BHOONIDHI

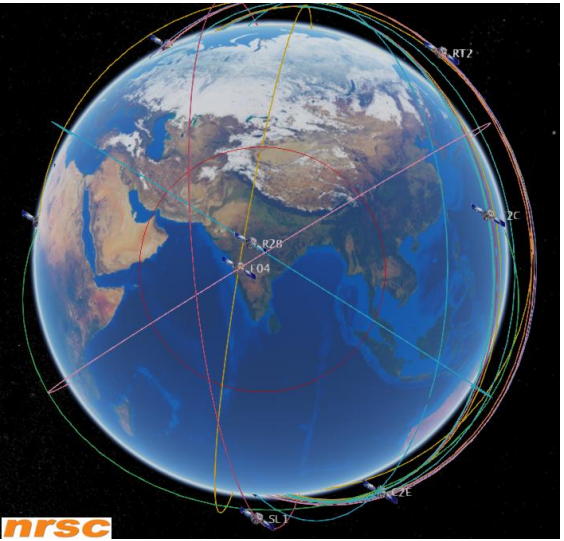
ISRO EO Data Hub

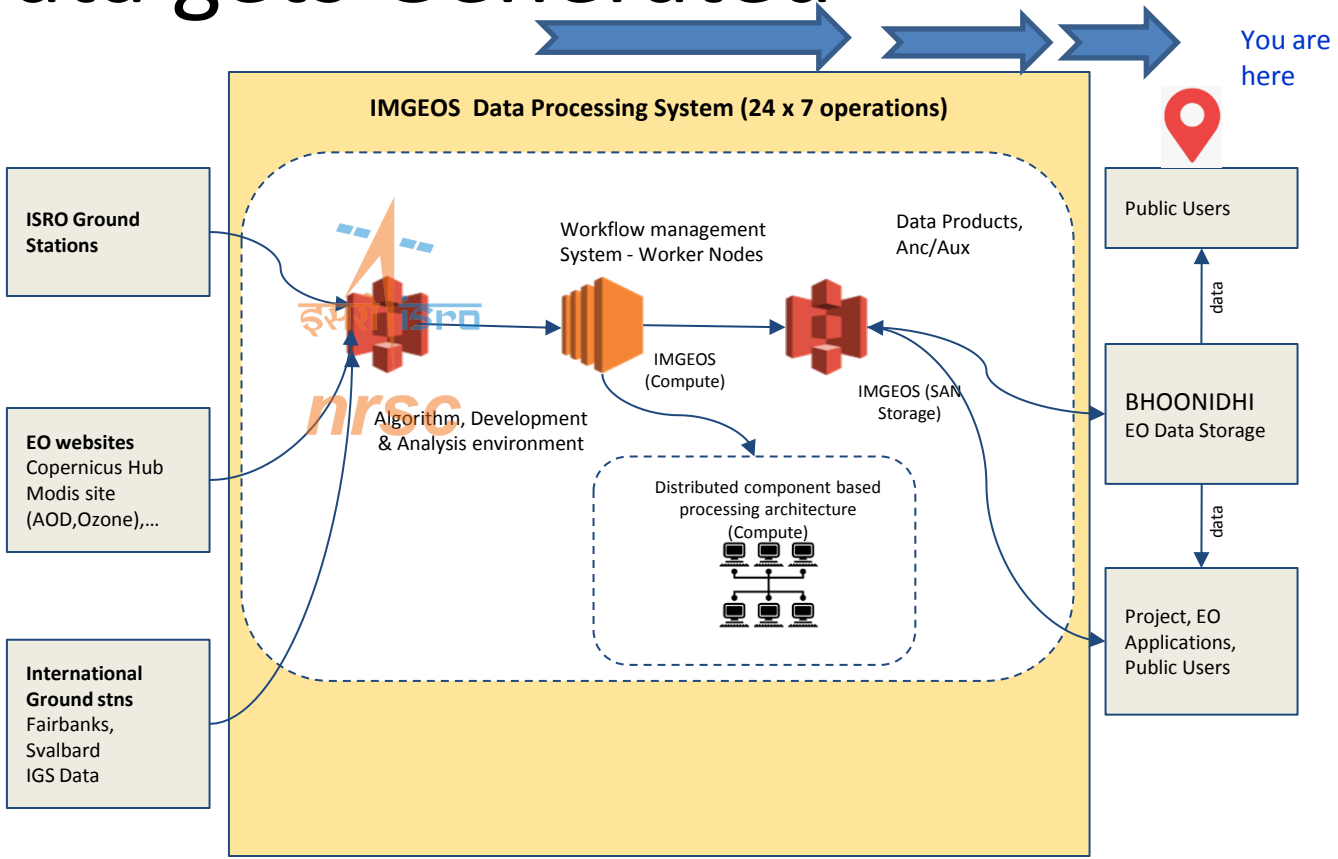
UZAIR MUJEEB
BHOONIDHI TEAM
https://bhoonidhi.nrsc.gov.in

Points Covered

- IMGEOS Processing Network
- Bhoonidhi – ISRO EO Data Hub
- Data Access Services
- Data Diversity
- Features
- Data Archive
- Data Access- Free and Priced
- Dissemination Mechanisms

IMGEOS Processing Network- How Data gets Generated

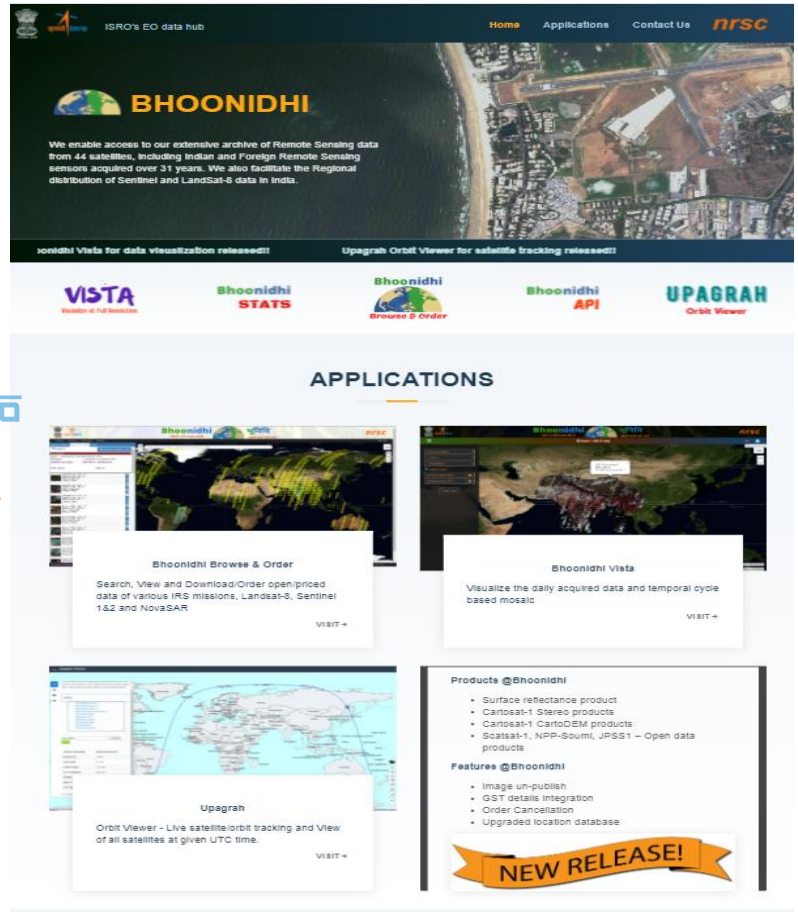




Bhoonidhi

Bhoonidhi enables access to our extensive archive of Remote Sensing data from 46 satellites, including Indian and Foreign Remote Sensing sensors acquired over 33 years.

We also facilitate the Regional distribution of Sentinel and LandSat-8/9 data in India.



Bhoonidhi Data Access- How you get Data

Bhoonidhi

Browse & Order

FREE&OPEN

Search, View and Download ,

Paid CART Interface,

Proforma (PI) ,

PRICED

Place workorder

https..

SFTP..

bhoonidhi.nrsc.gov.in/bhoonidhi/index.html

VISTA

Visulalize at Full Resolution

Visualize the NRT daily acquired data and temporal cycle based mosaic,

Quick animation of a point AOI

For Online Analysis

bhoonidhi.nrsc.gov.in/vista/index.html

UPAGRAH

Orbit Viewer

Orbit Viewer - Live satellite/orbit tracking

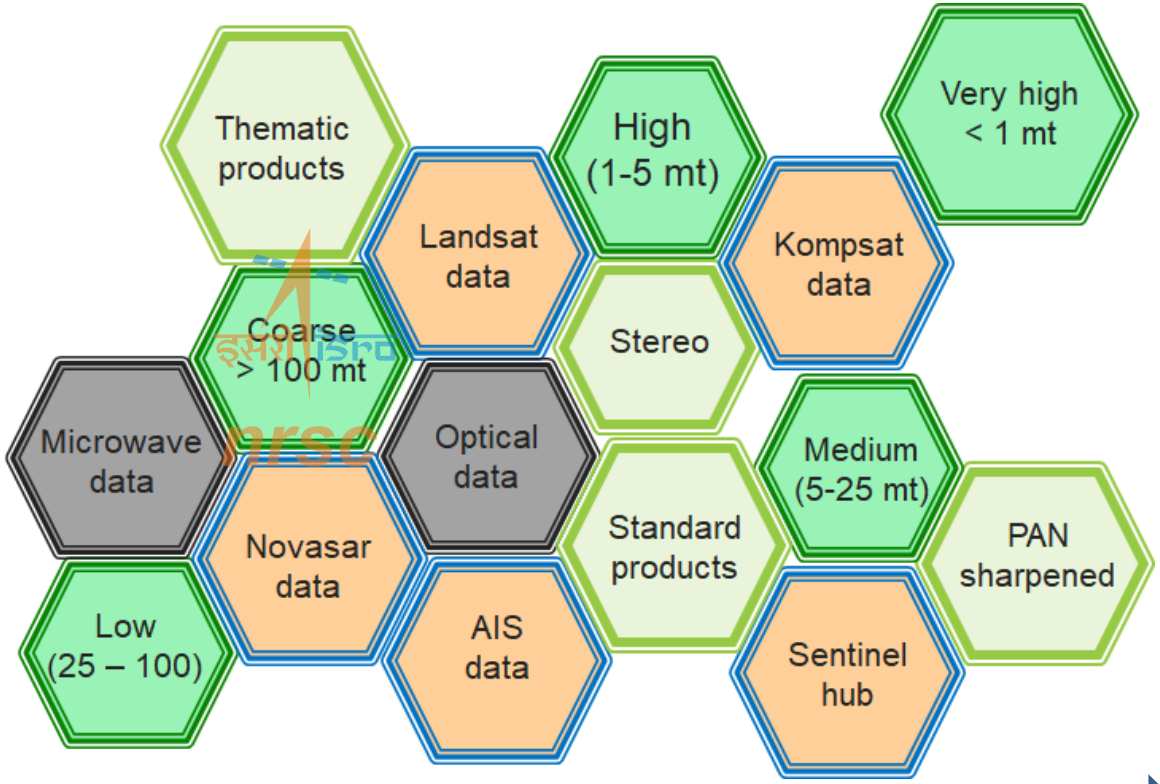
Quick View of all satellites at predicted UTC time.

