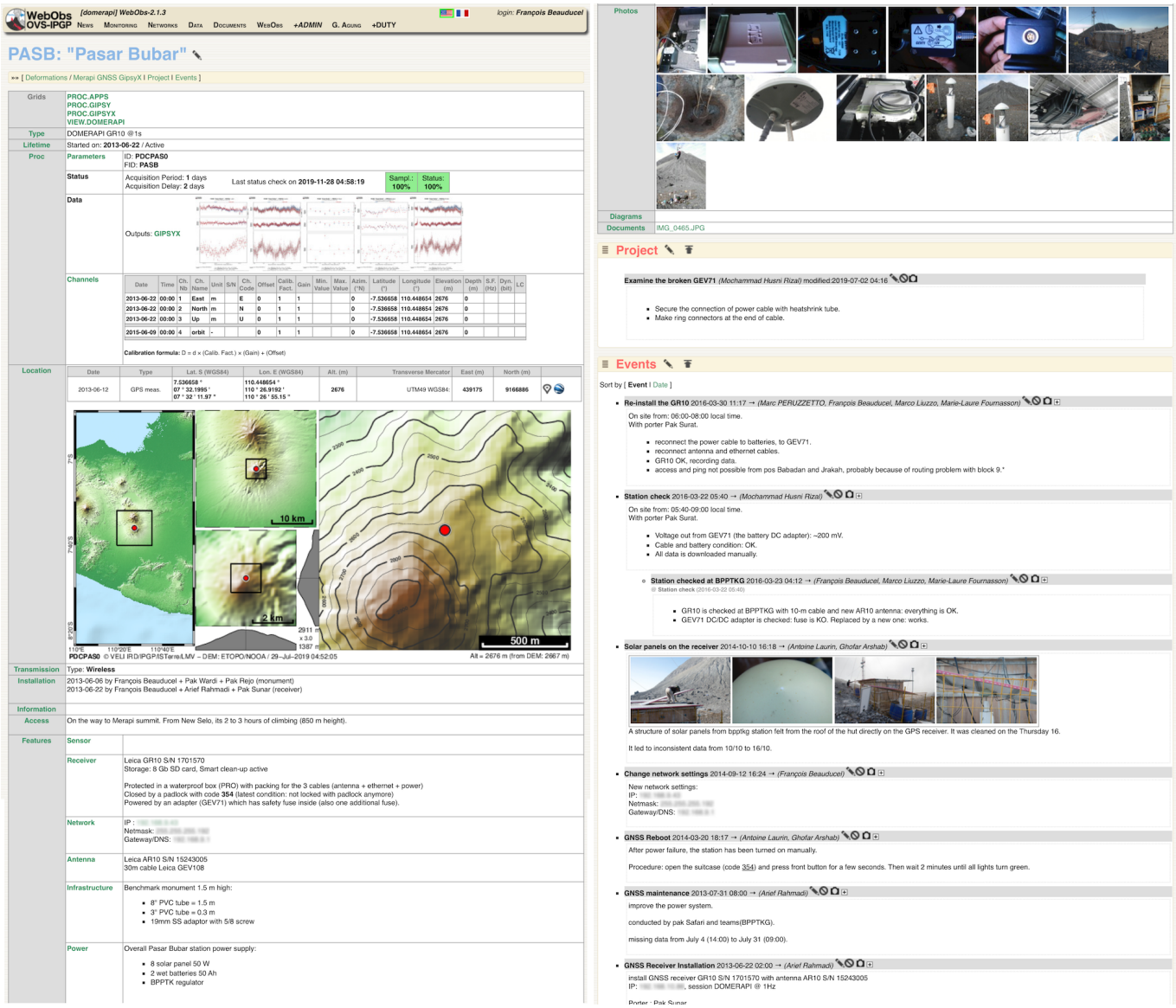

Figure S4. Example of WebObs node for an instrumental station (extract of a GPS permanent station): alias; long name; link for configuration edit; associated grids; type; lifetime dates; proc parameters: IDs, status, links to data and graphs, channels calibration file; location (lat/lon, UTM), links to Google Maps and KML; location map; transmission; information; access; features list and description (sensor, receiver, network, antenna, infrastructure, power); photos; diagrams; documents; project; dated events and sub-events with photos. Text in green are links to editable content, all MarkDown syntax (data from IRD/IPGP/VELI/BPPTKG).

