Current FY satellite and instruments status on orbit

http://www.nsmc.org.cn/nsmc/en/operation/status.html



Satellite Status						
Op = Operational						
P = Pre-operational						
B = Back-up, secondary						
L = Limited availability						



GEO instruments status:

Sateli (statu		Location Launch		Ш	O instru	ments	
FY-2G	(Op)	99.2° E	2014-12- 31	S-VISSR			
FY-2H	(L)	79° E	2018-06- 05	S-VISSR			
FY-4A	(Op)	105° E	2016-12- 11	AGRI	GIIRS	LMI	SEP
FY-4B	(Op)	133° E	2021-06- 03	AGRI	GIIRS	GHI	

LEO instruments status:

Sa	atellite	Launch	EO instruments							
FY-3C	(1)	2013-09-23	MERSI	VIRR	IRAS	MWTS	MWHS	MWRI		
F1-3C	(L)	2013-09-23	SBUS	TOU	ERM	SIM-II	SEM	GNOS		
FY-3D	(Op)	2047 44 45	2017-11-15	MERSI	HIRAS	MWTS	MWHS	MWRI	IPM	
11-30	(Ορ)	2017-11-13	GAS	WAI	SEM	GNOS				
FY-3E	(On)	2021-07-05	MERSI-LL	HIRAS-II	SIM-II	SSIM	MWTS-III	MWHS-II		
F1-3E	(Op)	2021-07-05	WindRAD	GNOS-II	Tri-IPM	SEM-II	X-EUVI			

Instrument Status									
	Operational(or capable of)								
	Operational with limitations(or Standby)								
	Operational with Degraded Performance								
	Not Operational								
	Functional, Turned Off								

FY-4B status

NSMC NCSW

- ➤ Launched on Jun. 3rd, 2021. Located at 133°E now.
- ➤ Satellites with 4 instruments onboard have passed the post-launch test.
- > Satellite data is available on NSMC website for trial application since June 1, 2022.
- ➤ 52 baseline products(L2) have been developed.
- Key Improvement :
 - GHI: High-speed imager, 1miniute interval;
 - GIIRS: Improved calibration;
 - SEP/FGM: Wide-range energetic and multi-direction particles, high-time resolution magnetic field.



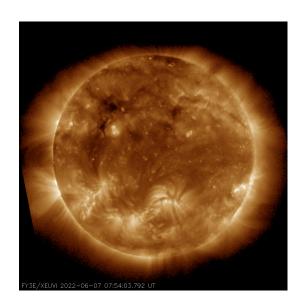


FY-3E status

NSMC NCSM

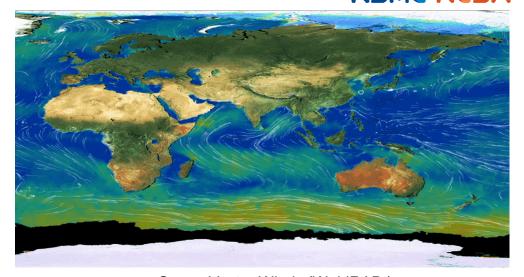
- ➤ Launched on July 5th,2021, local Equator Crossing Time: 5:40 desc.
- First operational meteorological satellite in EM orbit for civil use.
- > Satellite data is available on NSMC website for trial application since June 1, 2022.
- FY-3E provides an optimal temporal distribution with the mid-morning and afternoon satellites. NWP communities will significantly benefit.
- ➤ 46 baseline products(L2) have been developed.

X-EUV Animation



HIRAS-2 for NWP

	Sc	ore C	ar	·d	£.	or	E	H	RΣ	82	2 .	a.g	ai	n	зt	C	ΤI	-				
Domain	Parameter	Level	П	An	om	aly	y C	orr	ela	tlo	n.				ВM	SE	err	or				
		650		-				_						_	-		-	-				
	HGT	600	•	-				_					•	_	•		•	_				
		250	-	-	-								-	-	-	•	-	-				
		850		-				-	-					-	-		-	-	-			
	TEMP	500			-								-	_	_	•						
NH		250	-					-	_				•	_				-	-			
		850			-			_	_			_		_	_			-				
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	VWND	500				_										•						
		250		•	_	4								_	•	4						l



Ocean Vector Winds (WnidRAD)



Nighttime Lights (MERSI-LL)

International Application and Services



H.E. Csaba Kőrösi, the President of the 77th Session of the UN General Assembly, visits CMA on Feb. 2nd, 2023

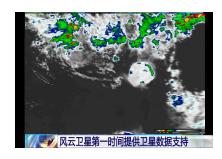
- Csabe Kórősi CHEN Zhenlin
- 中国有温度度用。 章记初度章 Solding Brough Solding

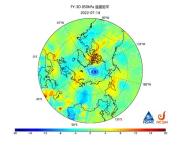
 蓝藻监查

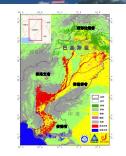
 Cyanobacteria Moz

- Data service covers 126 countries.
- FY ESM registered member: 30 countries
- Over 100 emergency supports (42 times in 2022)

