



Multifunctional Weather Monitoring System

Weather Bucket

<http://www.hotweb.or.jp/bucket/>



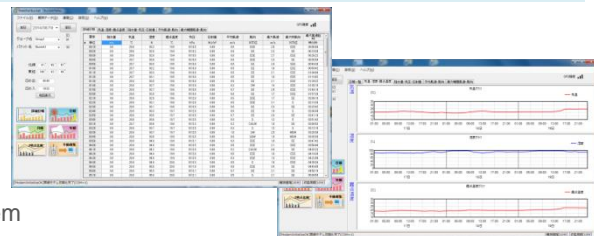
Compact Weather Monitoring System with Excellent Cost Performance



- ★ Measured parameters include air temperature, relative humidity, dew point, precipitation value, air pressure, solar radiation (integral value), wind speed (average, instant maximum), wind direction (average, direction of maximum speed), soil temperature. Other general-purpose sensors are applicable.
- ★ Power source is solar battery
- ★ Forced air blow tube allow the measurement of air temperature and relative humidity
- ★ Ultrasound type sensor for wind speed and direction measurement
- ★ Special energy saving radio unit (*1) realizes the acquisition of measured data by radio channel
 - *1 Radio frequency depends on selling region (429MHz/433MHz)
- ★ Direct data acquisition is also available through serial cable
- ★ Integrated one-unit structure with simple installation
 - *Installation tripod is sold separately
- ★ Several Weather Bucket units may be joined into the network which is controlled by common server PC
- ★ Internal Data Logger of Weather Bucket may store 6-months data

"Bucket Mate" software (weather data analysis software) is included in standard package

- ① Registered data may be presented in table or graph form on daily, monthly or yearly base
- ② 3-point comparative graph indication (for network structure)
- ③ Indication of sunrise time and sunset time based on registered values of longitude and latitude data for installation point
 - *Positioning data may be acquired with GPS module installed in unit
- ④ Indication is possible in different unit systems by switching between them
- ⑤ Multilingual indication for weather analysis software is available
 - *Japanese/English/Russian indication is available



Bucket Mate (Weather data analysis software)
*Multilingual correspondence is available

Weather Bucket
Distributor

Alem International Co., Ltd.

Address: 1-1-601, Kita 16, Higashi 4, Higashi-ku, Sapporo 065-0016, Hokkaido, Japan
Tel, Fax : (+81)11-753-1040 E-mail: sapalmaty@gmail.com
Mobile(Japan): (+81)90-3118-1986 Mobile(Kazakhstan): (+7)777-705-1809

Developer &
Manufacturer

SEC Corporation Ltd.

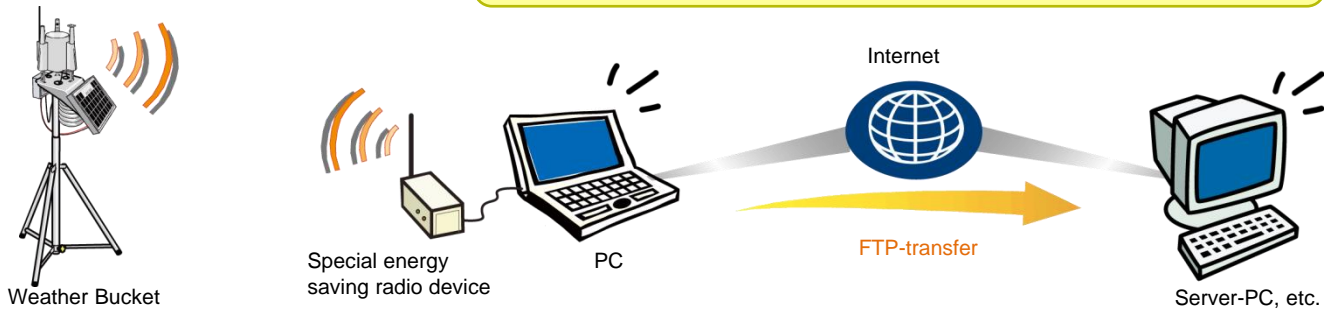
Address: Suehiro-cho 22-1, Hakodate-city, Hokkaido, JAPAN
Tel: +81-138-27-7516 Fax: +81-138-27-7532 E-mail: weather@secnet.co.jp
(Japanese Only)

