



# AOMSUC-15 FYSUC-2025

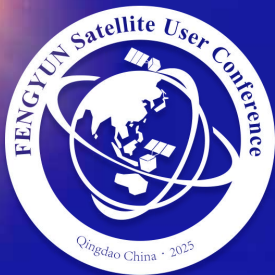
FIFTEENTH ASIA-OCEANIA METEOROLOGICAL SATELLITE USERS' CONFERENCE  
THE JOINT 2025 FENGYUN SATELLITE USER CONFERENCE

## CMA cast satellite data receiving and processing system operation in Myanmar

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### 1. Operation history

- 2012- CMA cast system installed
- 2014- relocation the CMA cast system
- 2016- CMA cast experts last visited to MYANMAR.
- 2019- Hardware problem
- 2021- informed about the status
- 2022- received new CMA cast system

### 2. Utilization

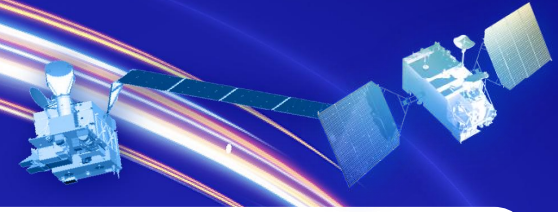
### 3. Capacity building and training needs



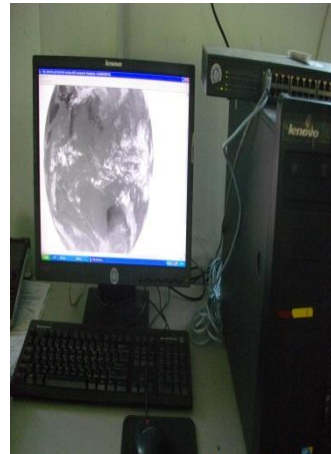
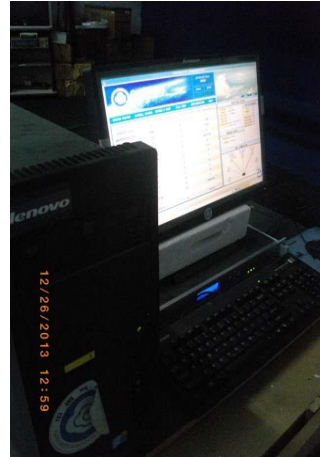


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2012- CMA cast system installed in the head office at Nay Pyi Taw.



CMA Cast system 2012 -2013

# 2014- relocation the CMA cast system



old building



new building.



The distance of old building and new building is between 80m or 100 m generally.

## Receiving antenna site requirement

The CMACast remote site should abide by the following suggestions and requirements to ensure the remote works stably and durably.

Figure 5 is the side view diagram of reinforced concrete foundation of satellite antenna.

1 The site of receiving antenna should be carefully selected to avoid interference from terrestrial signals.

2 Power supply requirements

• Voltage: 220V AC 50Hz

• Power: 5000W

• The earth: There is the power socket ground on the wall, not on the left, not on the right.

• The voltage between neutral and hot is 220V, hot and ground is 220V, neutral and ground is less than 2V.

• Uninterrupted power system should be used to provide clean and uninterrupted power supply.

3 It requires a free view field to the satellite within 30° solid angle of antenna direction at all times, without buildings,

trees, walls, or hills to block the signal from the satellite.

4 The antenna is under the protection range of the building lightning conductor.

5 It should have separate grounding for indoor and outdoor equipment and the resistance of the ground system should be no greater than two ohms.

6 The length of the cable between outdoor and indoor equipment should be less than 50 meters.

7 Antenna groundwork should be built according to attached illustration.



Fig. 5 Reinforced concrete foundation of satellite antenna

• Concrete foundation should be built on the top of a roof or on the ground that can carry relevant weight.

• Foundation dimension should not less than 1.5x1.5x0.25m. If the foundation is built on ground, the height of the base should not less than 10 cm.

• Attached 6 built-in hardware should also be prepared.

• The suggested grade of cement is 42.5#, The concrete strength should be higher than C30.

• Antenna weight is around 1000G.

• The reinforced concrete foundation can basically resist 10 m/s (12 level gale equivalently).