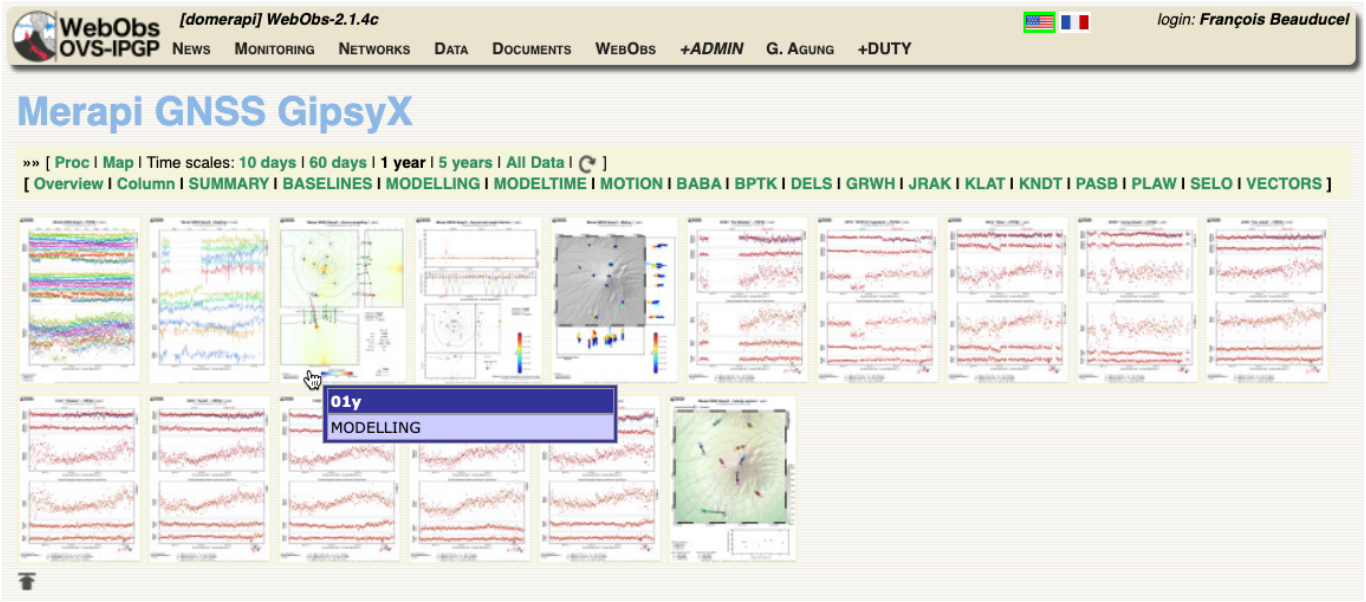

Figure S5. Example of WebObs proc results overview page: links to preset time windows (here 10 days, 60 days, 1 year, 5 years and all data), and available graphs through thumbnail links like summary, baselines, modelling, modeltime, motion, vectors and each station per-node graphs (data from IRD/IPGP/VELI/BPPTKG).