For Online Analysis

bhoonidhi.nrsc.gov.in/upagrah

Data Diversity at Bhoonidhi

- Product types
- Foreign missions
- Resolutions
- Bands

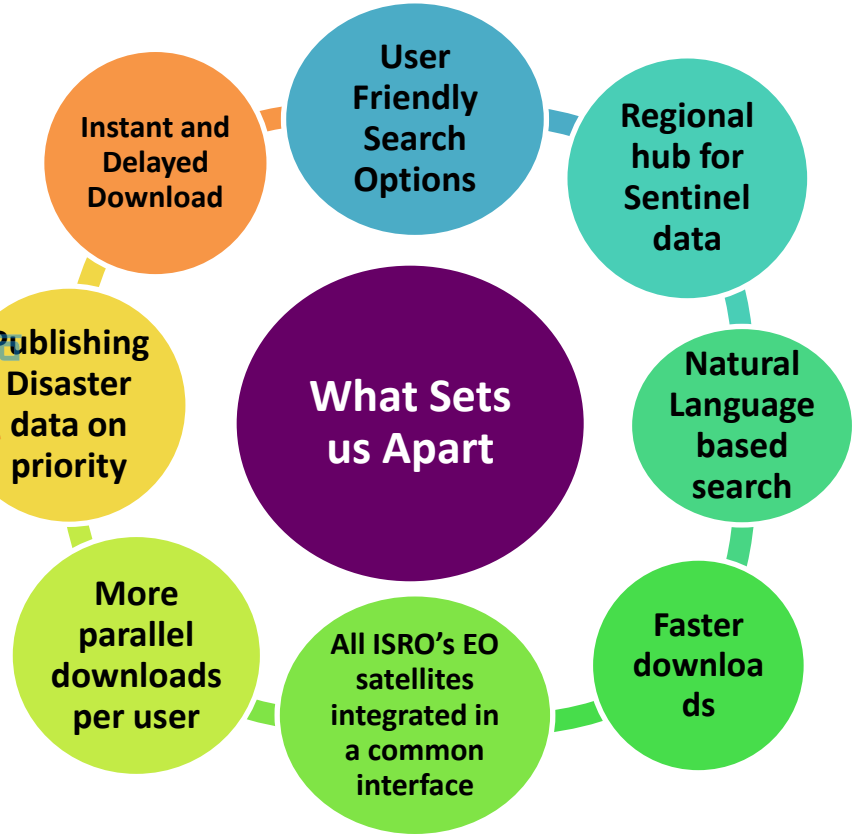


NEW RELEASE!

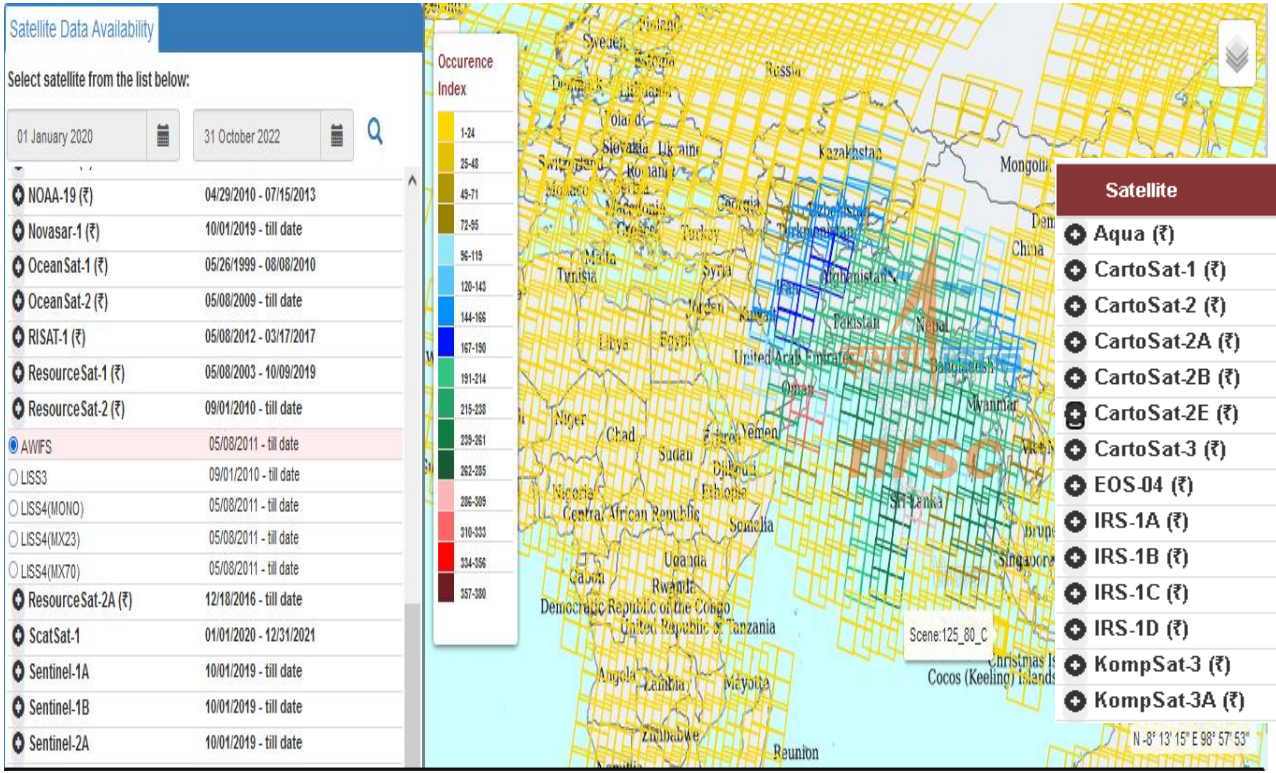
- EOS-04 (C-SAR) data products
- Landsat-8 collection 2
- Landsat-9
- Ortho products from IRS 1A/1B/1C/1D Liss sensor
- Scatsat-1, NPP-Suomi, JPSS-1: Open data products

Unique Features

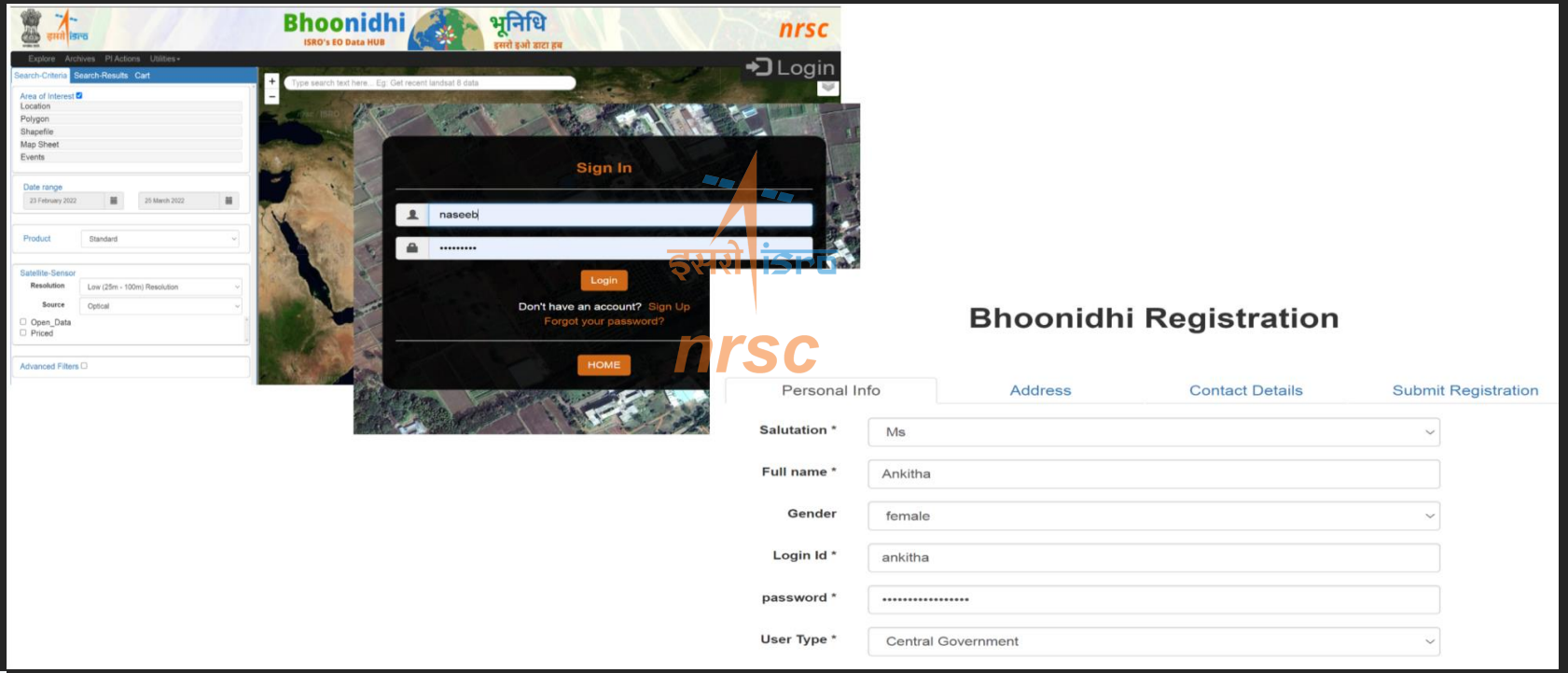
- ✓ User friendly search options to ease target area identification:
- ✓ Multiple satellite and sensors, resolutions, date range
- ✓ Event-based input specifications
- ✓ Natural language text based search options
- ✓ AOI specification using free draw on map, shapefile, polygon, points, pre-defined locations.
- ✓ Additional filtering based on cloud, polarisation, sub-scene, path, row.
- ✓ ePayment through Non-Tax Receipt Portal (NTRP) (https://bharatkosh.gov.in.) – **Enabled @Bhoonidhi**



