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Prepared by CMA
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FY-1 C Satellite Products

Summary and purpose of paper

This paper describes the products of FY-1 C such as image products, land products, ocean products and atmosphere products.

FY-1C Satellite Products

According to the requests from meteorology, hydrology, climate changes, agriculture and environment monitoring, FY-1C system is designed to produce many kinds of products. These products can be classified into four types. They are image, land, ocean and atmosphere products. Each type has several products.

1 Image Products

Images are very important products in FY-1C processing system. They play a great role in disaster monitoring, such as forest fire, flooding, blizzard fatality etc. Image products of FY-1C include stretched gridded image, special event images, orbital images, image mosaics in regional and globe size and products images. Table 1 is the specification on image products from FY-1C. Figure 1 is an example of image mosaic from FY-1C in polar stereographic projection over North Hemisphere.

Table 1 The Specification of Image Products

Products	Spatial Resolution	Geographic Coverage	Output Format	Schedule
Orbital Images	1.1km, 2km, 4 km	Pass by pass	gridded image	daily
Stretched Gridding	1.1 km, 2 km, 4 km	Pass by pass	gridded image	daily
Polar Image Mosaic	3.7 km-equator 7.4 km- equator	Over Asia Global	image, archive tape	daily
Mercator Image Mosaic	5.7 km- equator 11.4km- equator	Over Asia Global	imagery	daily
Special Event Imagery	1.1 km	Selectable Orbit Segments	imagery	daily

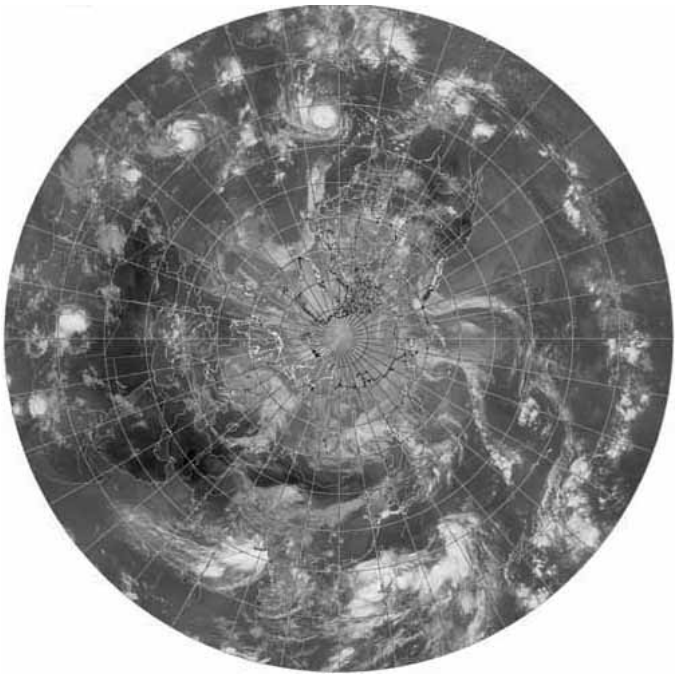

Figure 1 The image mosaic over North hemisphere from FY-1C

2 Land products

Land products are used to monitor the variation of land cover and environment changes, such as using vegetation index to monitor the crop growing condition over China or world, using snow cover data in snow disaster monitoring and in research of climate changes. FY-1C system provides many products over land in both regional and global scale. Table 2 is the summary of land products. Figure 2 is an example of vegetation index.

Table 2 Summary of Land products

products	Resolution	Geographic Coverage	Output Format	Schedule
Vegetation Index	0.01°×0.01° 0.04°×0.04°	Asia Global	Imagery, output archive tape	daily
Snow Cover	0.01°×0.01° 0.05°×0.05°	15°- 55°N 70°-155°E	imagery, output archive tape	daily
Surface Albedo	0.01°×0.01° 0.05°×0.05°	15°- 55°N 70°-155°E	imagery, output archive tape	as request
Surface Temperature	0.01°×0.01° 0.05°×0.05°	15°- 55°N 70°-155°E	contour chart archive tape	average of 5 or 10 days
High Resolution Data	0.01°×0.01°	over China	archive tape	Daily