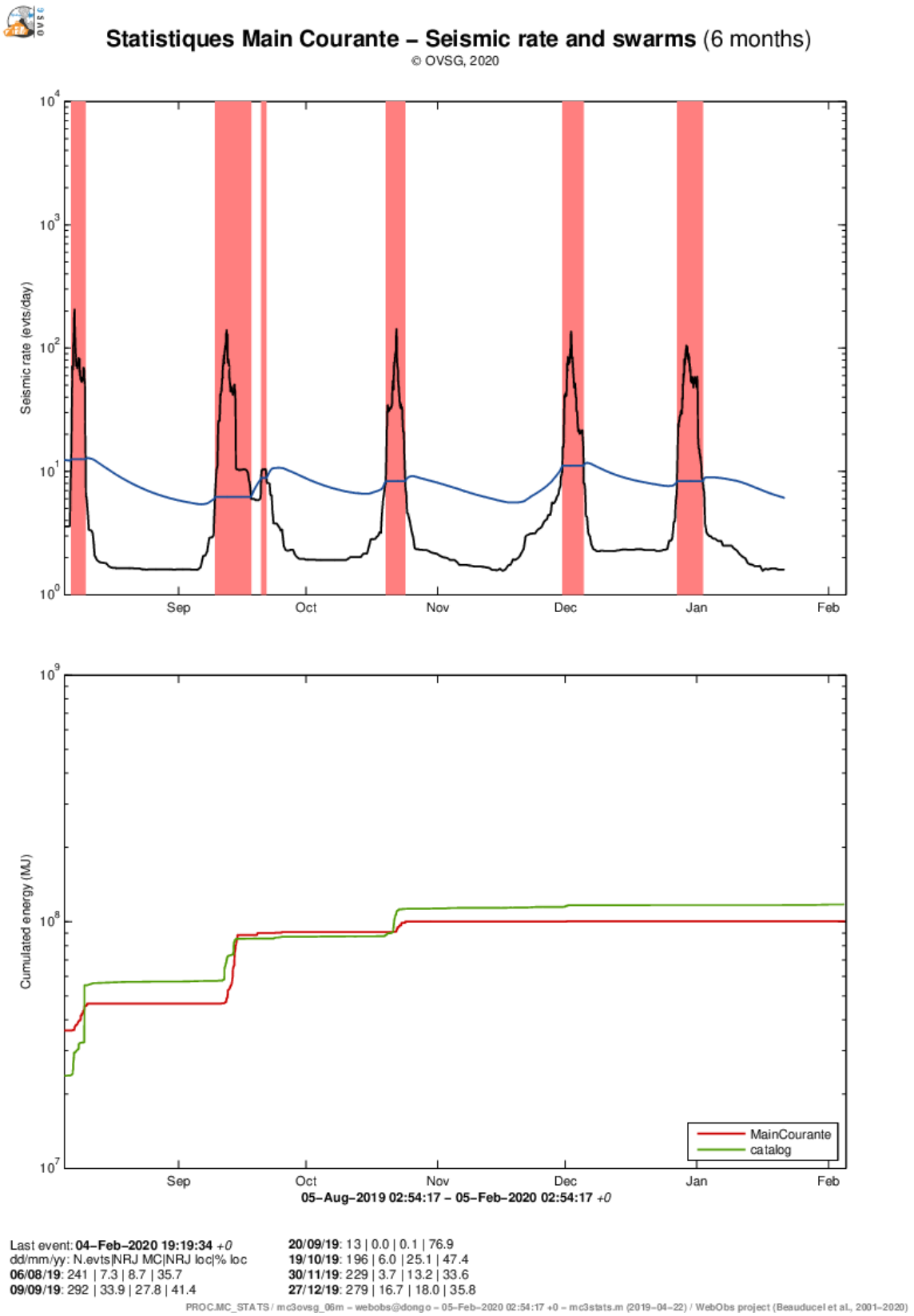

Figure S6. Example of a new superproc under development: (top) instantaneous seismic rate (black line) based on events identified in the seismic bulletin 'Main Courante', the long-term variation of this seismic rate (blue line) which serves as a threshold for seismic swarm detections (red patch), (bottom) cumulative seismic energy from located events magnitude (green line) and a magnitude estimation of all events based on the seismic bulletin duration information (red line). (data from OVSG/IPGP).