Data Archive

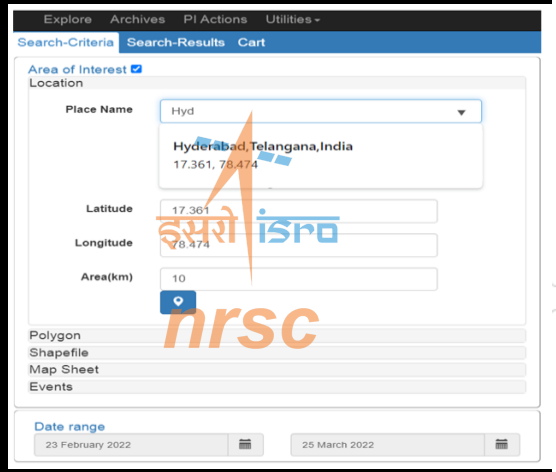


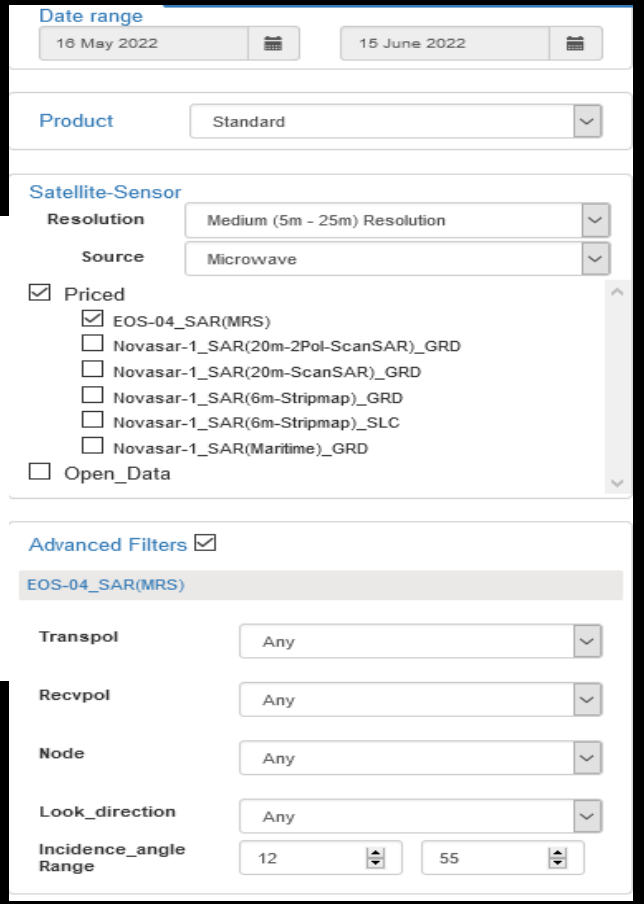
Data Access: Registration



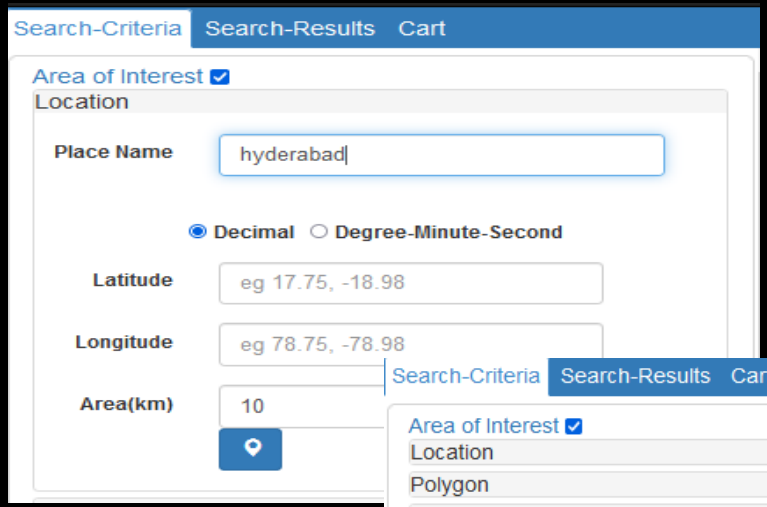
Product Search: Inputs

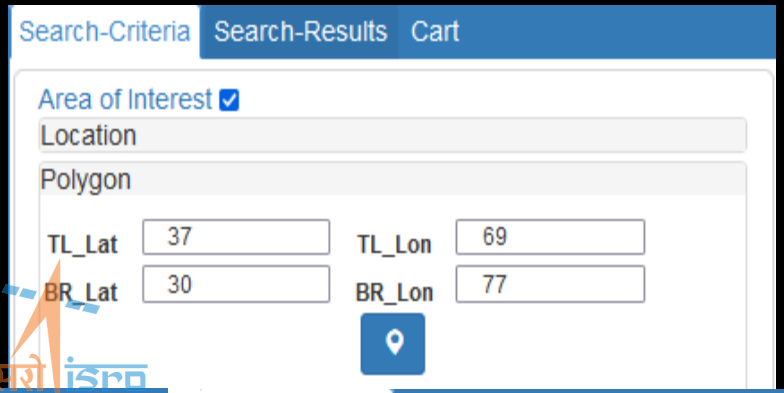
- Area of Interest
- Date Range
- Product Type
- Resolution
- Satellite-Sensor
- Events
- Advanced Filters
- Natural language text based search option