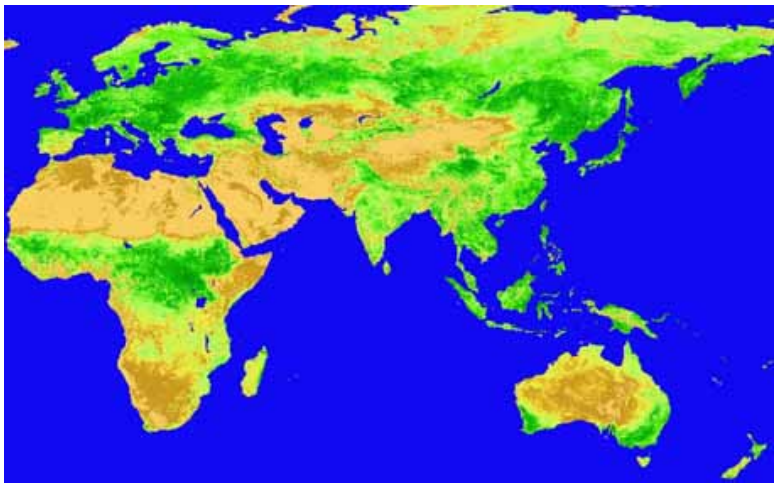

Figure 2 An example of vegetation index in August 1999

3 Ocean Products

FY 1C satellite has 1 short wave IR channel, 2 long wave IR channels and 3 ocean color observation channels. These data can be used to produce many products over ocean, such as sea surface temperature, sea ice and ocean color and so on. Table 3 is the summary of ocean products. Figure 3 is an example of global SST image.

Table 3 Summary of Ocean products

Products	Resolution	Geographic Coverage	Output Format	Schedule
SST	0.5°×0.5°	0°-50°N 105°-155°E	output chart archive tape	
SST	0.5°×0.5°	Global	output chart archive tape	Daily
Sea Ice	0.02°×0.02° 0.05°×0.05°	36°- 41°N 117.5°-122.5°E	imagery, output archive tape	daily in winder

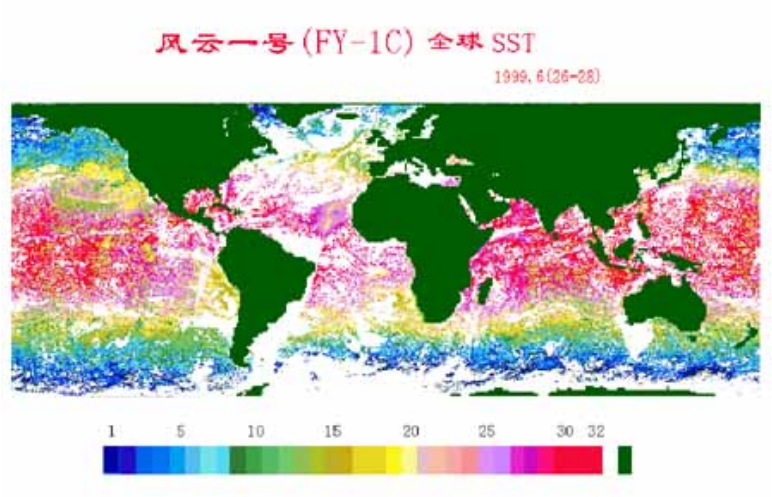

Figure 3 An example of global SST image

4 Atmosphere Products

FY-1C atmosphere products include cloud parameter, out going long wave radiation(OLR) and water vapor total content. These products are very useful for weather analysis and research of climate changes. Table 4 is the summary of atmosphere products. Figure 4 is the contour of OLR over China.

Table 4 Summary of Atmosphere products

Products	Resolution	Geographic Coverage	Output Format	Schedule
Cloud Parameter	0.5°×0.5°	0°-50°N 105°-155°E	output data archive tape	
Cloud Parameter	0.5°×0.5°	Global	output data archive tape	daily
OLR	0.5°×0.5°	0°-50°N 75°-150°E	contour chart archive tape	Average of 1,5, 10 or 30 days
OLR	0.5°×0.5°	Global	contour chart archive tape	Average of 1,5, 10 or 30 days
Water Vapor Total Content	0.5°×0.5°	36°- 41°N 117.5°-122.5°E	imagery, output archive tape	daily in winder

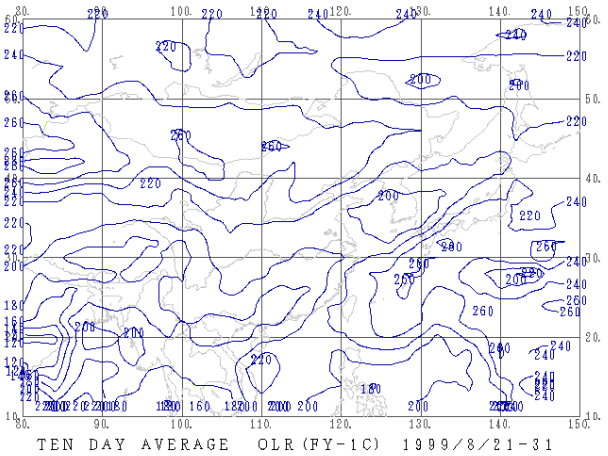

Figure 4 The contour of OLR over China.