

Practical Help Sessions with Usecases



Raghvendra Joshi , T.Jayasudha , D.SMITHA

Bhoonidhi Team

Agenda

- Usecase #1: Archives view
- Usecase #2: Search options
- Usecase#3: Stereo & merged Data Ordering
- UseCase#4: Order generation of your Proforma Invoice
- Usecase#5: Free Data Download
- Usecase#6 : VISTA

Usecase #1: Archives view :Data Availability

- Go to given url

<https://bhoonidhi.nrsc.gov.in/bhoonidhi/index.html>

- Select Archival tab from menu bar
- Click on satellite name from available list
- Choose sensor of selected satellite
- After satellite & sensor selection select Date Range
- Click on search symbol

Satellite selection

Home - NRSC DIKSTRA | Bhoonidhi Home | BHOONIDHI@NRSC/ISRO

https://bhoonidhi.nrsc.gov.in/bhoonidhi/index.html#


Bhoonidhi ISRO's EO Data HUB | **भूनिधि** इसरो डेटा डाटा हब | nrsc

Explore Archives PI Actions Utilities - Login

Satellite Data Availability

Select satellite from the list below:

Satellite	Availability
☑ Aqua (₹)	12/31/2003 - till date
☑ Carto Sat-1 (₹)	05/08/2005 - till date
☑ Carto Sat-2 (₹)	05/08/2007 - till date
☑ Carto Sat-2A (₹)	04/29/2008 - till date
☑ Carto Sat-2B (₹)	07/13/2010 - till date
☑ Carto Sat-2C (₹)	03/01/2016 - till date
☑ Carto Sat-2D (₹)	02/15/2017 - till date
☑ Carto Sat-2E (₹)	06/13/2016 - till date
☑ Carto Sat-2F (₹)	01/01/2017 - till date
☑ Carto Sat-3 (₹)	06/10/2020 - till date
☑ EOS-04 (₹)	02/23/2022 - till date
☑ IRS-1A (₹)	03/10/1988 - 06/01/1991
☑ IRS-1B (₹)	06/01/1991 - 09/01/1996
☑ IRS-1C (₹)	12/28/1995 - 09/21/2007
☑ IRS-1D (₹)	09/27/1997 - 01/20/2010
☑ Komp Sat-3 (₹)	01/01/2018 - till date
☑ Komp Sat-3A (₹)	01/01/2018 - till date
☑ LandSat-8	01/01/2017 - till date
☑ LandSat-9	04/01/2022 - till date
☑ NOAA-11 (₹)	08/25/1994 - 09/13/1994
☑ NOAA-12 (₹)	09/14/1994 - 11/04/1995
☑ NOAA-14 (₹)	04/03/1995 - 09/22/2010
☑ NOAA-16 (₹)	06/26/2001 - 07/15/2013
☑ NOAA-17 (₹)	09/20/2005 - 12/31/2010
☑ NOAA-18 (₹)	09/20/2005 - 10/09/2009
☑ NOAA-19 (₹)	04/28/2010 - 07/15/2013
☑ Novasat-1 (₹)	10/01/2019 - till date
☑ OceanSat-1 (₹)	05/26/1999 - 08/08/2010
☑ OceanSat-2 (₹)	05/08/2009 - till date
☑ RISAT-1 (₹)	09/08/2012 - 03/17/2017
☑ Resource Sat-1 (₹)	05/08/2003 - 10/05/2019
☑ Resource Sat-2 (₹)	09/01/2010 - till date
☑ Resource Sat-2A (₹)	12/18/2016 - till date
☑ SoatSat-1	01/01/2020 - 12/31/2021
☑ Sentinel-1A	10/01/2019 - till date

