

HYDROSAT ARGOS

Autonomous hydrological monitoring solution

HydroSat is a complete hardware & service package that includes a robust and cost-efficient hydrological station (rivers, lakes, etc.), data transmissions via the ARGOS satellite system and tailored data processing services with online visualization tools.

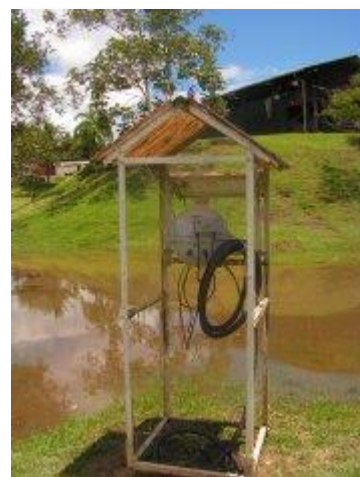
CAPABILITIES

- ✓ Measure water level
- ✓ Measure flow with rating curves
- ✓ Monitor flooding and low flows
- ✓ Identify salt water intrusions
- ✓ Improve knowledge about inland water systems



HARDWARE FEATURES

- ✓ Water level measurements with relative piezometric sensor probe
- ✓ Atmospheric pressure measurements to correct water levels
- ✓ Submerged probe to measure conductivity
- ✓ Energy efficient
- ✓ Robust, waterproof equipment designed for extreme environments
- ✓ Easy to carry and install
- ✓ Global & robust satellite transmissions provided by the Argos system
- ✓ Immediate activation



Basic Service

The basic Argos service for HydroSat includes:

- ✓ Data transmission
- ✓ Data decoding at CLS processing Centre (monitored 365/24/7, with 2 redundant centers)
- ✓ Secure access to ArgosWeb portal to view & export data (csv, tab, etc.)
- ✓ Webservices access if needed to interface existing software with our database (development required by the end-user)


Extra HydroSat Services

> ARGOS Smart Data Filtering:

Bit errors in satellite transmissions occur in difficult terrain (important vegetation, humidity, or mountains...). **ARGOS Smart Data Filtering** optimizes the number of messages with valid measurements received by filtering out outliers from Argos observations. It keeps correct measurements in messages that can contain bit errors, thus optimizing your data.

> ARGOS Dedicated Web Data Plotting:

Plot real-time HydroSat data via the ArgosWeb portal (see illustration below). Customize the way you view your data, based on your specific requirements (type of data, scales, refresh rates, etc.). Get in touch with us to learn more about it.



Started in 1978, Argos is an operational data collection and positioning system supervised by CNES, NASA, NOAA, ISRO and EUMETSAT. Operated by CLS, ARGOS is a not-for-profit satellite system, entirely dedicated to environmental monitoring.

An ideal system for hydrological monitoring:

- ✓ Global coverage
- ✓ Automatic data processing in two 24/7 operational, redundant processing centers
- ✓ Ideal for harsh conditions (ocean, dense vegetation, etc.)
- ✓ Energy efficient: ideal for autonomous stations
- ✓ DOPPLER positioning of stations (GPS-free)
- ✓ Online data access through website (or by email/ FTP)
- ✓ All data collected belong to the station owner
- ✓ An independent satellite system, by scientists, for scientists

www.argos-system.org



Example of the dedicated ARGOSWeb Data Plotting service.

Stations are positioned on the map above, and on click of each station, data are displayed on the graphs below it.