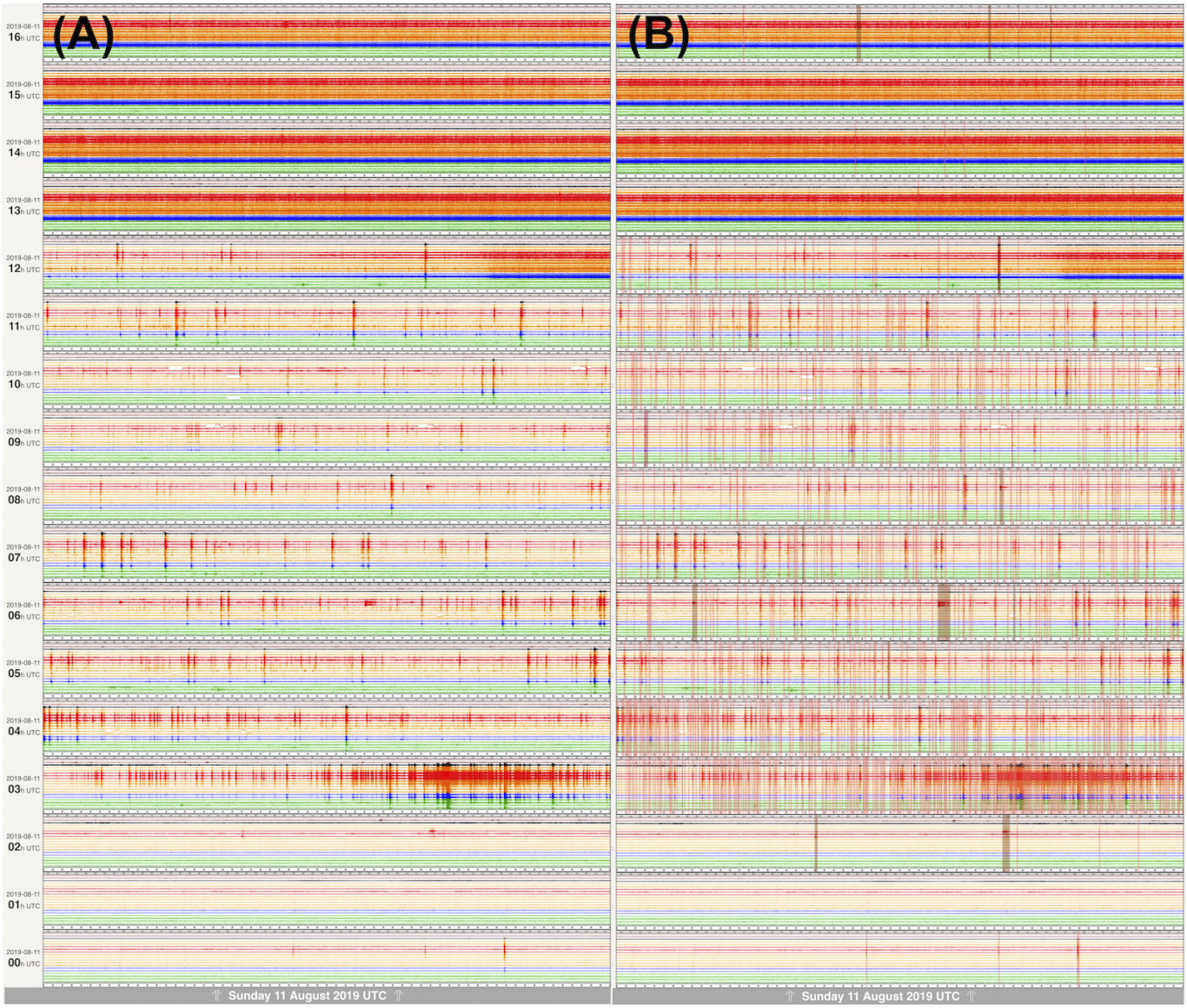

Figure S7. Example of a co-eruptive seismic multichannel stripchart (sefran) at Piton de la Fournaise: 20 stations, vertical component only, colors stand for location (orange on the volcano, red at the summit, other colors outside volcano area), time direction is bottom-up, hourly thumbnails. Seismic crisis began at 03:00 UT, eruptive tremor at 12:50 UT. (A) Seismic waveforms only, (B) Seismic waveforms overlapped by all detected event tags (data from OVPF/IPGP).