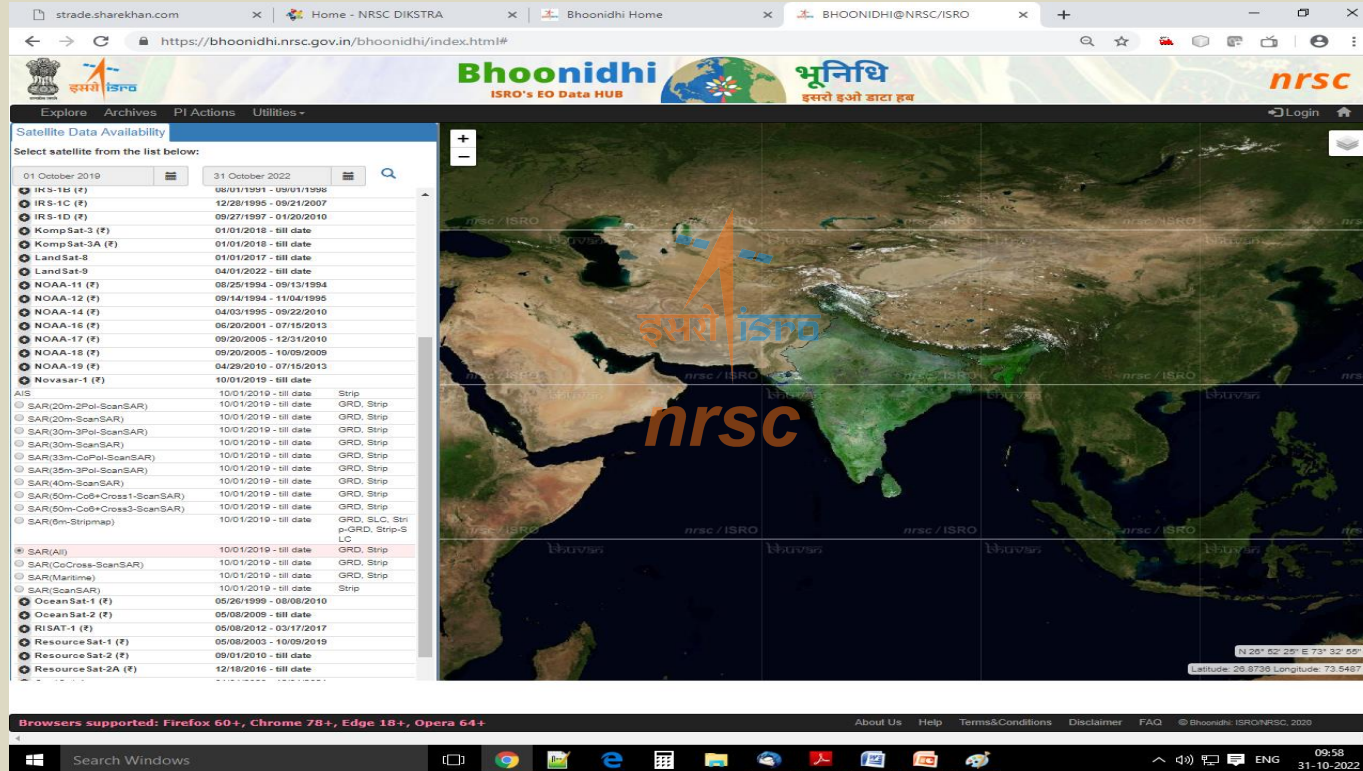


Latitude: 17.5972 Longitude: 44.5443

Browsers supported: Firefox 60+, Chrome 78+, Edge 18+, Opera 64+

About Us Help Terms&Conditions Disclaimer FAQ © Bhoonidhi: ISRONRSC, 2020

Sensor Selection

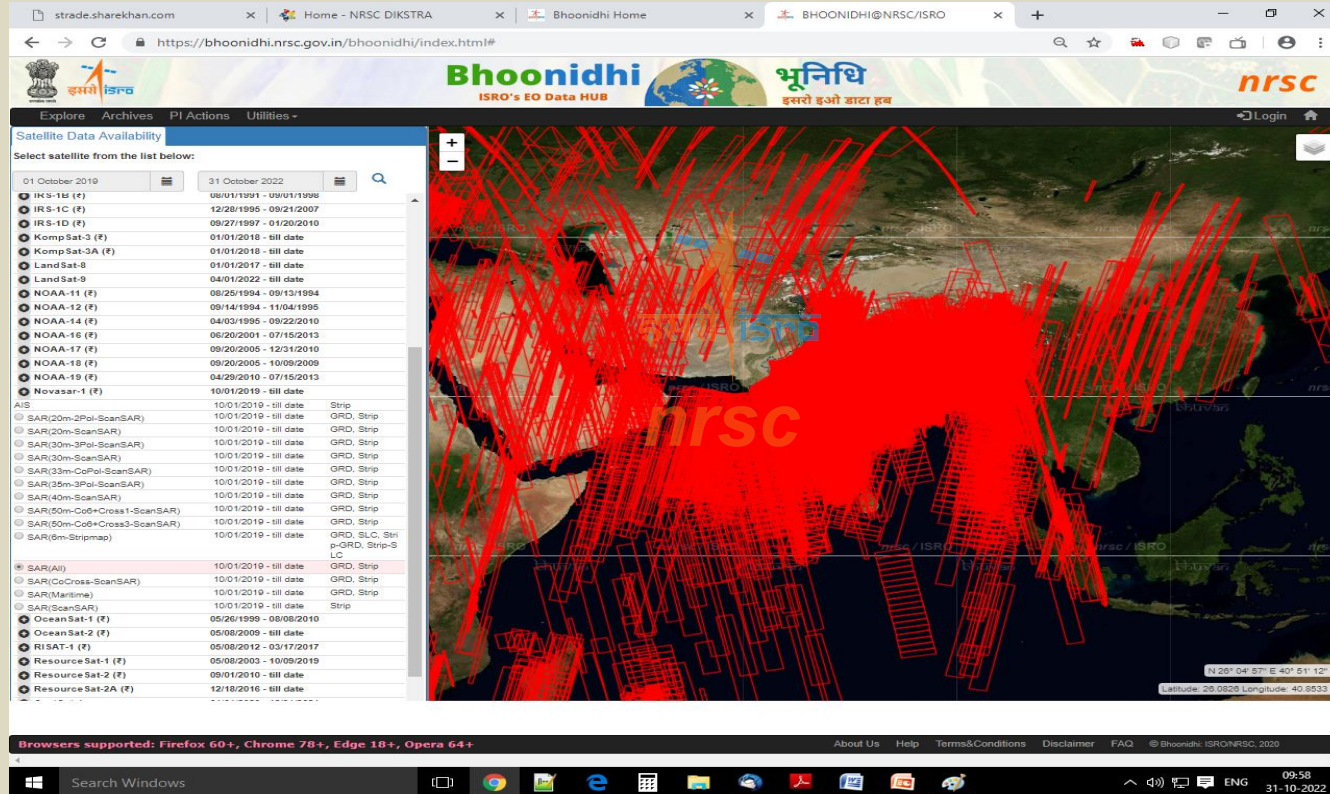


The screenshot shows the Bhoonidhi website interface. The top navigation bar includes 'Explore', 'Archives', 'PI Actions', and 'Utilities'. The main content area is titled 'Satellite Data Availability' and features a search bar and a list of satellites. A large satellite map of India is displayed on the right, with a red arrow pointing to a specific location. The map includes a coordinate box showing 'N 28° 52' 28" E 73° 32' 59"'. The bottom of the page displays browser support information and a footer with 'About Us', 'Help', 'Terms&Conditions', 'Disclaimer', and 'FAQ'.

Select satellite from the list below:

01 October 2019	31 October 2022
<input type="radio"/> IRS-1B (F)	08/01/1991 - 03/01/1996
<input type="radio"/> IRS-1C (F)	12/28/1995 - 09/21/2007
<input type="radio"/> IRS-1D (F)	09/27/1997 - 01/20/2010
<input type="radio"/> KompSat-3 (F)	01/01/2018 - bill date
<input type="radio"/> KompSat-3A (F)	01/01/2018 - bill date
<input type="radio"/> LandSat-8	01/01/2017 - bill date
<input type="radio"/> LandSat-9	04/01/2022 - bill date
<input type="radio"/> NOAA-11 (F)	08/25/1994 - 09/13/1994
<input type="radio"/> NOAA-12 (F)	09/14/1994 - 11/04/1995
<input type="radio"/> NOAA-14 (F)	04/03/1995 - 09/22/2010
<input type="radio"/> NOAA-16 (F)	06/20/2001 - 07/15/2013