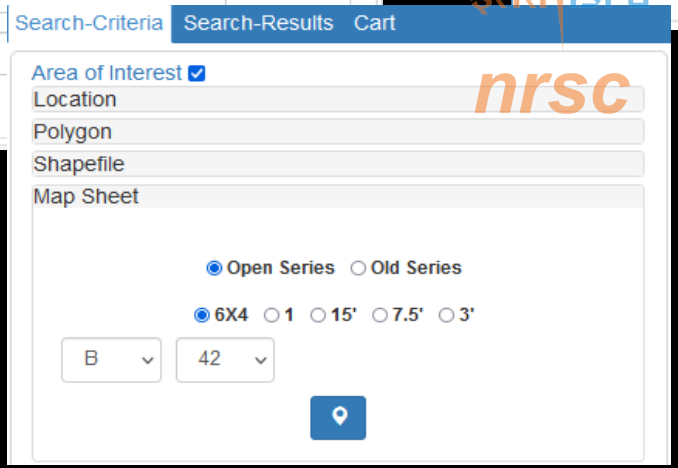


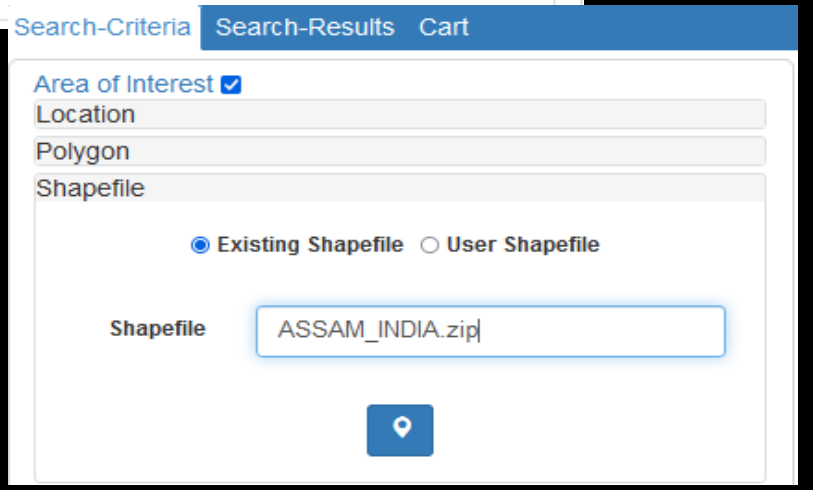


Product Search Inputs: Area of Interest



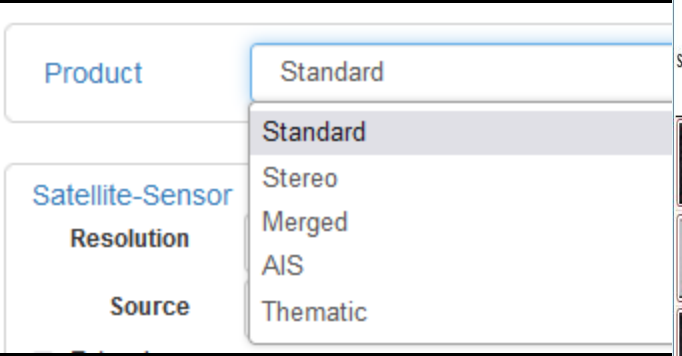


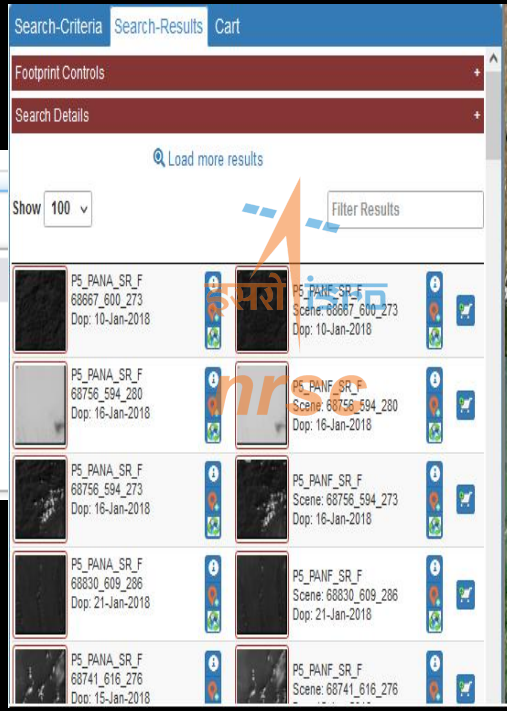


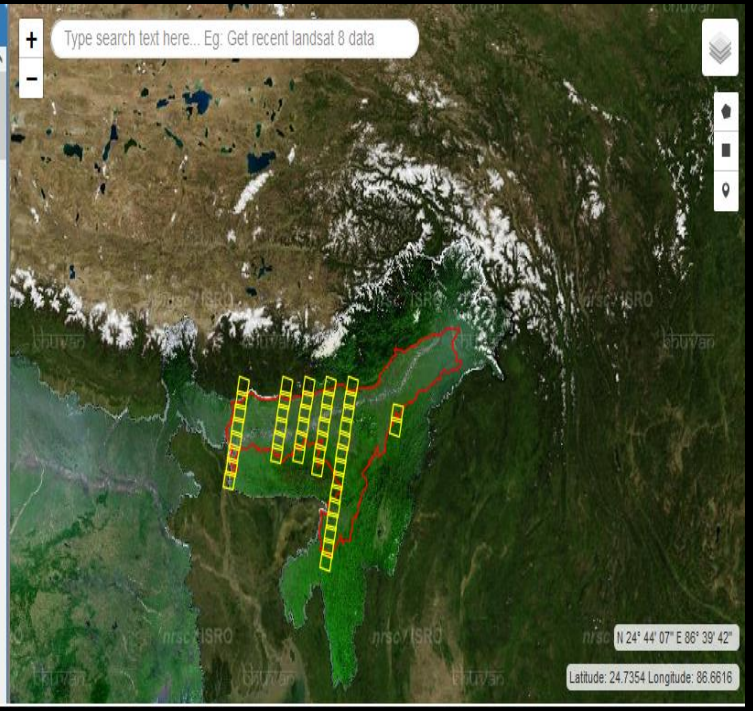


Location, Polygon, Shapefile, Map sheet based and free draw on map

