



# UNMANNED METEOROLOGICAL STATION

Aviation Meteorological Systems, JSC

[www.jsc-ams.com](http://www.jsc-ams.com)



UNMANNED METEOROLOGICAL STATION



SCREEN

UNMANNED AUTOMATED METEOROLOGICAL STATION (UAMS)

Purpose

The station was developed to measure the main atmospheric parameters in a standalone mode, as well as to process, transfer and display information in order to provide hydro meteorological support to Customers.

Unmanned automated meteorological station includes:

- Sensors for measuring of surface layer meteorological parameters such as atmospheric pressure, air humidity, temperature, precipitation, wind direction and speed;
- Device for generation of data resulted from measurement of the surface layer meteorological parameters and realization of control commands;
- Central unit for receiving, processing and transmitting of meteorological data;
- Transceiver which transmits results of measurements and receives commands from the central unit.

Possibility of data transmission by the remote user using a cable (modem, Ethernet) or wireless links (Iridium, GPRS).



UAMS

Operation of the unmanned automated meteorological station above the Arctic Circle

UAMS Measurement System’s Operational Conditions:

- Temperature range is -50...+50°C (for the air temperature sensor -60...+50°C);
- Relative humidity is up to 100% at a the temperature of +35°C.

UAMS Measurement System is resistant to adverse effects such as:

- Rime ice and dew;
- Dust and sand;
- Precipitations;
- Fog;
- Icing.

Contents of measured and displayed meteorological parameters

| Measured parameters       | Range of measurement | Measurement accuracy |
|---------------------------|----------------------|----------------------|
| Atmospheric pressure, hPa | 600-1100             | ±0,5                 |
| Air temperature, °C       | -60 +50              | ±0,5                 |
| Relative air humidity, %  | 10-100               | ±3%                  |
| Precipitations, mm        | 0-300                | 0.2                  |
| Wind speed, m/sec         | 0,5-60               | ±(0,5 +0,03V)        |
| Wind direction, degrees   | 0-360                | ±5                   |

Ceilometer and visibility sensors can be also connected to the station.



Visibility range

- Laser, wavelength - 0.88;
- 1M laser safety class;
- Range rate - 10-75000 m;
- Accuracy <= 2%.



Ceilometer

- Laser wavelength 1.55;
- 1 laser safety class ;
- Range rate - 10-7500 m;
- Accuracy - 5 m;
- Up to three cloud layers.



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