<input type="radio"/> NOAA-17 (F)	09/29/2005 - 12/31/2010
<input type="radio"/> NOAA-18 (F)	09/29/2005 - 10/08/2009
<input type="radio"/> NOAA-19 (F)	04/29/2010 - 07/15/2013
<input type="radio"/> Novasar-1 (F)	10/01/2019 - bill date
AIS	
<input type="radio"/> SAR(20m-2Pol-ScanSAR)	10/01/2019 - bill date
<input type="radio"/> SAR(20m-ScanSAR)	10/01/2019 - bill date
<input type="radio"/> SAR(20m-3Pol-ScanSAR)	10/01/2019 - bill date
<input type="radio"/> SAR(20m-ScanSAR)	10/01/2019 - bill date
<input type="radio"/> SAR(30m-ScanSAR)	10/01/2019 - bill date
<input type="radio"/> SAR(33m-CoPol-ScanSAR)	10/01/2019 - bill date
<input type="radio"/> SAR(35m-3Pol-ScanSAR)	10/01/2019 - bill date
<input type="radio"/> SAR(40m-ScanSAR)	10/01/2019 - bill date
<input type="radio"/> SAR(50m-CoPol+Cross1-ScanSAR)	10/01/2019 - bill date
<input type="radio"/> SAR(50m-CoPol+Cross3-ScanSAR)	10/01/2019 - bill date
<input type="radio"/> SAR(6m-Stripmap)	10/01/2019 - bill date
<input type="radio"/> SAR(AI)	10/01/2019 - bill date
<input type="radio"/> SAR(CoCross-ScanSAR)	10/01/2019 - bill date
<input type="radio"/> SAR(Maritime)	10/01/2019 - bill date
<input type="radio"/> SAR(ScanSAR)	10/01/2019 - bill date
<input type="radio"/> OceanSat-1 (F)	05/26/1999 - 08/08/2010
<input type="radio"/> OceanSat-2 (F)	05/08/2009 - bill date
<input type="radio"/> RISAT-1 (F)	05/08/2012 - 03/17/2017
<input type="radio"/> ResourceSat-1 (F)	05/08/2003 - 10/08/2019
<input type="radio"/> ResourceSat-2 (F)	09/01/2010 - bill date
<input type="radio"/> ResourceSat-2A (F)	12/18/2016 - bill date