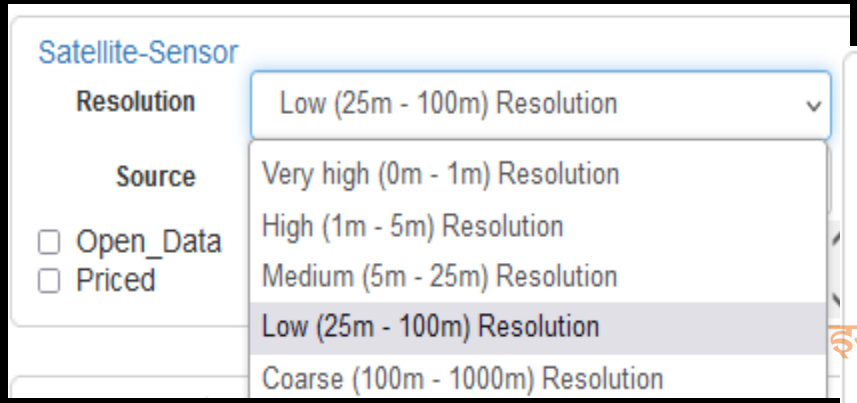
Product Search Inputs: Product Type







Product Search Inputs: Resolution



Resolution Categories:

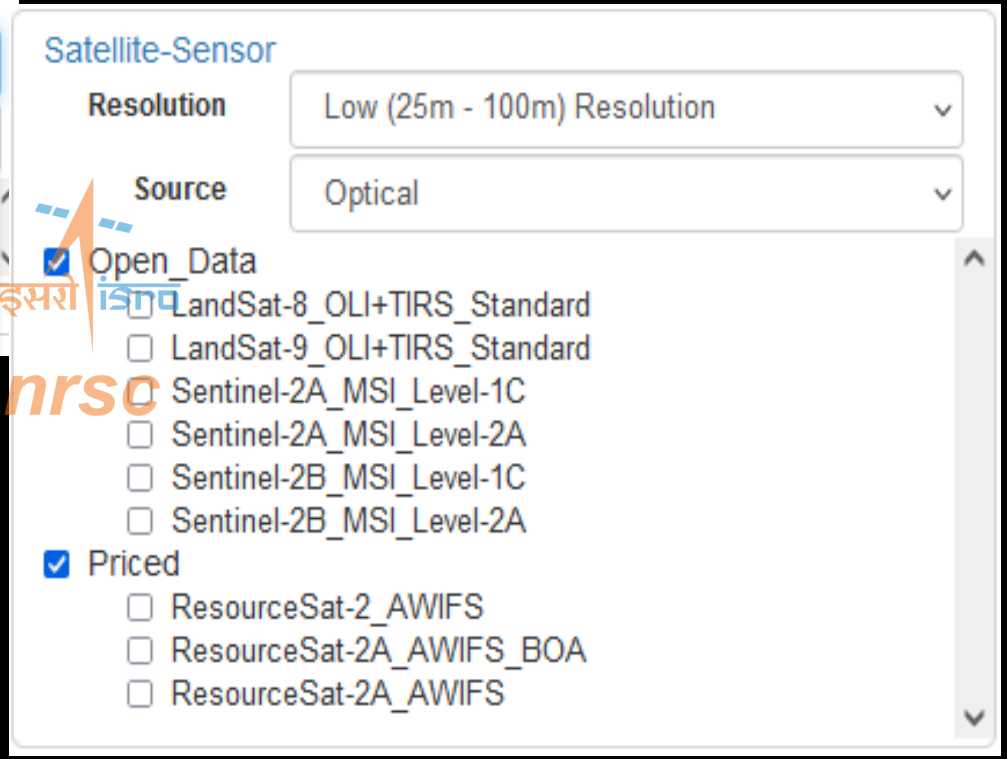
Very High (<1 m)

High (1m-5m)

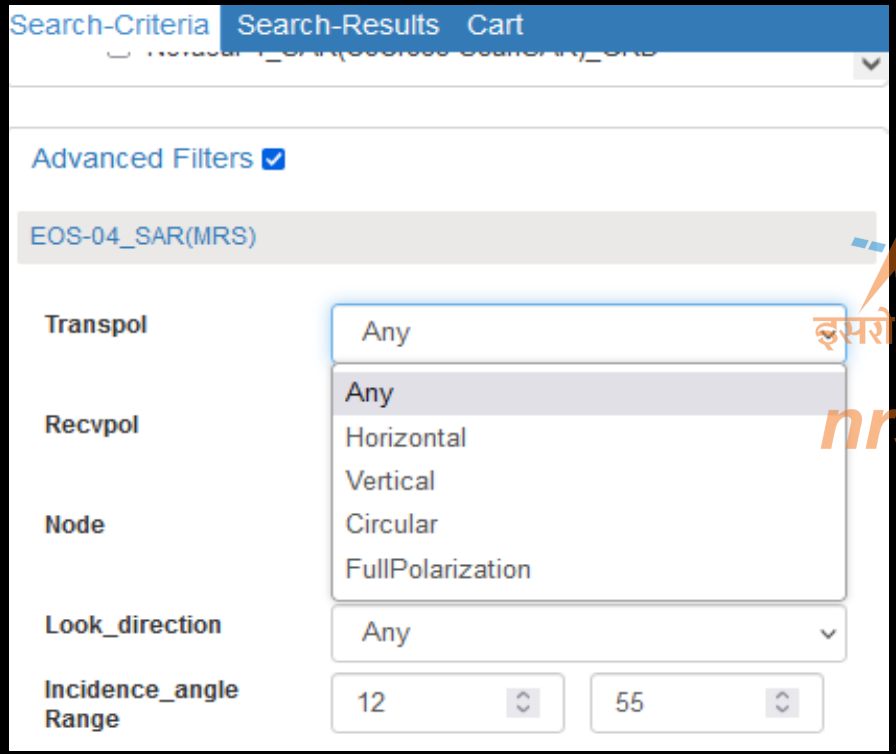
Medium (5m-25m)

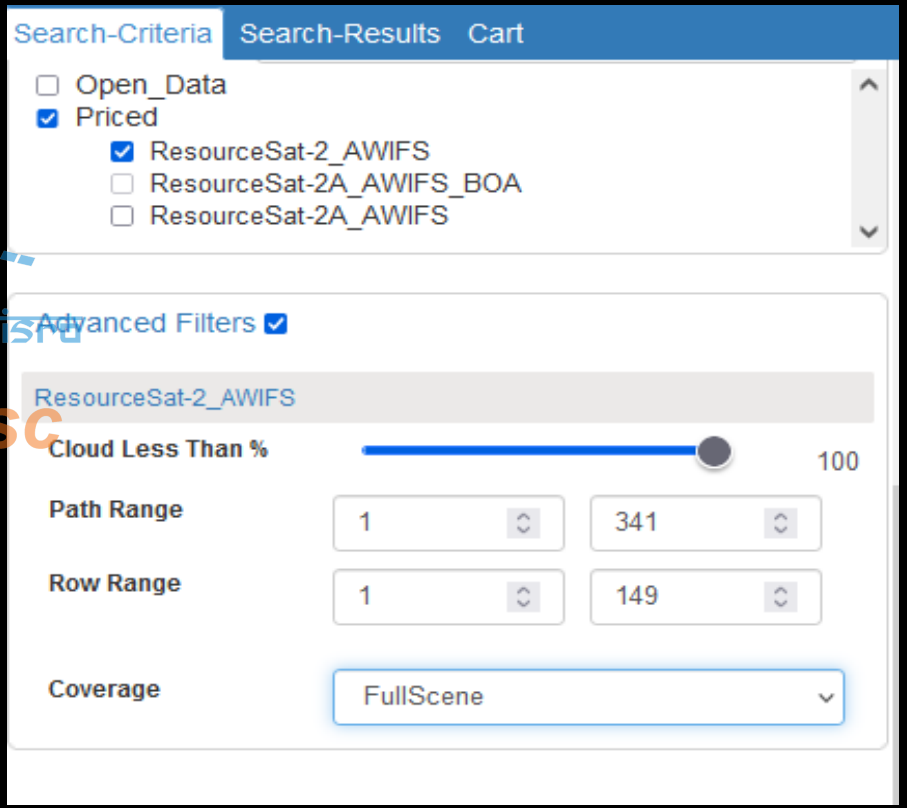
Low (25m-100m)

