

Iraqi Ministry of Agriculture & USGS Agri-Meteorological Monitoring Network

In 2010, Sutron Corporation in conjunction with the USGS office in Sterling, Virginia, USA, assisted the Iraqi Ministry of Agriculture (IMoA) in setting up a country-wide Agri-Meteorological Monitoring Network. This network includes 40 remote monitoring stations with communication via EUMETSAT Satellite. In addition to the remote stations, two receive sites were supplied to collect the data in central locations in Baghdad and Erbil.



In-Country Training

To build the Ministry's personnel capacity, Sutron Corporation first traveled to Iraq to perform a two week training, in-class and in-field, on the operation, maintenance, installation and troubleshooting of the remote Agri-Met stations where 17 participants from all over Iraq were in attendance. Part of this training included on-site installation of three sites in Erbil, Sulaymania and Dohuk.

A second training course on the operation, maintenance, troubleshooting and installation of the two receive sites to be installed in Baghdad and Erbil is scheduled for December 2010 and January 2011. Both of these training courses are conducted in Arabic.

Application & Project Details

OWNER	Iraqi Ministry of Water Resources (IMoWR)
PROJECT	Supply, install & train Agri-Met Stations to measure & log wind, air pressure, rain, soil temperature at 2 different depths, soil moisture & evapotranspiration parameters. Data is transmitted via EUMETSAT to 2 separate Iraqi receive sites. Sutron supplied both Earth Receiving Ground Stations & all Central Receiving software.
DATES	2010 - 2011
CONTACT(S)	USGS Contact: Saud Amer, Ph.D. Water Resources and Remote Sensing Specialist International Water Resources Branch Email: samer@usgs.gov IMoA: Eng. Shawket S. Jameel Head of Section for Water Management Director of Agro-Meteorology Program Email: shawket964@yahoo.com
STATION DESCRIPTION	40 Automatic, Remote Agri-Meteorological Stations. Network anticipated to expand 2011.
TELEMETRY & RECEIVE SITES	2 EUMETSAT, DRGS Ground Stations, Sutron's ILEX Receive Site Software
OTHER	Multiple in-country training sessions (Iraq).



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Key System Features

Automatic Agri-Met Stations

- ▶ Sutron's Certified EUMETSAT Satellite Transmitter with XLite 9210 Data Logger
- ▶ Ultrasonic Wind Speed & Direction Sensor
- ▶ Combined Air Temperature & Relative Humidity Sensor with Radiation Shield
- ▶ Sutron's Barometric Pressure Sensor
- ▶ Sutron's Stainless Steel Tipping Bucket Rain Gauge
- ▶ Solar Radiation Sensor
- ▶ Soil Temperature Sensors at two depths
- ▶ Soil Moisture Sensor
- ▶ System is fully automatic and solar powered.

Central Receive Sites

Digital Readout Ground Stations

Two Central Receive Sites for data collection and low resolution imager plus all Receive Site and Central Station software.



Agri-Met Station at Sulaymaniyah, Iraq



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