



## **Current Status of COMS Products Services**

This document reports on current status of COMS products services. Currently, KMA is producing 16 meteorological parameters such as cloud analysis, fog, Asian dust, atmospheric motion vector from COMS raw data for various applications such as nowcasting, numerical weather prediction model, climate monitoring, and so on. Among them 10 COMS meteorological products are distributed to users and the others will be distributed in end of this year.

*\*COMS: Communication, Ocean, and Meteorological Satellite*

## 1. Introduction

Communication, Ocean, and Meteorological Satellite (COMS) was launched on 27 June 2010 successfully. Sixteen COMS meteorological products as shown in Figure 1 had been developed with the satellite development schedule and experimentally implemented to assess during in-orbit test period. The COMS was started operationally on 1 April 2011.

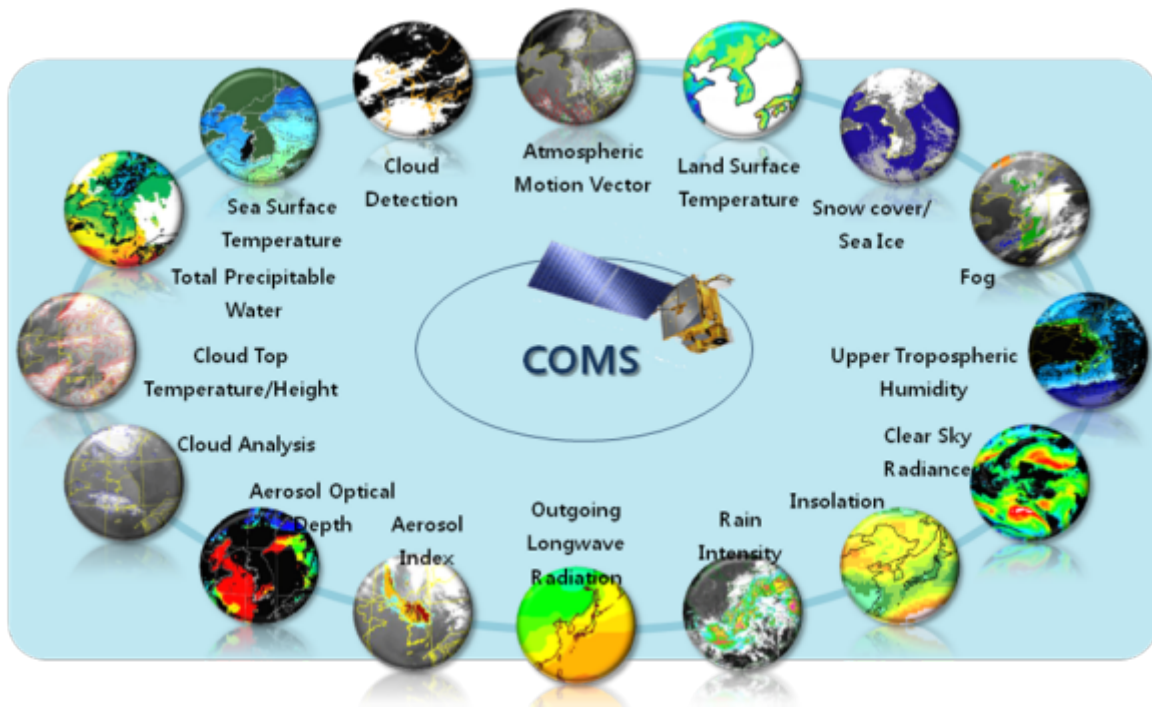
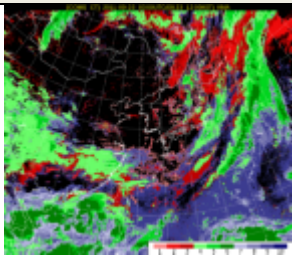
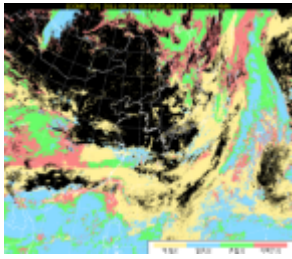
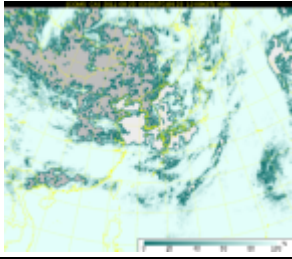
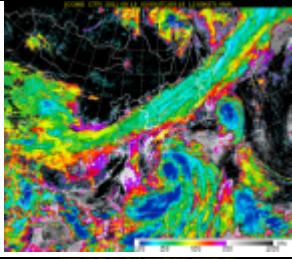
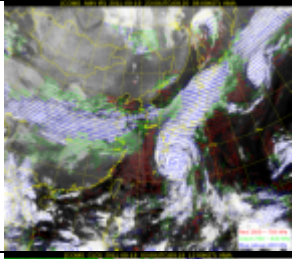
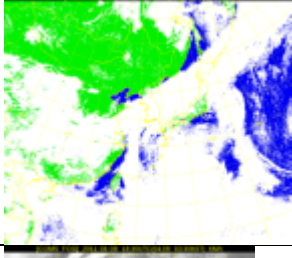
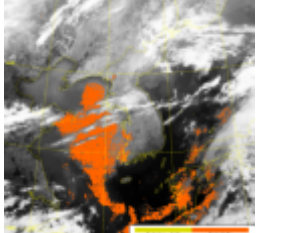