Coarse (>100m)

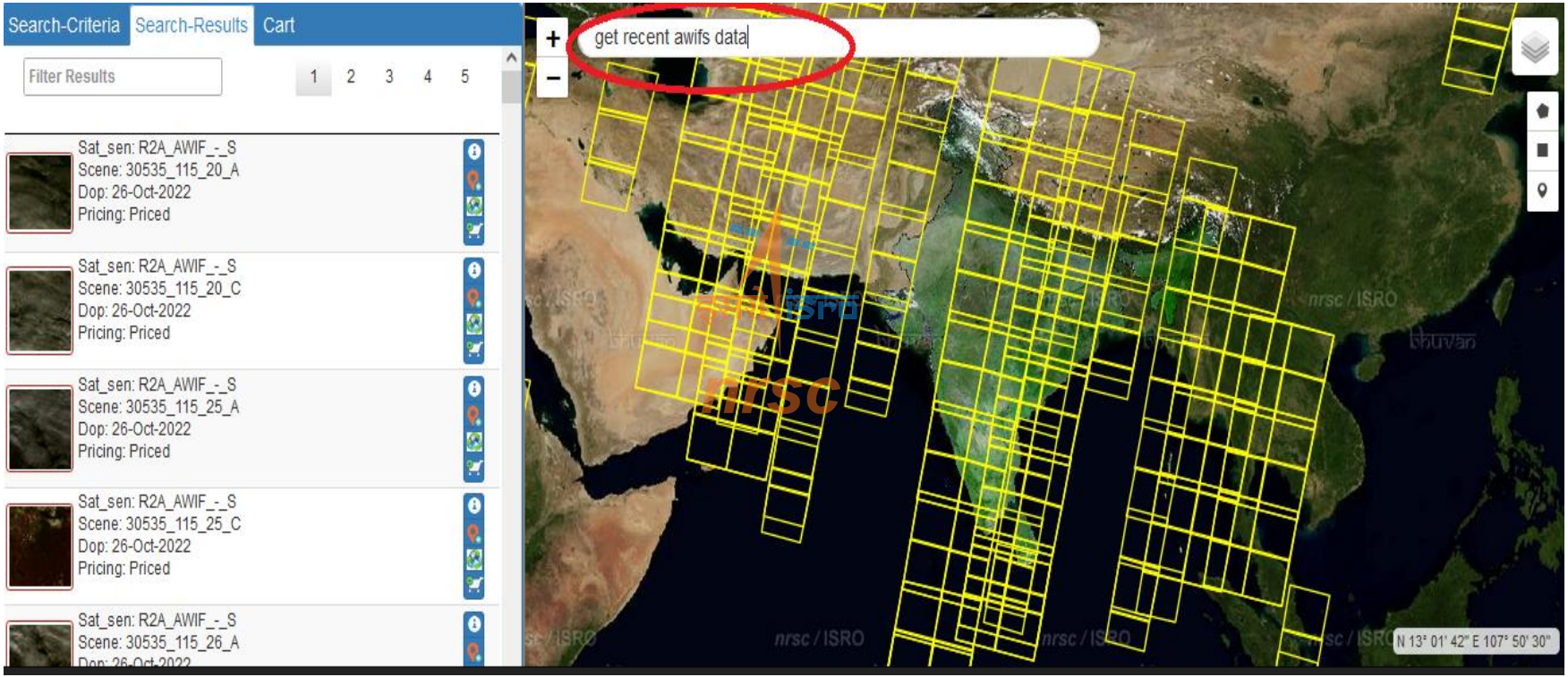


Advanced Filters

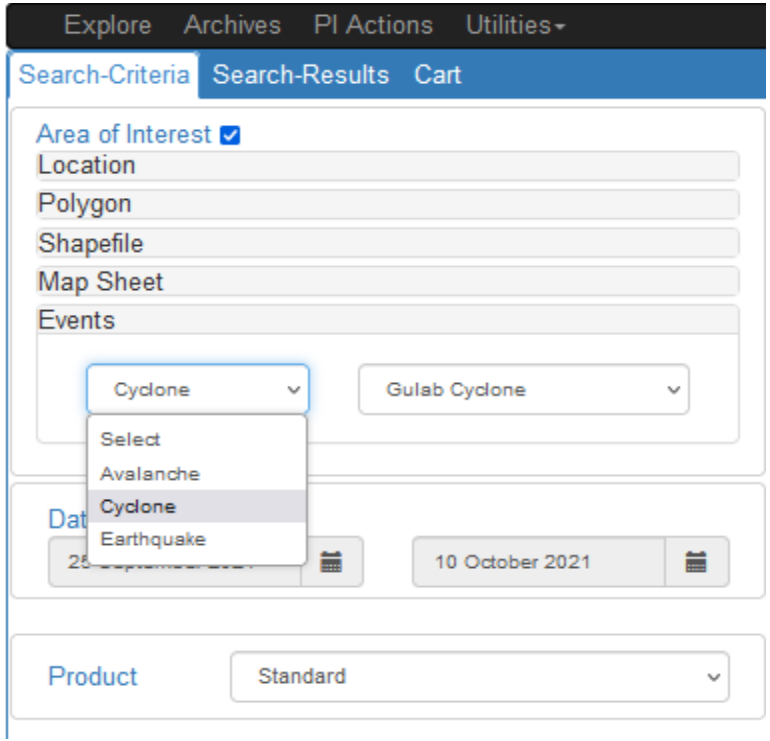


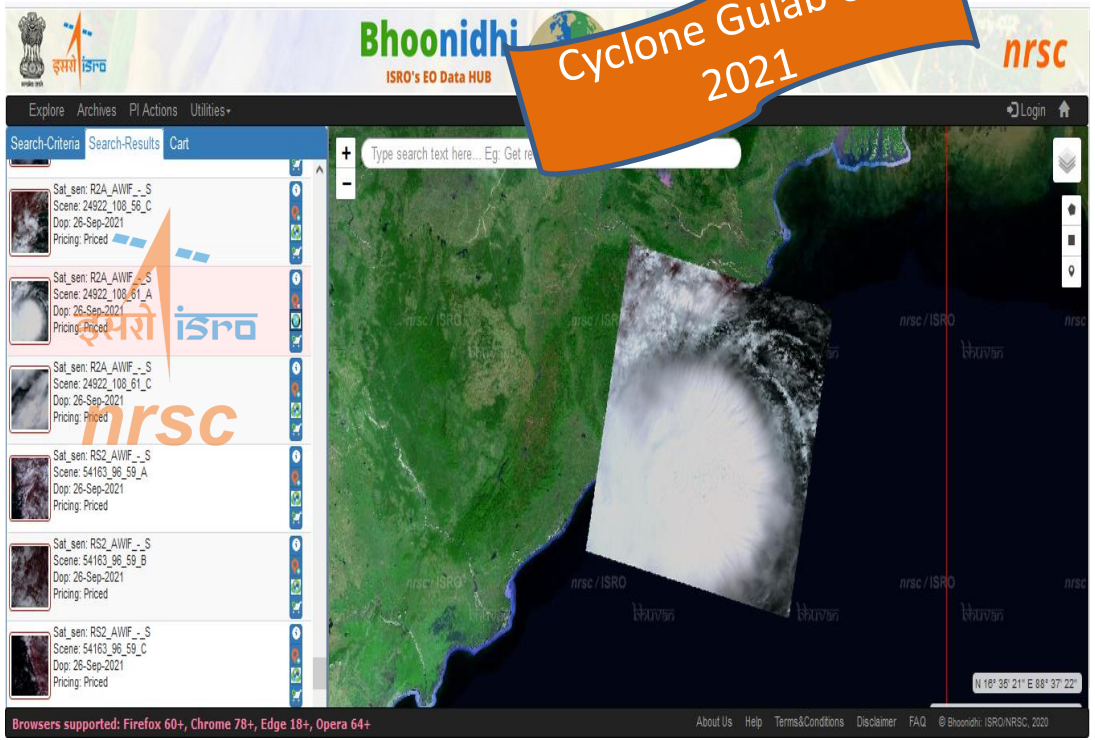


Natural Language Text Based Search



Events Based Search





Thematic Data

Product: Thematic

Satellite-Sensor

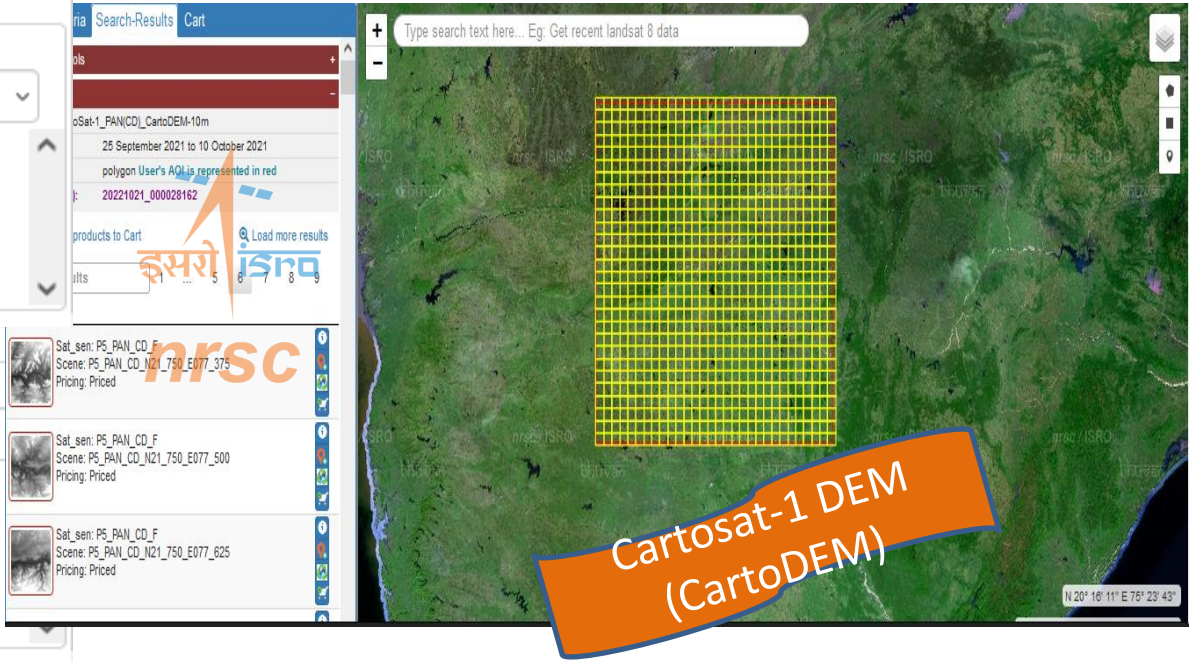
Source: Optical

- [x] Open_Data
  - [ ] OceanSat-2_OCM(GAC)_L2B-AerosolDepth
  - [ ] OceanSat-2_OCM(GAC)_L2B-Chlorophyll
  - [ ] OceanSat-2_OCM(GAC)_L2B-DifferentAttenuation
  - [ ] OceanSat-2_OCM(GAC)_L2B-SuspendedSediments

Satellite-Sensor

Source: Scatterometer

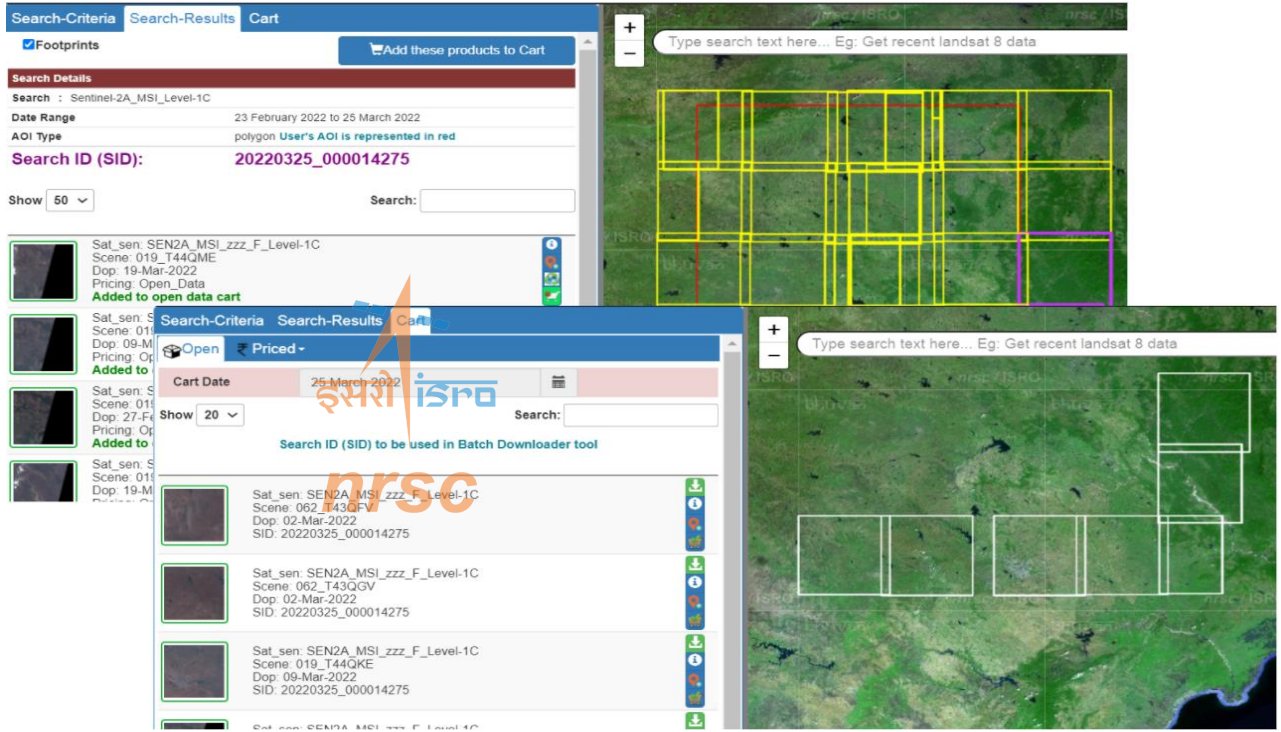
- [x] Open_Data
  - [ ] ScatSat-1_SCAT_2B
  - [ ] ScatSat-1_SCAT_3SH
  - [ ] ScatSat-1_SCAT_3SV
  - [ ] ScatSat-1_SCAT_3WW



