

Excellent night shot

## Automatic Cloud Observation System



6M pixel image capture (2,432X2,432)

Observation: day and night (24 hrs.)

Removal of dust & precipitation by fan

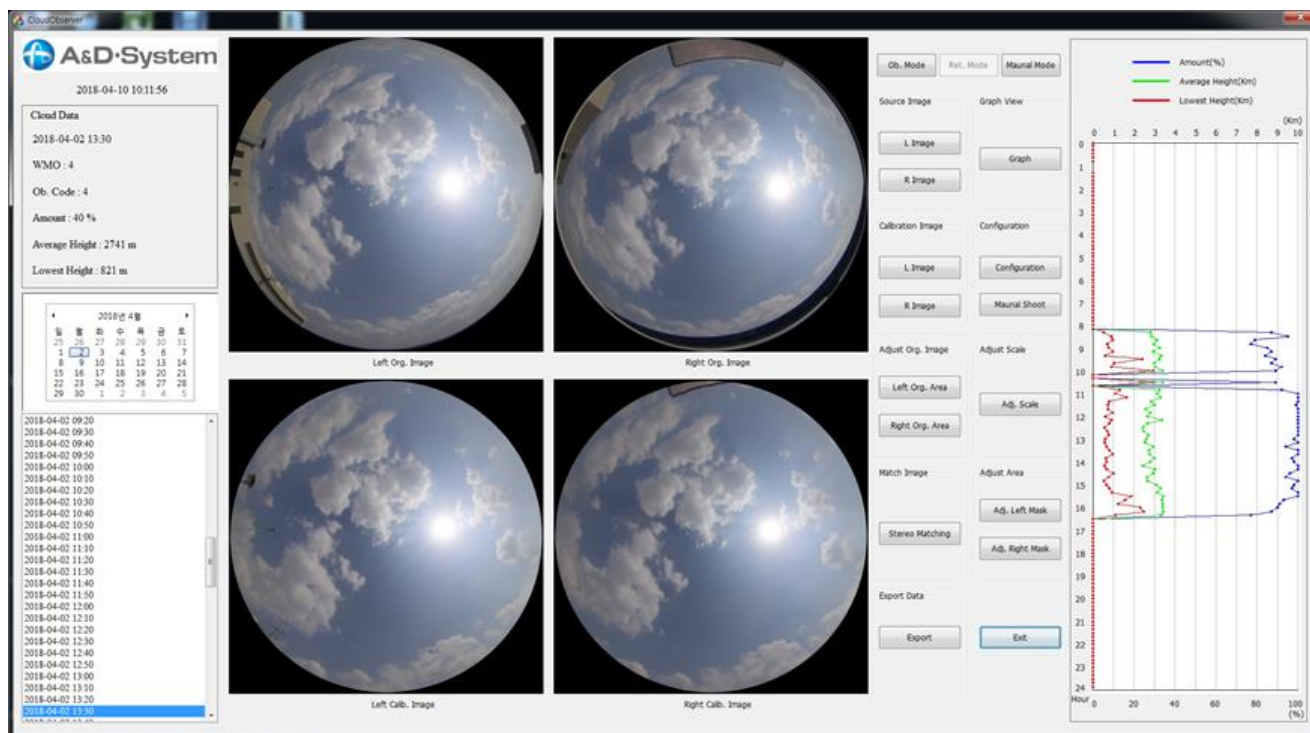
Automatic heating control

Observation of Cloud amount & height

Observation time interval : 10 min.

Remote retrieval system

Excellent night shot



## Acquisition of high precision observation data

Use high resolution camera (2,432X2,432), Maximum(3,648X3,648)

Apply high quality camera for night shooting (World only)

Use limited range of images with low observation errors (Shooting angle 180° / Observation angle 140° )

## High reliability of observation data

Error correction according to viewing angle (Distorted image to smoothing correction)