Relocation in 2014 by the DMH staff and technical support by CMA Cast help desk





# 2016- CMA Experts visited to MYANMAR for maintenance and training.



CMA cast data maintenance and training





# Maintenance view



BNC connector



Center pin broken



Check the antenna



Flexible pipe for water proof



Check the antenna



Bees nest



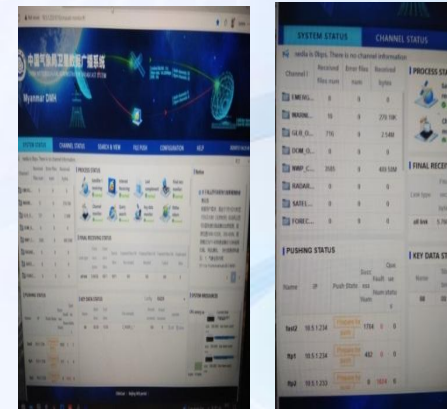
D: drive full



No data

Data unstable

# 2022-New CMA Cast system



AsiaSat 9



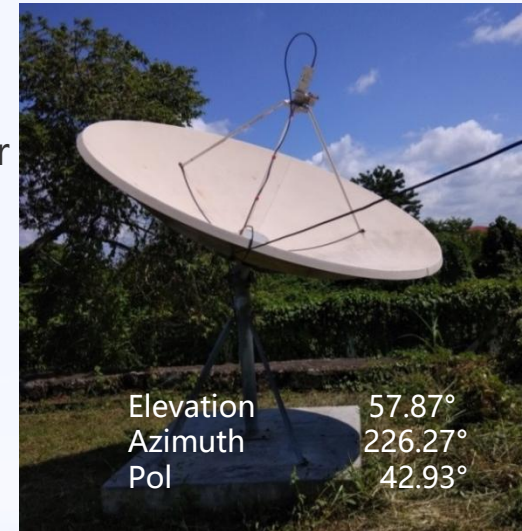
APSTAR-7



The C-band transponder of Asian-Pacific 7 satellite is the new carrier for CMACast broadcast.

APSTAR-7 satellite

Orbit position	76.5°E
Carrier center frequency	4120 MHz
Bandwidth	36 MHz
Downlink polarization	Horizontal
Downlink symbol rate	32700KSps
Modulation coding	8PSK $\frac{3}{4}$
Data rate	74 Mbps



Elevation 57.87°  
Azimuth 226.27°  
Pol 42.93°

Before the antenna switch over  
(14-10-2022)

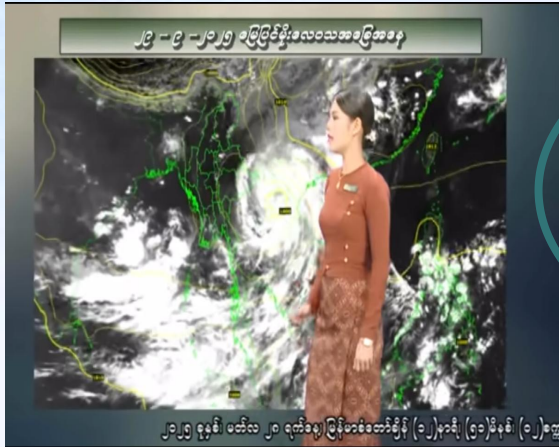
After the antenna switch over  
(14-10-2022)



# Utilization of GEO Satellite Data



Public weather services  
Weather forecasting  
Extreme weather warning  
Tropical Cyclone



TV news



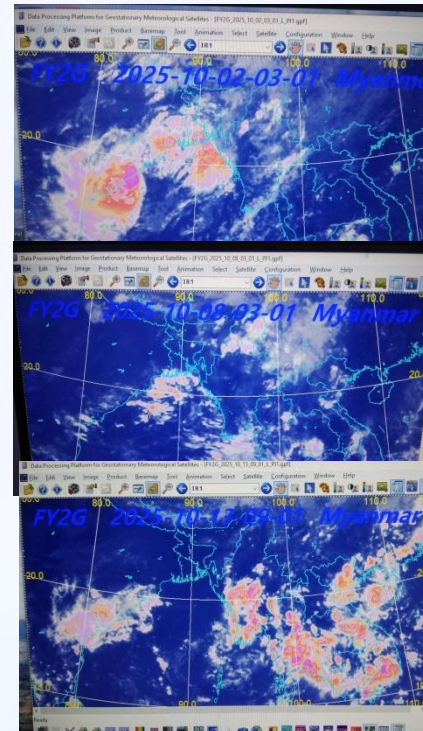
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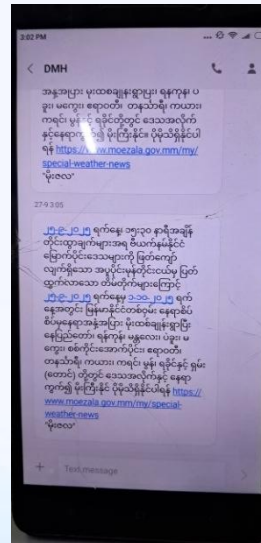
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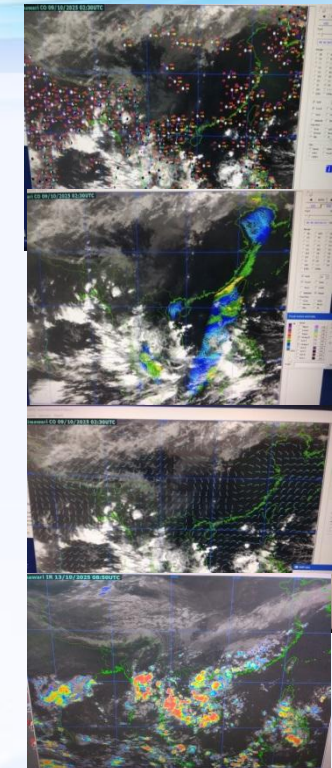
<https://myanmar.gov.mm/>



SMS



Facebook





# Capacity building and training needs

1. To be automatically delete the old file.
2. Continuous training is required to maintain local technical expertise in software, networking, and hardware for operator staff and weather analysis tools utilization for forecaster staff.
  - Training Course on the Application of Meteorological Satellite Products
  - Training Course for FY-4A Satellite Product Application
  - Training Course for operation and maintenance of CMACast receiving system



Thank you