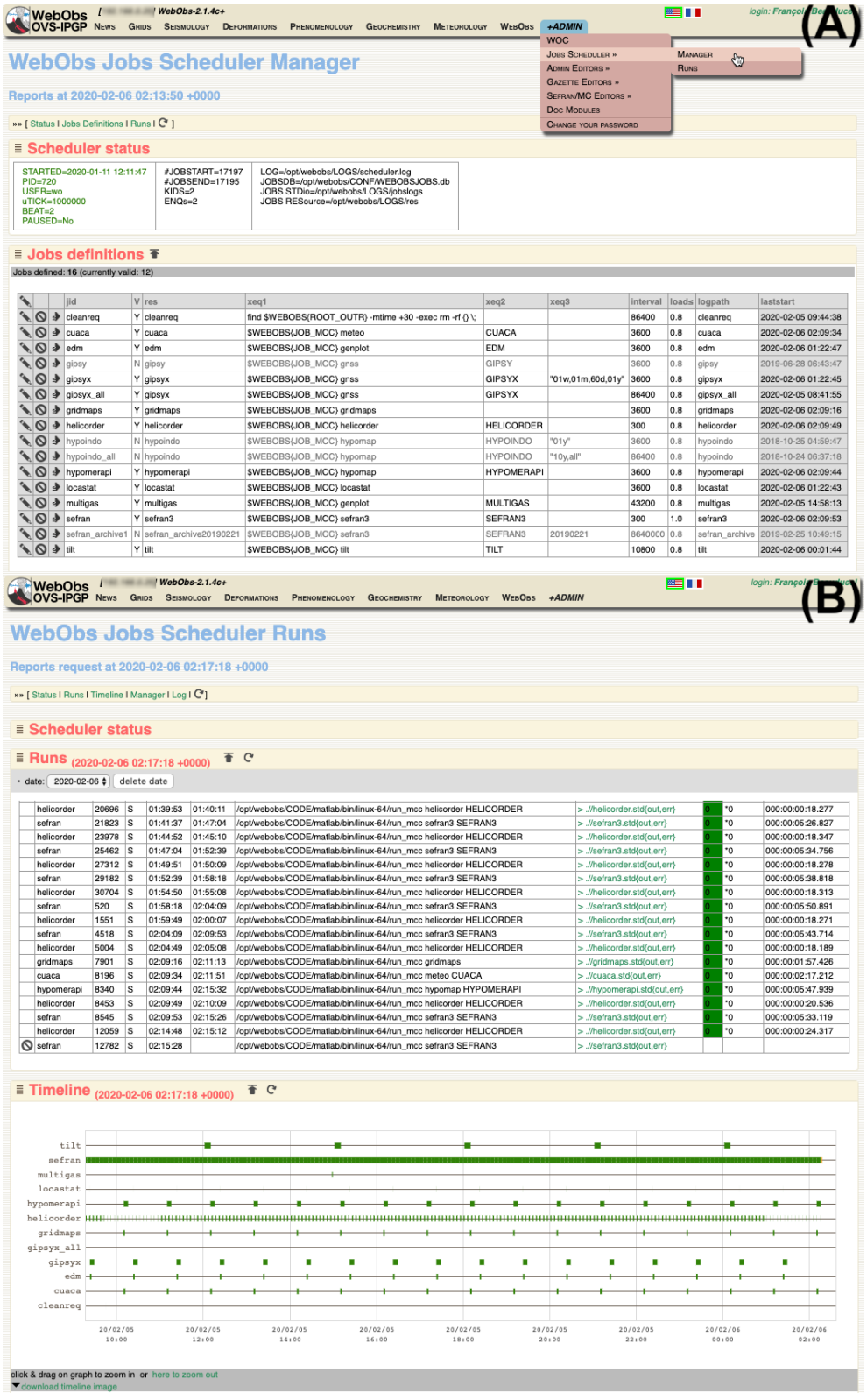

Figure S8. Example of scheduler task planification, accessible from the ADMIN group menu: (A) Scheduler manager showing list of jobs, active or not. (B) Scheduler runs showing last runs status and timeline of execution. Links give access to more detail logs (data from IRD/IPGP/VELI/BPPTKG).