Cloud heights : lowest height, average height

Cloud amount : Percentage, WMO code(8 classification), 10 classification

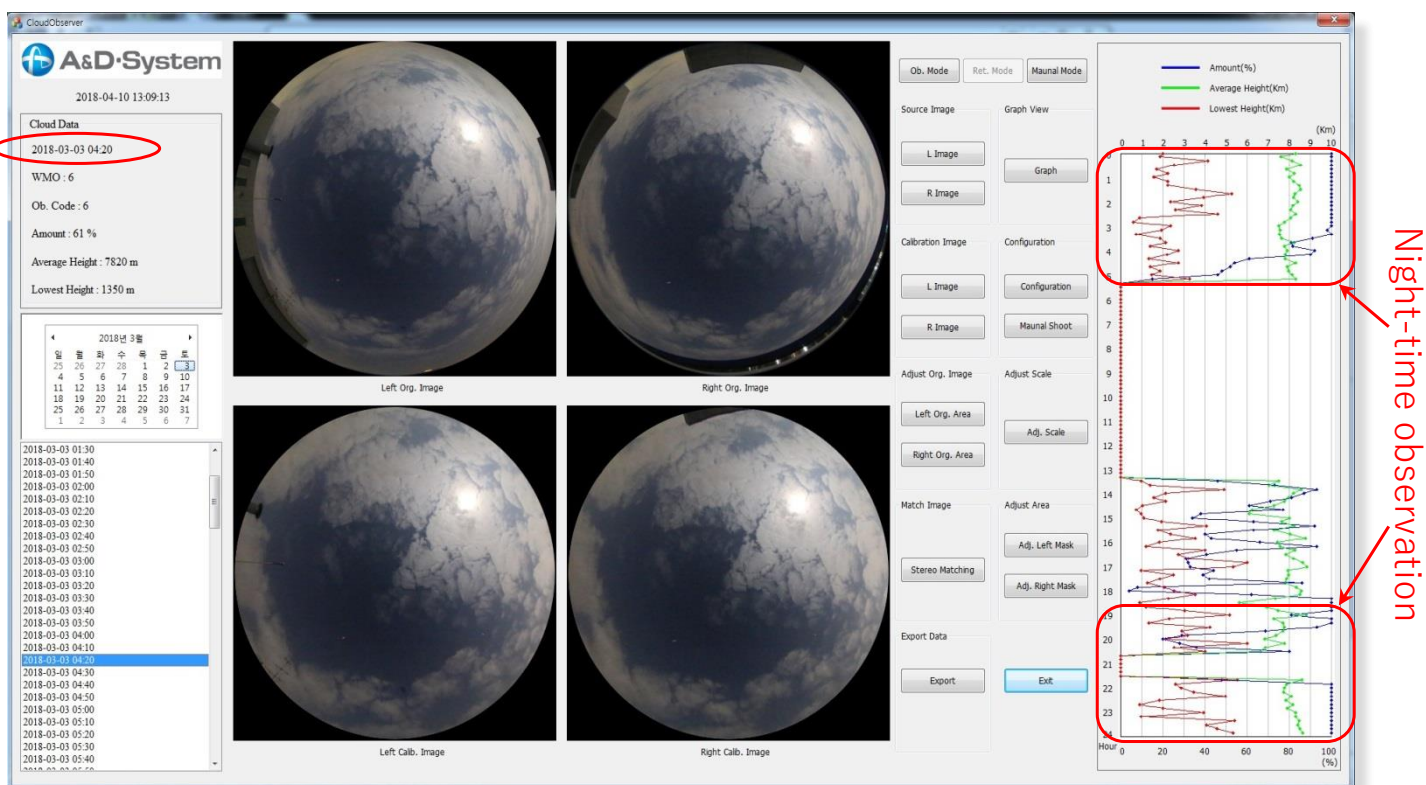


## Correction of distorted images by smoothing

The correction makes the central clouds become smaller, while the clouds near the rim become larger.

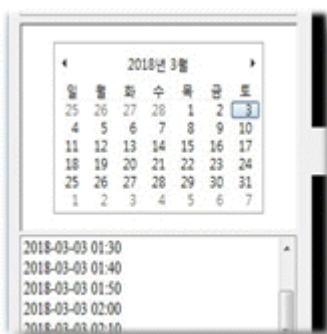
## Adoption of functional algorithms minimizing observation errors:

- Sunlight removal algorithm (Solar / Sun glow)
- Elimination algorithm of ambient light at nighttime
- Fine dust recognition algorithm
- Anti-blurring algorithm for photographed image at sunrise / sunset
- Stable image acquisition regardless of light quantity by applying pre-shot function
- Raindrop removal algorithm
- Dust and precipitation removal system using continuous blower
- Removal of snow on the rim of fisheye lens using automatic temperature sensing hot wire
- Application of smoothing algorithm for distorted image on fisheye lens
- Application of ISO 25,600 for night shooting and precise measurement data
- Instantaneous measurement calculation with 10 minutes interval observation, and hourly average measurement



## Night shot vision at 04:20 AM

The image photographed at 04:20 in the nighttime is shot clearly as in the daytime.



Retrieval mode in calendar format.



A single cloud image acquisition device is used for cloud amount observation.

Two image acquisition devices are needed for observation of cloud heights.



ITEM	SPECIFICATION
Image Sensor	35.8mmX23.9mm CMOS
Sensor Resolution	5,472X3,648 (20mega pixel)
Capture Resolution	2,432X2,432 (6mega pixel)
Lens Type & Field of View	Fisheye 180 degree
ISO	100~25,600
Shutter Speed	5~1/4,000 sec
Image Format	Jpeg
Observation Time	day & night (for 24hours)
Observation Time Interval	10 minutes
Automatic Heating	under 2 degree Centigrade
Dust Remover	120mm 24V Fan (6m <sup>3</sup> /min)
Input Voltage	220V AC
Size	254mm(D)X246mm(H)
Weight	6.5Kg

Product specifications and design are subject to change without prior notice for performance improvement.

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