Cartosat-3 Improved Products

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Cartosat-3 Improved Products

- 3rd generation IRS mission launched on 27th Nov 2019 for Cartography Applications with PAN, MX Sensors
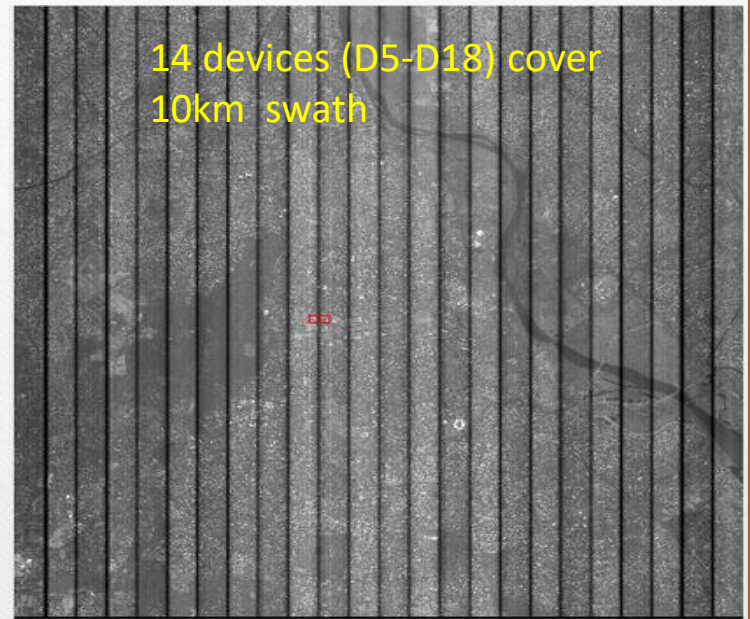
Sensor	Processing Level	Output Resolution	Swath (km)
PAN	Geo Orthokits Orthorectified	28 cm	17
MX	Geo Orthokits Orthorectified	1.1 m	17

- Current operational data products are generated and disseminated to users after meeting QC criteria

- In addition, new set of data products are introduced with enhancements in terms of – redefined spatial sampling, frame size(sub-swath) and uniform radiometric quality

These improvements are implemented based on the following QA factors:

- PAN resolvability at 45 cm spatial resolution
- Avoiding underlap in MX
- Avoiding severe optical butting of detector devices
- Normalized to Carto-2S swath
- Improved TAT and Processing time by 40%

14 devices (D5-D18) cover 10km swath

24 devices (D1-D24)cover 17km swath

To increase utilization of data products for applications like-

- Monitoring of Smaller AOI (~100 sqkm)
- Selected targets like monuments
- Object detection algorithms
- Asset information extraction, etc.

- Best efforts are put in realizing these new products for ease of handling and analysis -

Sensor	Processing Level	Output Resolution	Swath (km)
MX	Geo Orthokits Orthorectified	1.1 m	**10**
PAN+MX	Pan Sharpened	**45 cm**	**10**
PAN	Geo Orthokits Orthorectified	**45 cm**	17

- MX 10km sub-swath is constituted from the near centre of the array & enables uniform radiometric quality across the swath

- New PAN Sharpened 45cm product enables improved sharpness & uniform radiometric quality across the swath

Data use case studies are –utility & infrastructure mapping; mining; precision agriculture, monitoring of sewage treatment plants, encroachments monitoring, river cleanup, etc.