Image of the system structure

Data acquisition method:

① Special energy saving radio

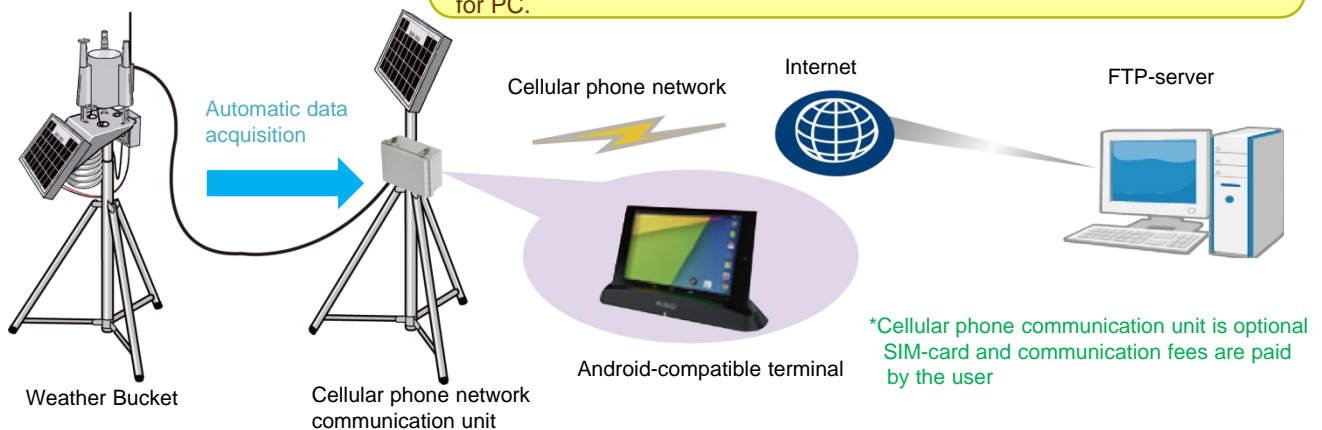
- ★ Usage of solar energy for radio transmission to PS
- ★ Multiple Weather Buckets are controllable from single PC
- ★ Observed data may be automatically and periodically sent to FTP-server



Data acquisition method:

② Cellular phone communication network

- ★ Application of cellular phone communication network made it possible the automatic transmission of observed data to remote locations
- ★ System operates with exclusively solar power supply and therefore may be used stand-alone in remote places far from commercial electricity nets needed for PC.



Examples of weather data usage

Agriculture

(1) Plant Growth Control

Monitoring of temperature, precipitation, etc., with Weather Bucket installed at a field. Planning of irrigation and fertilization schedule.

(2) Disease and pest countermeasures

Minimization of damage caused by diseases and pests by recognition of the environment conditions when they are easy to occur, and taking countermeasures in advance.



Environment

(1) Plantation monitoring

Control of plant growth with weather parameter monitoring by Weather Bucket.

(2) Consideration of the land usage

Determination of the lands suitable for agriculture and plantation with usage of weather information.

(3) Monitoring of urban area environment

Monitoring of "hit islands" and other phenomena caused by urbanization process.



Disaster prevention & monitoring

(1) Monitoring of flood

Monitoring of precipitation in mountain area with Weather Bucket. Notification of the river basin residents in case of emergency.

(2) Monitoring of spontaneous combustion

Monitoring of precipitation, and warning of drastically dry-condition area on possible forest and step fire.



Others

(1) Transport

Installation of Weather Buckets along the railways and highways to inform passengers on weather.

(2) Retail business

Consideration of sales for shops and retail events in connection with weather conditions.

(3) Education

Usage of Weather Bucket as a teaching materials at school. Display the weather data at school WEB-sites, etc.