Open Data

Search & Download

Oceansat2 OCM-GAC, JPSS1, Suomi-NPP, Landsat-8&9, Sentinel 1A, 1B, 2A, 2B

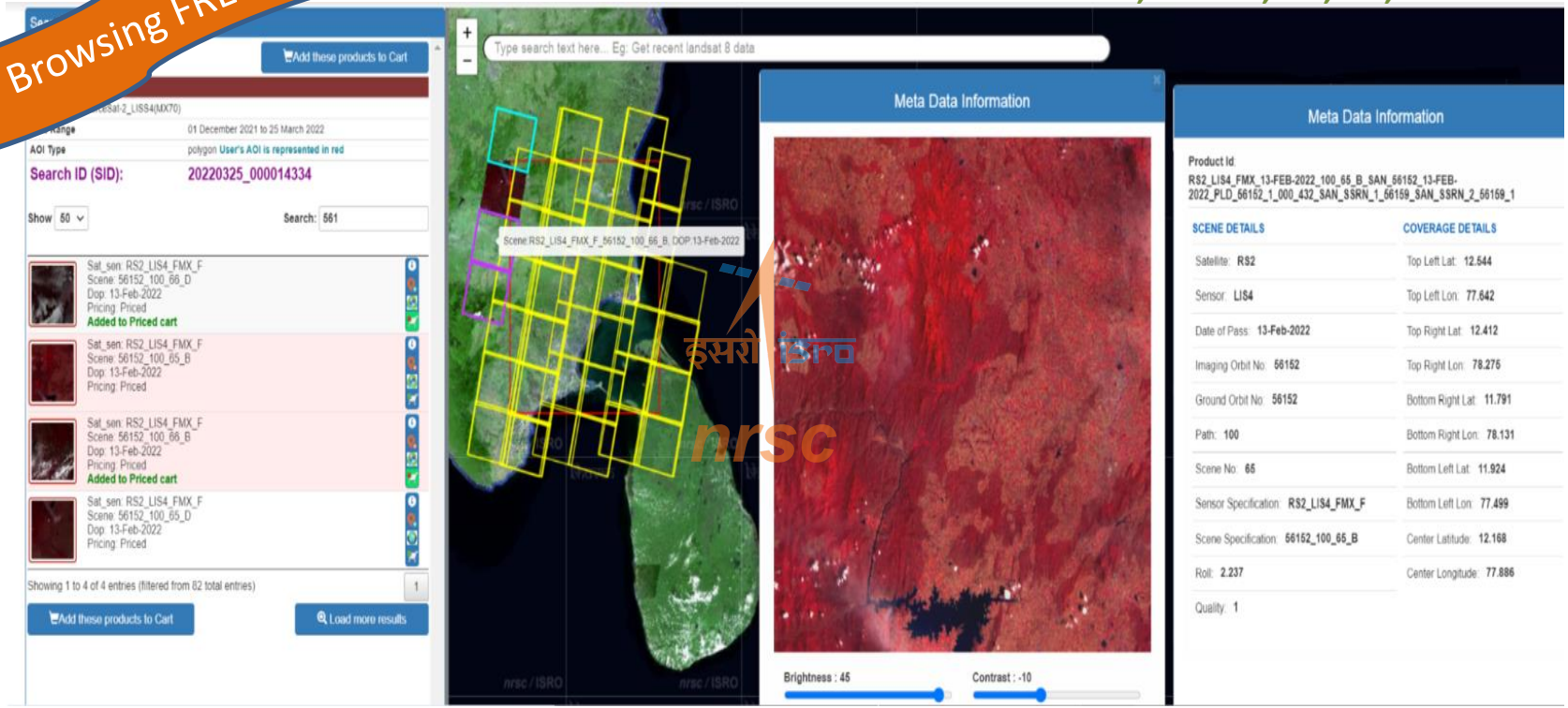


Search → Select → Add to Cart → Download

Priced Data

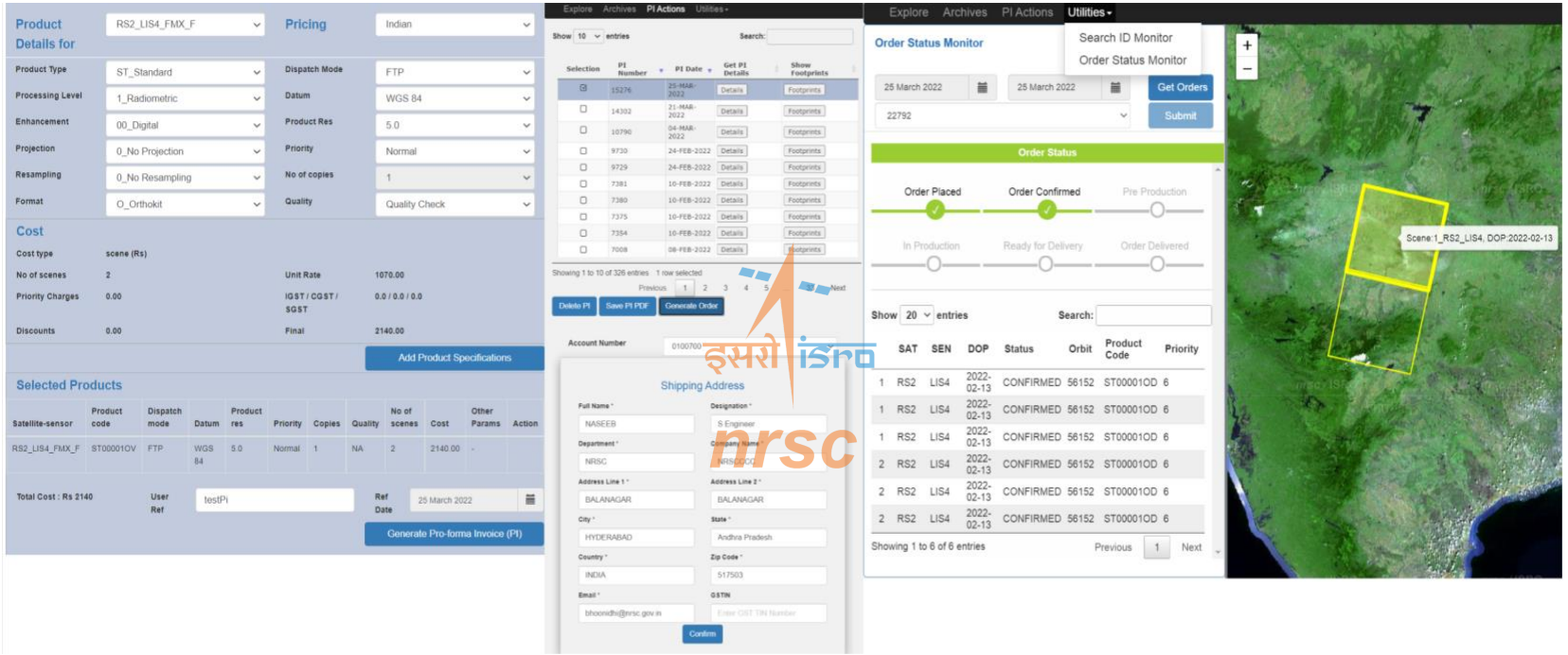
EOS-04, Cartosat-3, Cartosat-2S, Resourcesat-1, 2, 2A, Cartosat-1, IRS 1A, 1B, 1C, 1D …

Browsing FREE



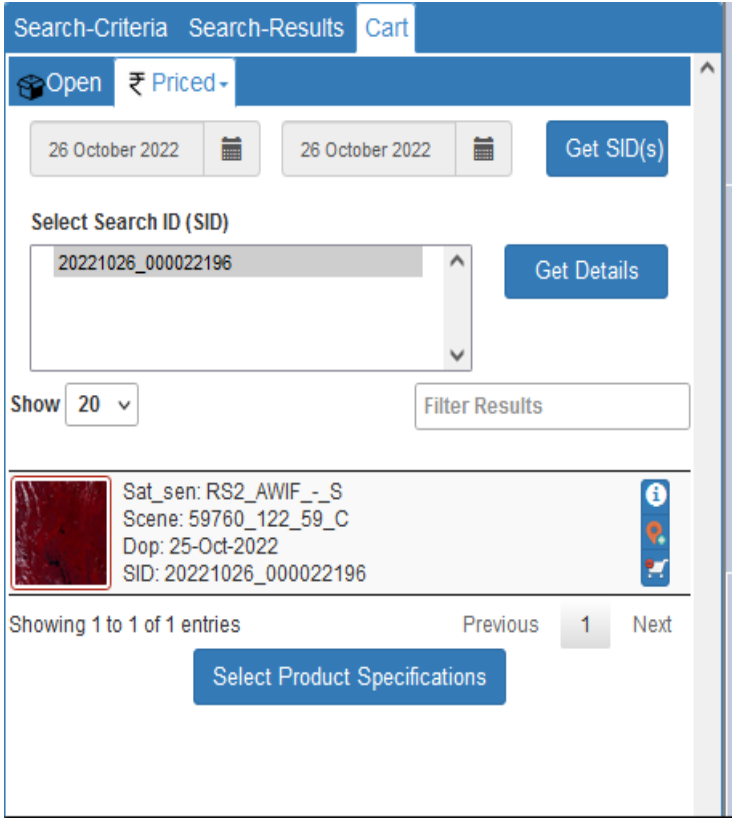
Search → Select → Cart → Generate PI → Generate Order

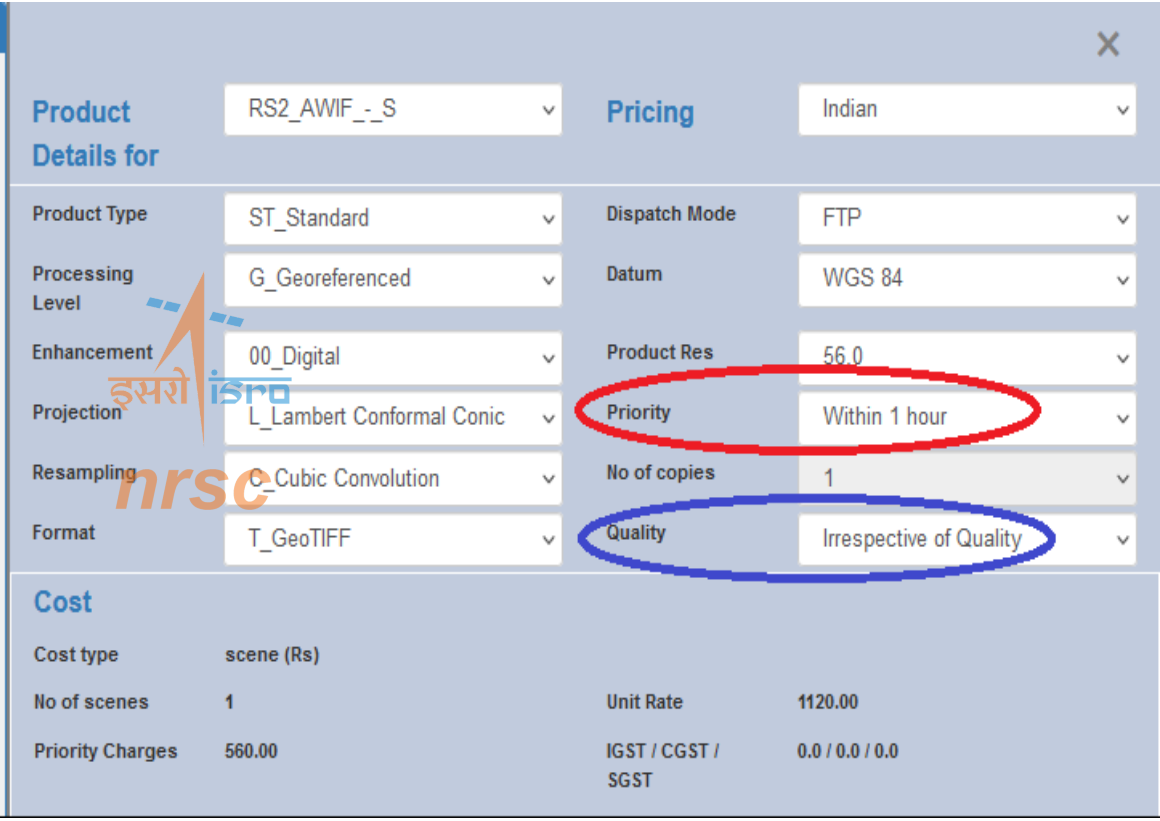
Priced Data



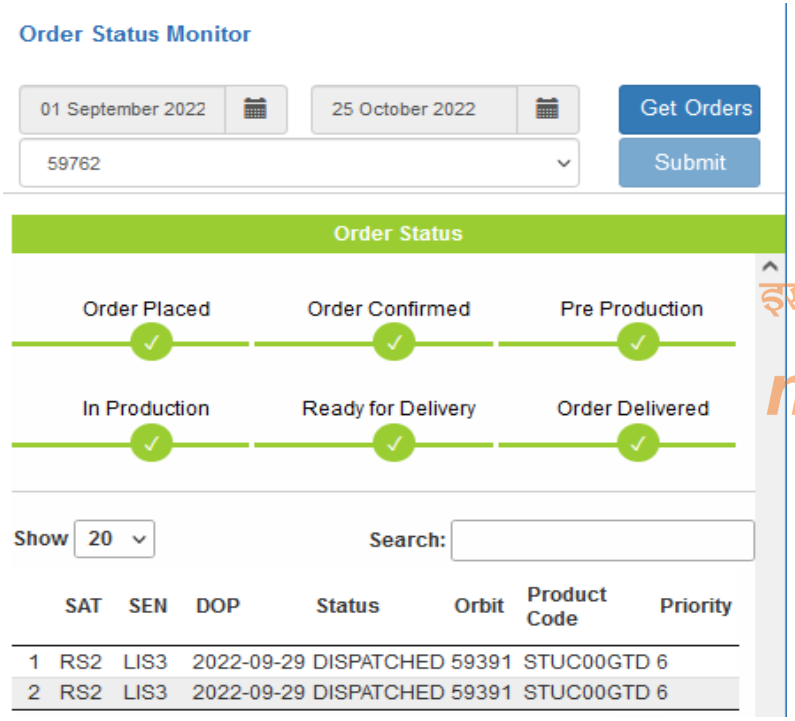
Search → Select → Cart → Generate PI → Generate Order → Monitor Order

