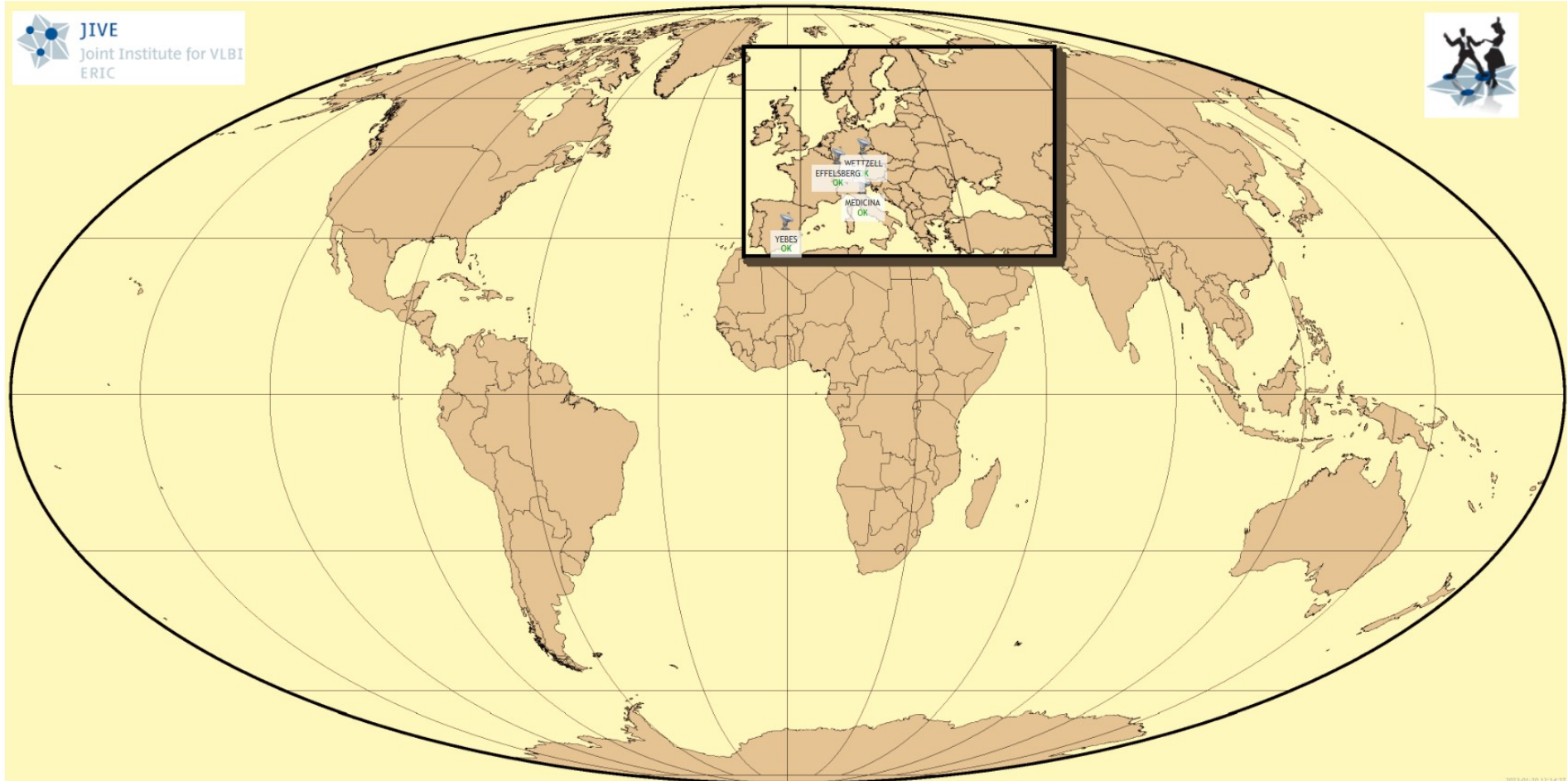


# The real-time EVN Monitor

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# EVN Monitor

- Real-time monitoring of station parameters
  - Weather, clock offsets, TSYS, etc.
- Identify issues during NME / eVLBI, as well as regular user experiments
- Originally developed by Alexander Neidhardt (Wz)
- Similar monitor exists for the IVS
- Based on Zabbix monitoring software
- Currently contributing: Effelsberg, Medicina, Wettzell, and Yebes
- <https://evn-monitor.jive.eu>
  - Username: EVN Guest, Password: EVN Guest

