



## OTT Hydromet Application Notes / Success Stories

### ”MRC Hydro-meteorological Network“

#### Hydro-meteorological data collection and transmission system

Network of 49 stations for efficient, reliable and timely measurement of water level (OTT CBS Bubble Sensor, OTT RLS Radar Level Sensor, OTT SE200 Shaft Encoder) with remote data transmission systems by GPRS



#### Background

The **Mekong River Commission Secretariat (MRCS)** is a Basin Management Organization formed through the Joint-Cooperation by the National Governments of Cambodia, Lao PDR, Thailand and Vietnam. Besides, China and Myanmar are dialogue partners for cooperation with the MRCS.



The organization aims at sustainable development on managing water resources, sharing information among the Mekong member countries.

In cooperation with the World Meteorological Organization (WMO), MRC established a near-real time Hydro-meteorological network, funded by the French Development Agency AFD.

The MRC hydro-meteorological network is a basin wide hydro-meteorological monitoring system, spatially covering both mainstream and main tributaries of the Mekong River.

The system is integrated into the existing MRCS monitoring system and will also improve the national hydrological networks and river monitoring / forecasting capacities.

The project is managed under the Information and Knowledge Management Programme (IKMP) in the Technical Support Division (TSD) of the MRC Secretariat.

It shall be ensured that all data collected basin wide are made available in a timely manner to the Regional Flood Management and Mitigation Center (RFMMC) in Phnom Penh and other real time users.

## Task

The main objective of the MRC Hydro-meteorological network is to establish an efficient, reliable and timely hydro-meteorological data collection and transmission system. The 49 network stations need to provide near-real time water level and rainfall in 15 minutes intervals over the mainstream and main tributaries of the Mekong River.

- Water level and rainfall measurement stations
- Remote data transmission via GPRS
- Installation of the stations at 49 different locations in the different member countries
- Training of national technical staff



See website of the Commission for further information:

[www.mrcmekong.org](http://www.mrcmekong.org)

## Solution

- Supply of 49 measurement stations with OTT DuoSens Data Logger as turn-key solutions for water level and rainfall measurement, data storage and remote data transmission.

Different water level sensor technologies applied, according to individual site conditions:

- 30 bubble sensors: OTT CBS
  - 9 radar level sensors: OTT RLS
  - 10 shaft encoders: OTT SE200
- Installation of the stations in the different member countries by local OTT partner
  - Regional and national training for the operation and maintenance of the stations for the national customer staff



## Advantages

- State-of-the-art technology for long-term and sustainable monitoring of hydro-meteorological data
- Turn-key solution – from sensor & data monitoring to complete installation and set-up
- Best suitable sensor technology for each different type of measurement site
- Installation, set-up and configuration of stations as well as training for customer – all handled by local OTT partner
- Competent after-sales service provided to the MRC by local partner with support from OTT Hydroservice team in Germany

## Technology:

### OTT CBS – Bubble-Sensor

- indirect drift-free method
- set-up without software programming (done via DIP-switches)

### OTT RLS – Radar Level Sensor

- lightweight, small housing – easy to install
- compact, flat design – no insect or spider manifestation possible
- extremely low power consumption – ideal for use also in remote locations

### OTT SE200 – Shaft Encoder

- drift-free float principle
- high accuracy and resolution

More information on OTT products and solutions at:  
[www.ott.com](http://www.ott.com)