PAN Sharpened   MX   PAN

Tadicherla Open Cast Coal Mine, Karimnagar, Telangana

PAN Sharpened   MX   PAN
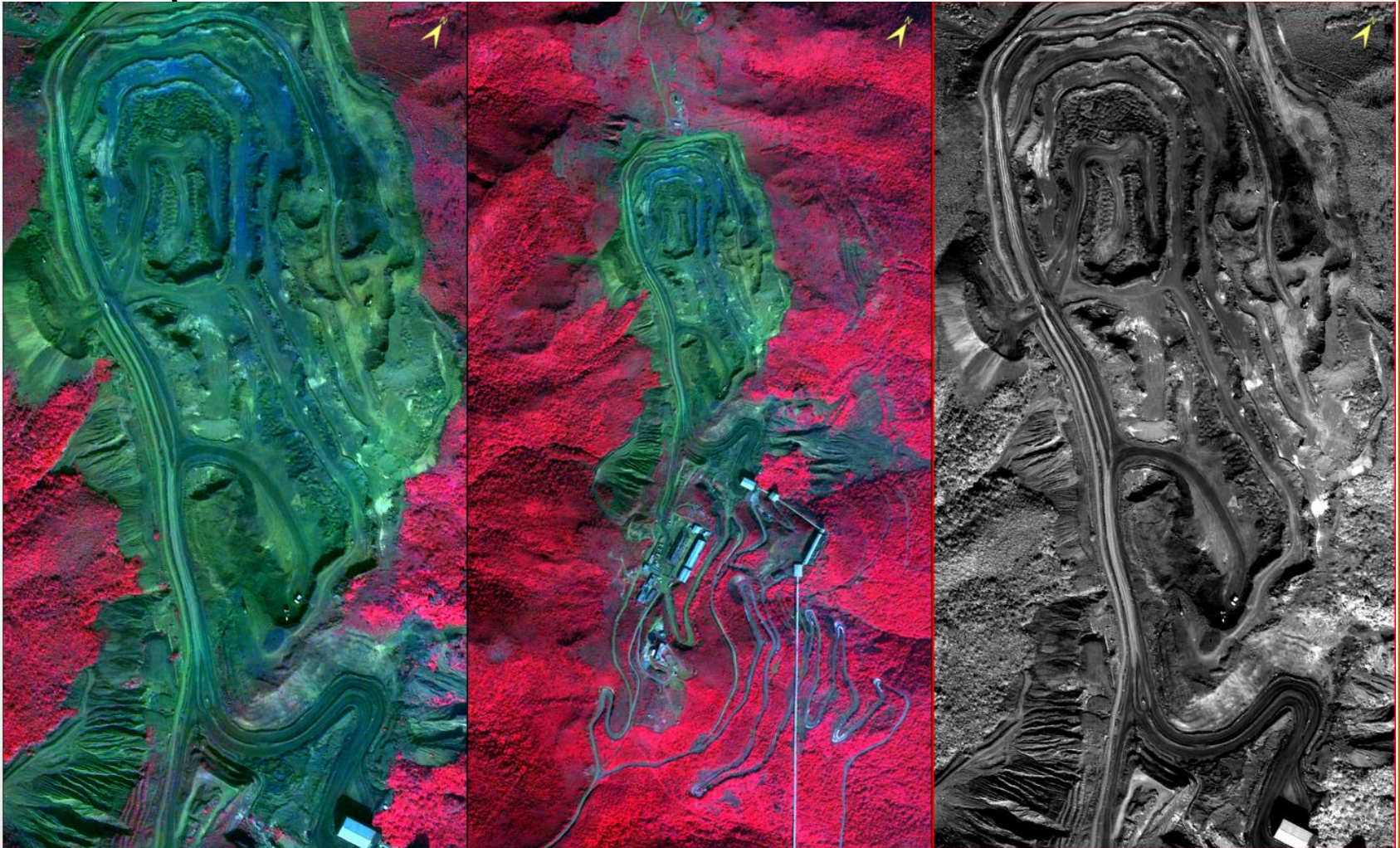
NMDC Iron Ore Mine, Bailadila(Bacheli complex), Chhattisgarh

PAN Sharpened   MX   PAN

EON Special Economic Zone, Pune, Maharashtra
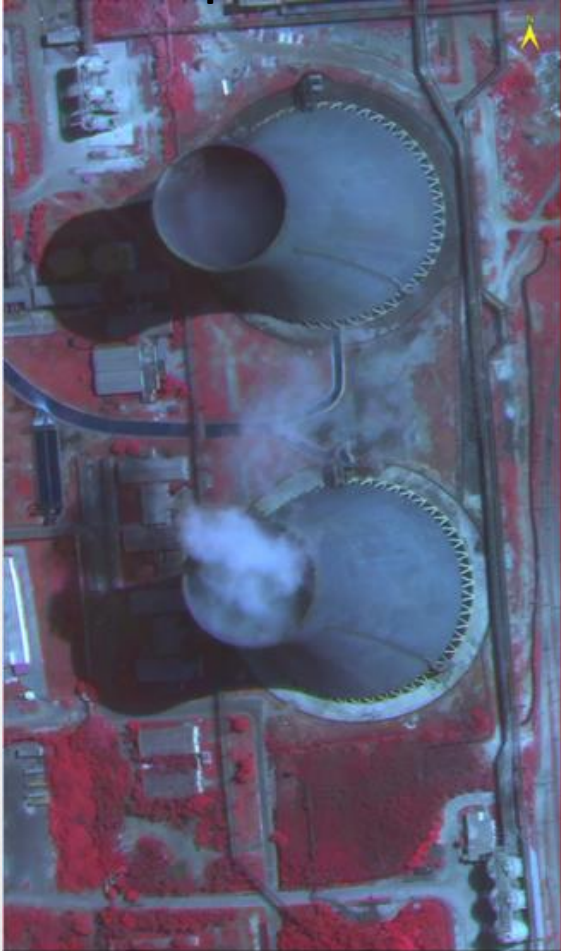
PAN Sharpened   MX   PAN