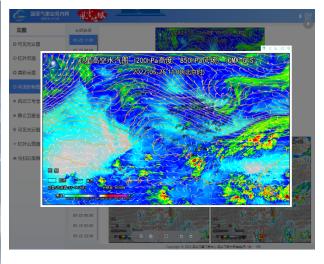








- FengYun Earth: an upgrade platform for weather application
- RICHCEOS: a new climate data records from Chinese Satellites





Refine By	Satellite microwave instrument primary climate product data for MWTS	
7ype	Start Date: 2008-11-29 End Date: 2020-05-09 Dataset series: Mctcorological satclife Time resolution: Orbit	
☐ Meteorological satellite (13) ☐ Radiation reference (4) ☐ Land satellite (5) ☐ Ocean satellite (6)	Description: The dataset is created through recalibration based on the PY-SA-B-CD MYTH LO data, providing the global atmosphile. 2000. The recalibration process includes the nonlinear endoding, notice characteristic optimization and static parameter modification less than 5% exhausted by reference instrument comparison. When dictable.	
Spatial coverage		
GBAL (18) DISK (1) REGC (1) OTHER (8)	Fundamental Climate Data Record of meteorological satellite passive microwave instrument-Mi (MWRI) Star Data 210:11-10	crowave Radiation Imag
Spatial resolution	Description: The dataset are created using the new algorithm that improved based on the operational calibration algorithm of MWR More The improvement of algorithm including correction of MWRI back tobe enrispion, correction of MWRI had reflector emission, correct	
1084-(1) 10044-(1) 10-1008 (1) 10-1008 (1) 4008M (1)	connected of accessed factor companed with the operational bigginess temperature dataset, excatication dataset are improved in it. Were details The Fundamental Climatic Data Record/FCDR) of Visible and Infrared Raiometer(VIRR) on Meteo	
Time resolution	Start Date: 2000-01-20 End Date: 2019-12-30 Dataset series: Microprological salcility Time resolution: 1 day	
ORBT (6) POAD (12) POAM (6) OTHER (2)	Description: This dataset provides the daily recalibration parameters for PF-10D and PF-13ABC VRBIt tong-term records for reflect calibration coefficients, the recultivation of refectance could be calculated from the digital number of earth view observations in the operiorities data records above improved accuracy and stability. When obtains	

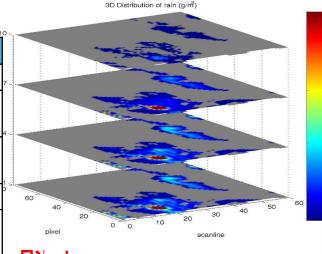
FY-3G (Rainfall Mission)

NSMC NCSW

FY-3G: planning in April 2023

- > China's first three-dimensional precipitation detection capability
- > Precipitation radar+microwave imager+optical imager: comprehensively improve cloud and rain detection level and improve the accuracy of precipitation numerical prediction.
- > Flexible observation mode to improve the ability to capture precipitation events;
- > Construct a virtual constellation for precipitation detection to improve the timeliness and consistency of observation data.

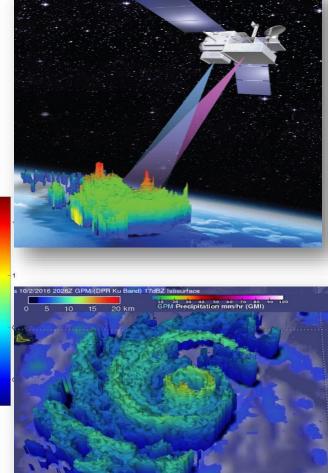
No.	Category	Instrument	
1.	Active Microwave	Precipitation Measurement Radar(PMR)	7
2.	Passive Microwave	Microwave Radiation Imager-Rainfall Mission (MWRI- RM)	4
		Medium Resolution Spectral Imager-Rainfall Mission (MERSI-RM)	
3.	Optical	High Accuracy On-board Calibrator (HAOC)	O
		Short-wave Infrared Multi-Angle Polarized Imager (MAPI)	
4.	Occultation Sounding	GNSS Radio Occultation Sounder-II (GNOS-II)	



□Newly

□Updated

□Inherited



FY-3F(AM)



FY-3F: planning in August 2023

On the basis of enhance the global imaging and atmospheric vertical detection of polar orbit meteorological satellites, FY-3F focuses on the imaging and detection of the earth's surface and atmospheric components, and is newly equipped ultraviolet hyperspectral ozone detection instruments.

No.	Category	Instrument
1.	Optical	Medium Resolution Spectral Imager-III (MERSI-III)
		Microwave Humidity Sounder-II (MWHS-II)
2.	Passive Microwave	Microwave Temperature Sounder-III (MWTS-III)
		Microwave Radiation Imager-II (MWRI-II)
3.	Occultation Sounding	GNSS Radio Occultation Sounder-II (GNOS-II)
		High Spectral Infrared Atmospheric Sounder-II (HIRAS-II)
4.	Hyperspectral Sounding	Ozone Monitoring Suite -Nadir (OMS-N)
		Ozone Monitoring Suite – Limb (OMS-L)
		Earth Radiation Monitor-II (ERM-II)
5.	Radiation Observation	Solar Irradiance Monitor-II (SIM-II)

□Newly
□Updated
□Inherited