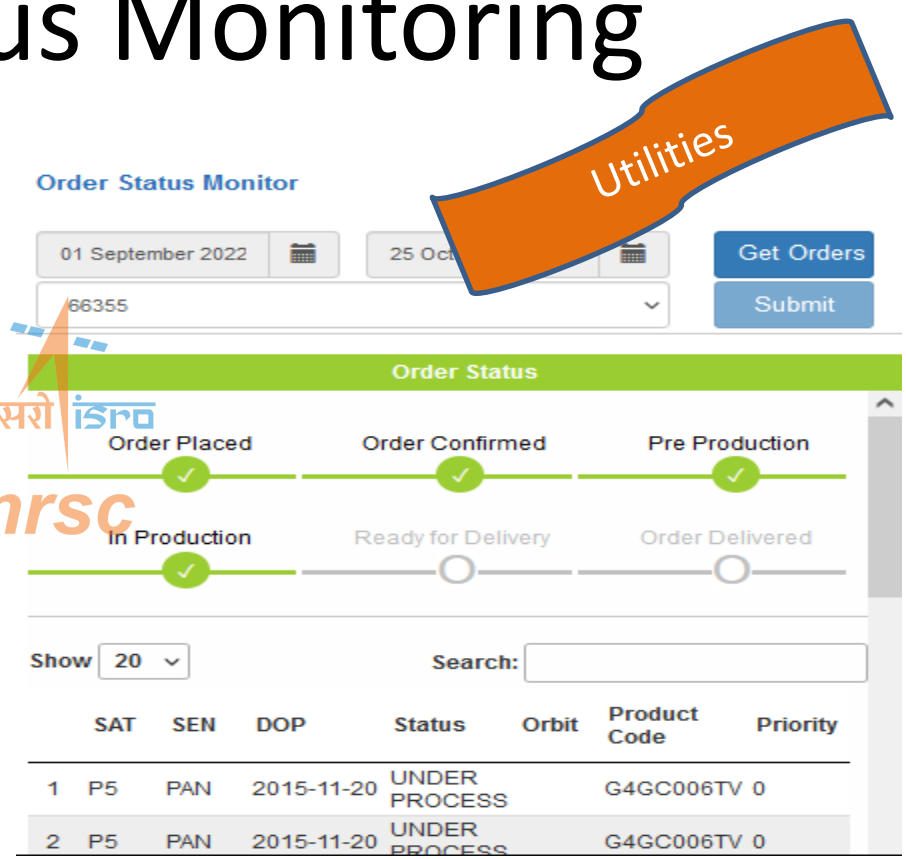
Priced Data: Within 1 hour





Order Status Monitoring





Subscription Requests

Subscription Service :

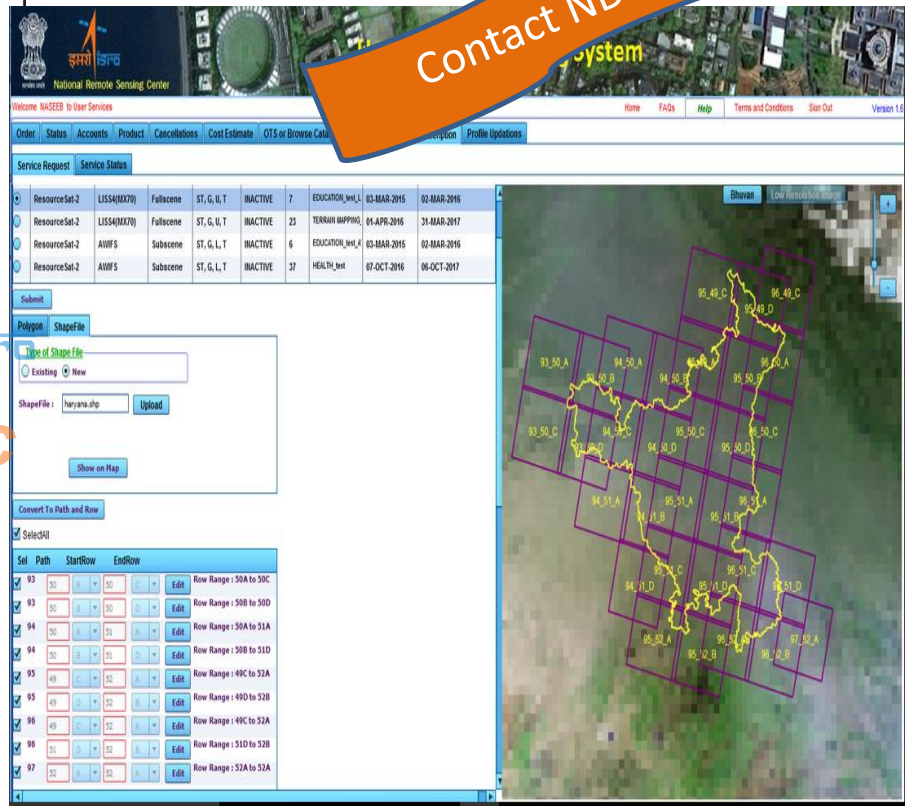
- India being a tropical country, at times 4-6 months in a year is cloudy over large areas. However, the data with partial cloud cover can be used for generation of time composites. Keeping this in view and to provide continuous (fresh acquisitions) and layered data, subscription service can be considered for current IRS satellites sensors which collects data with fixed path-row / systematic collection options i.e. Oceansat Ocean Color Monitor - Local Area Coverage, Resourcesat AWIFS / LISS-III / LISS-IV Cartosat-1and RISAT-1 data and similar succeeding missions with the following terms:

  - Provide necessary data, irrespective of cloud cover, through subscription service, by entering into a yearly agreement.

  - Basic unit of data request could be a region (covering in excess of 10,000sq.km)/State/Entire country. The price for such subscription may be

    - 25% of the user category price for OCM, AWIFS and LISS-III data
    - 50% of the user category price for LISS-IV, RISAT-1 and Carto-1 data.

  - Whenever NRSC is not able to supply the total data of basic unit of request as defined above, due to technical difficulties, NRSC may charge only for the data supplied on a pro-rata basis.



Dissemination Mechanisms

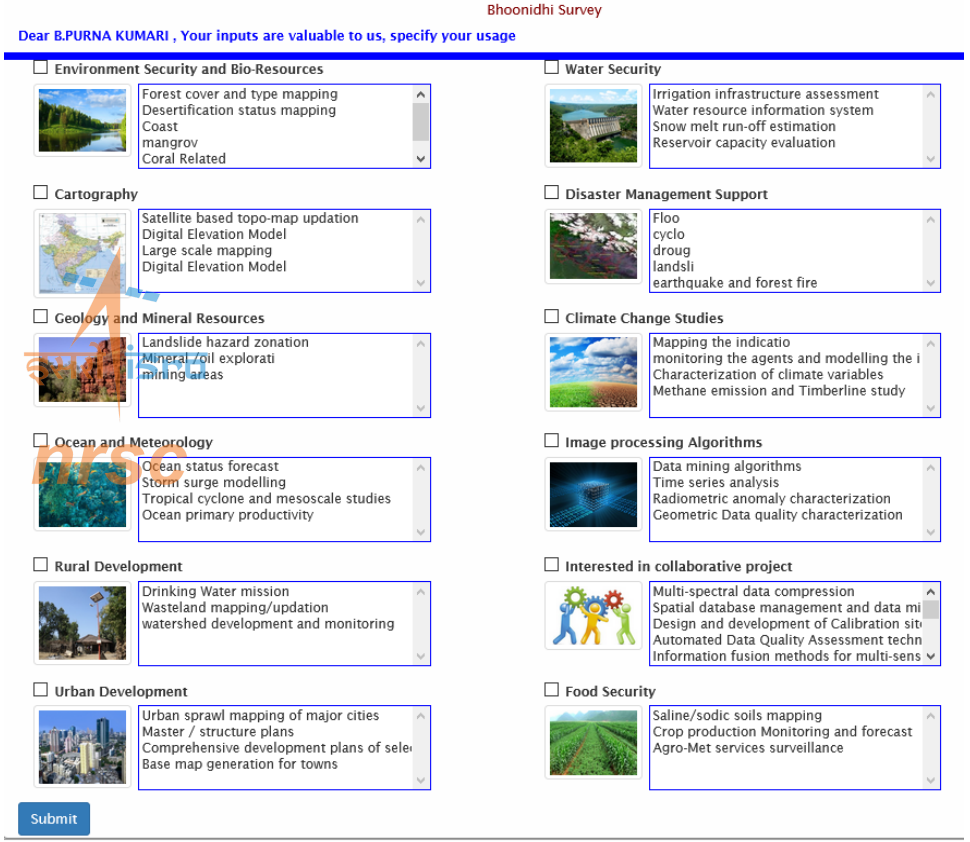
- Direct HTTPS based download through web portal for free data products
  - Instant Downloads for latest data
  - Delayed downloads for older data
- API based downloads for automation at user's end
- Media/FTP based dissemination for priced data products

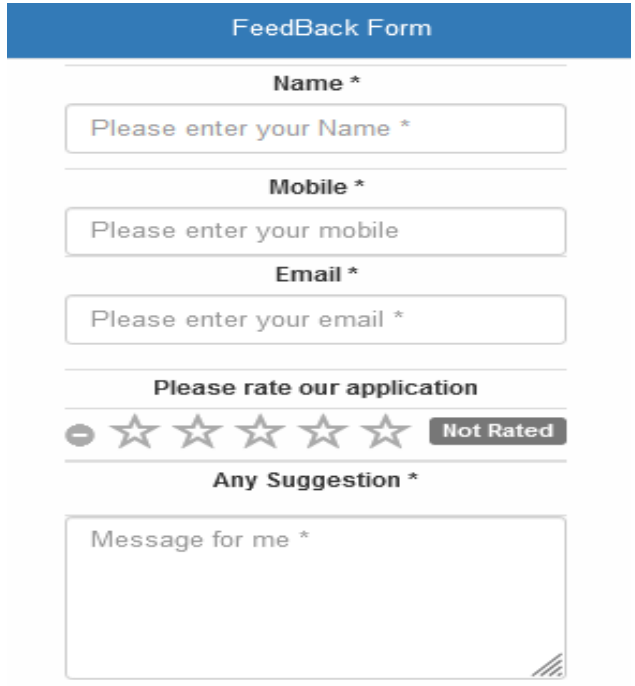
Help Documents and Videos

- Detailed documents and help videos available at:
  https://bhoonidhi.nrsc.gov.in/bhoonidhi/htmls/help.html

Users' Feedback

- Application Usability - Once for every session
- General Feedback on Performance, Navigation, User Friendliness, Suggestions, etc
- Write to us at bhoonidhi@nrsc.gov.in





Please provide your valuable feedback on

https://bhoonidhi.nrsc.gov.in

THANK YOU