NTPC Thermal Plant, Visakhapatnam, Andhra Pradesh

PAN Sharpened MX PAN

NRSC CAL-VAL Site, IMGEOS, Shadnagar

Central Vista, New Delhi
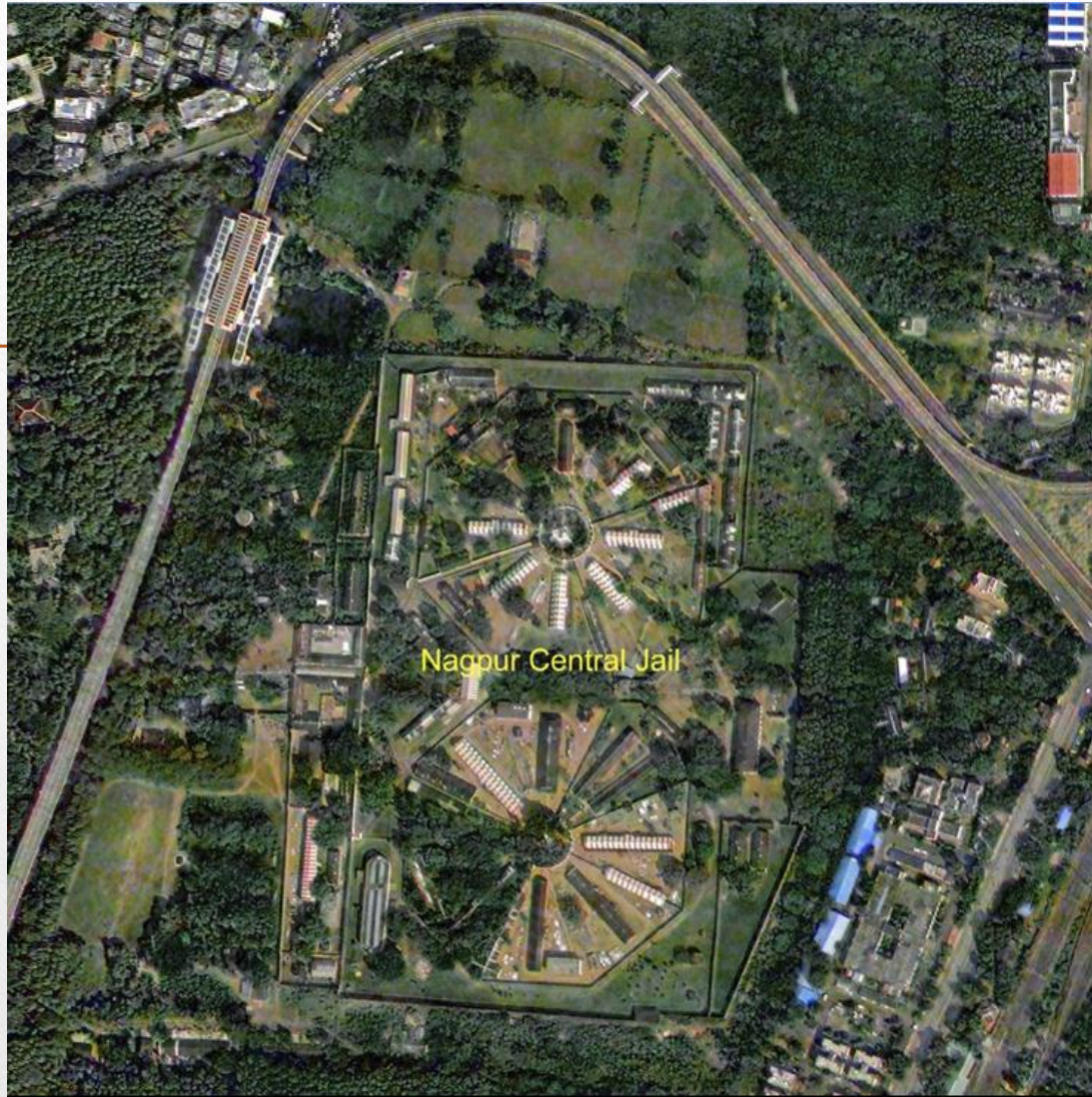
Central Jail, Nagpur, Maharashtra

Merged data product search

Merged data product catalogue display -PAN & MX scene selection

MX 10km Swath data products Catalogue

Thank You....