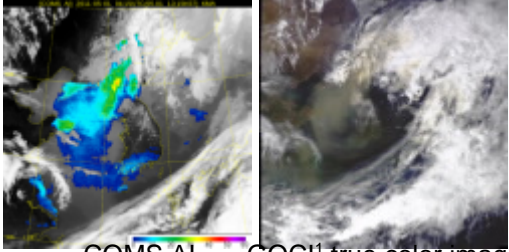
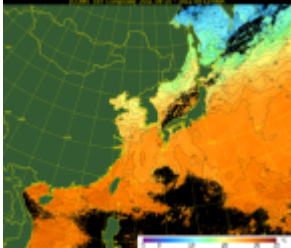
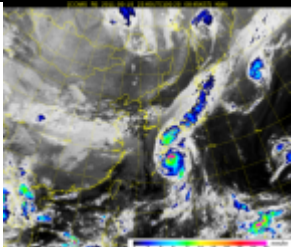
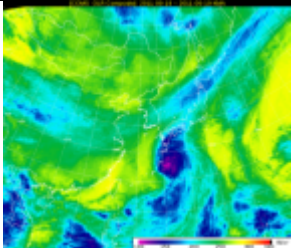
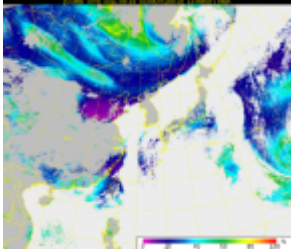
Figure 1. COMS Meteorological Products.

## 2. Current status of COMS Products Services

Parts of meteorological products from COMS was started to generate operationally on 1 April 2011 together with COMS operation. These are cloud analysis (type, phase and amount), cloud top temperature/pressure, atmospheric motion vector, cloud detection, fog, and aerosol index. And then, four products, which are sea surface temperature, rain intensity, outgoing longwave radiation, and upper tropospheric humidity, were generated additionally from 10 August 2011. These products are currently validating through comparison with satellite or ground in-situ data. For example, detection area of Asian dust (aerosol index) occurred in last April and May was compared with COMS/GOCI (Geostationary Ocean Color Imager) and MODIS true color images or OMI AOD. The other six products which are land surface temperature, sea ice/snow cover, total precipitable water, insolation, clear sky radiance, and aerosol optical depth will be produced end of this year. Table 1 shows the status of COMS products services.

Table 1. Status of COMS products service.

Start Date	Product Name	Resolution	Frequency	Thumbnail	Product Name
2011	Cloud type (amount)	4 km	Every 15 min.	  	SEVIRI Cloud type Cloud phase Cloud amount
	Cloud top pressure/temperature/height	4 km	Every 15 min.		Cloud top pressure
	Atmospheric Motion Vector (AMV)	4 km	1 hour		
	Cloud detection	4 km	Every 15 min.		
	Fog	4 km	Every 15 min.		

	Aerosol index (AI)	4 km	Every 15 min.	 <p>COMS AI    GOCI<sup>1</sup> true color image</p>
10 August 2011	Sea surface temperature (SST)	4 km	1-, 5-, 10-day composition	 <p>5-day composite SST</p>
	Rain intensity (RI)	4 km	Every 15 min.	
	Outgoing longwave radiation (OLR)	4 km	1 day	
	Upper tropospheric humidity (UTH)	30 km	Every 15 min.	

<sup>1</sup> GOCI: Geostationary Ocean Color Imager of COMS