# Items

Name	Key		Name	Key
Antenna name	<i>ERC.ANTENNA</i>		Azimuth	<i>ERC.AZIMUTH</i>
Cable	<i>ERC.CABLE</i>		Catalog year	<i>ERC.CATALOGYEAR</i>
Checks	<i>ERC.CHECKS</i>		Declination (text)	<i>ERC.DEC</i>
<b>Dotmon Clock Offset</b>	<b><i>ERC.DOTMON</i></b>		<b>Dotmon2 Clock Offset</b>	<b><i>ERC.DOTMON2</i></b>
Elevation	<i>ERC.ELEVATION</i>		Halt	<i>ERC.HALT</i>
<b>Meteo Humidity</b>	<b><i>ERC.HUMIDITY</i></b>		IF1 system temperature	<i>ERC.IF1</i>
IF2 system temperature	<i>ERC.IF2</i>		IF3 system temperature	<i>ERC.IF3</i>
IF4 system temperature	<i>ERC.IF4</i>		Log file	<i>ERC.LOG</i>
Next time	<i>ERC.NEXTTIME</i>		Right ascension (text)	<i>ERC.RA</i>
Rate	<i>ERC.RATE</i>		Schedule	<i>ERC.SCHEDULE</i>
Source	<i>ERC.SOURCE</i>		<b>Meteo Temperature</b>	<b><i>ERC.TEMPERATURE</i></b>
Time	<i>ERC.TIME</i>		Tracking state	<i>ERC.TRACKINGSTATE</i>
<b>Meteo Wind direction</b>	<b><i>ERC.WINDDIRECTION</i></b>		<b>Meteo Wind speed</b>	<b><i>ERC.WINDSPEED</i></b>

# Upload data

- Requires no additional software
- Data is send with local script over ssh
- Recommended update frequency: 1 minute
- Simplified upload procedure

– Old:

```
echo SITENAME_000_NASAFIELDSystem ERC.DOTMON `date +%s` \|-1.6666\| | ssh  
USERNAME@evn-monitor.jive.eu zabbix_sender -vv -z 127.0.0.1 -p 10052 -T -i
```

– New:

- `ssh USERNAME@evn-monitor.jive.eu datasend ERC.DOTMON 1.6666`

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# Datasead

- **List of supported keywords: datasead -l**

*Valid keywords = ['ERC.ANTENNA', 'ERC.AZIMUTH', 'ERC.CABLE', 'ERC.CATALOGYEAR', 'ERC.CHECKS', 'ERC.DEC', 'ERC.DOTMON', 'ERC.DOTMON2', 'ERC.ELEVATION', 'ERC.HALT', 'ERC.HUMIDITY', 'ERC.IF1', 'ERC.IF2', 'ERC.IF3', 'ERC.IF4', 'ERC.LOG', 'ERC.MODE', 'ERC.NEXTTIME', 'ERC.PRESSURE', 'ERC.RA', 'ERC.RATE', 'ERC.SCHEDULE', 'ERC.SOURCE', 'ERC.TEMPERATURE', 'ERC.TIME', 'ERC.TRACKINGSTATE', 'ERC.WINDDIRECTION', 'ERC.WINDSPEED']*

- **General help: datasead -h**

*usage: datasead [-h] [-t TIME] [-l] KEYWORD value*

*Upload items into the EVN-Monitor*

*positional arguments:*

<i>KEYWORD</i>	<i>Name of item, e.g. ERC.WINDSPEED; Use --list for a full list of keywords</i>
<i>value</i>	<i>The value of the item to be logged</i>

*optional arguments:*

<i>-h, --help</i>	<i>show this help message and exit</i>
<i>-t TIME, --time TIME</i>	<i>Time of data point as number of seconds since 1970 aka unix time. Default: the current time when this script is called.</i>
<i>-l, --list</i>	<i>Show list of accepted keywords</i>

- **More details in manual**

# DEMO

The screenshot displays the Zabbix web interface. At the top, the browser address bar shows the URL `evn-monitor.jive.eu/zabbix.php?action=map.view&ddreset=1`. The Zabbix navigation menu includes **ZABBIX**, Monitoring, Inventory, Reports, and Configuration. Below this, a secondary menu lists Dashboard, Problems, Overview, Web, Latest data, Graphs, Screens, **Maps**, Discovery, and Services. The main content area is titled "Maps" and includes a "Minimum severity" dropdown set to "Average" and buttons for "Edit map", "Star", and "Share".

The map itself is a world map with a yellow background and a grid. A black rectangular box highlights a region in Europe. Within this box, four locations are marked with blue airplane icons and labels: **WETTZELL** (OK), **EFFELBERG** (OK), **MEDICINA** (OK), and **YEBES** (OK). In the top-left corner of the map area, there is a logo for **JIVE** (Joint Institute for VLBI ERIC).

# Start contributing

- Email following details to [keimpema@jive.eu](mailto:keimpema@jive.eu)
  - SSH public key
  - IP adress (range) from where you are connecting
- You'll receive username and short manual
- <https://evn-monitor.jive.eu>
  - Username: EVN Guest, Password: EVN Guest