Date Range & search



The screenshot shows the Bhoonidhi website interface. The main header includes the ISRO logo, the text "Bhoonidhi ISRO's EO Data HUB", and "भूनिधि इसरो डीओ डाटा हब". Below the header is a navigation bar with "Explore", "Archives", "PI Actions", and "Utilities".

The "Satellite Data Availability" section is active, displaying a search results table. The table lists various satellite sensors and their operational periods. The search criteria are set to "01 October 2019" to "31 October 2022".

Satellite/Sensor	Date Range	Product Type
IRS-1B (F)	06/01/1991 - 09/01/1996	GRD, Strip
IRS-1C (F)	12/26/1996 - 09/21/2007	GRD, Strip
IRS-1D (F)	09/27/1997 - 01/20/2010	GRD, Strip
Komp Sat-3 (F)	01/01/2018 - till date	GRD, Strip
Komp Sat-3A (F)	01/01/2018 - till date	GRD, Strip
Land Sat-8	01/01/2017 - till date	GRD, Strip
Land Sat-9	04/01/2022 - till date	GRD, Strip
NOAA-11 (F)	08/26/1994 - 09/13/1994	GRD, Strip
NOAA-12 (F)	09/14/1994 - 11/04/1995	GRD, Strip
NOAA-14 (F)	04/03/1996 - 09/22/2010	GRD, Strip
NOAA-16 (F)	06/26/2001 - 07/15/2013	GRD, Strip
NOAA-17 (F)	09/20/2005 - 12/31/2010	GRD, Strip
NOAA-18 (F)	09/20/2005 - 10/09/2009	GRD, Strip
NOAA-19 (F)	04/29/2010 - 07/15/2013	GRD, Strip
Novasar-1 (F)	10/01/2019 - till date	GRD, Strip
SAR(20m-2Pol-ScanSAR)	10/01/2019 - till date	GRD, Strip
SAR(20m-ScanSAR)	10/01/2019 - till date	GRD, Strip
SAR(30m-3Pol-ScanSAR)	10/01/2019 - till date	GRD, Strip
SAR(30m-ScanSAR)	10/01/2019 - till date	GRD, Strip
SAR(30m-CoPol-ScanSAR)	10/01/2019 - till date	GRD, Strip
SAR(30m-3Pol-ScanSAR)	10/01/2019 - till date	GRD, Strip
SAR(40m-ScanSAR)	10/01/2019 - till date	GRD, Strip
SAR(50m-CoB+Cross1-ScanSAR)	10/01/2019 - till date	GRD, Strip
SAR(50m-CoB+Cross3-ScanSAR)	10/01/2019 - till date	GRD, Strip
SAR(6m-Stripmap)	10/01/2019 - till date	GRD, SL_C, Strip-GRD, Strip-3 LC
SAR(AI)	10/01/2019 - till date	GRD, Strip
SAR(CoCross-ScanSAR)	10/01/2019 - till date	GRD, Strip
SAR(Maritime)	10/01/2019 - till date	GRD, Strip
SAR(ScanSAR)	10/01/2019 - till date	Strip
Ocean Sat-1 (F)	05/26/1999 - 08/08/2010	GRD, Strip
Ocean Sat-2 (F)	05/08/2009 - till date	GRD, Strip
RISAT-1 (F)	05/08/2012 - 03/17/2017	GRD, Strip
Resource Sat-1 (F)	05/08/2003 - 10/09/2019	GRD, Strip
Resource Sat-2 (F)	05/01/2010 - till date	GRD, Strip
Resource Sat-2A (F)	12/16/2016 - till date	GRD, Strip

The right side of the page features a satellite map of India with numerous red rectangular overlays indicating search results or data footprints. The map includes a coordinate display at the bottom right: "Latitude: 20.0328 Longitude: 40.8933".

At the bottom of the page, there is a footer with "Browsers supported: Firefox 60+, Chrome 78+, Edge 18+, Opera 64+", navigation links ("About Us", "Help", "Terms&Conditions", "Disclaimer", "FAQ"), and copyright information "© Bhoonidhi: ISRO/NRSC, 2020".

Exercise

- Satellite : Cartosat-2E, startDate :01-Oct-2022 , endDate:01-Nov-2022
- Satellite : Resourcesat-2A , startDate :01-Sept-2022, enddate:01-Nov-2022



Usecase #2 : Search options

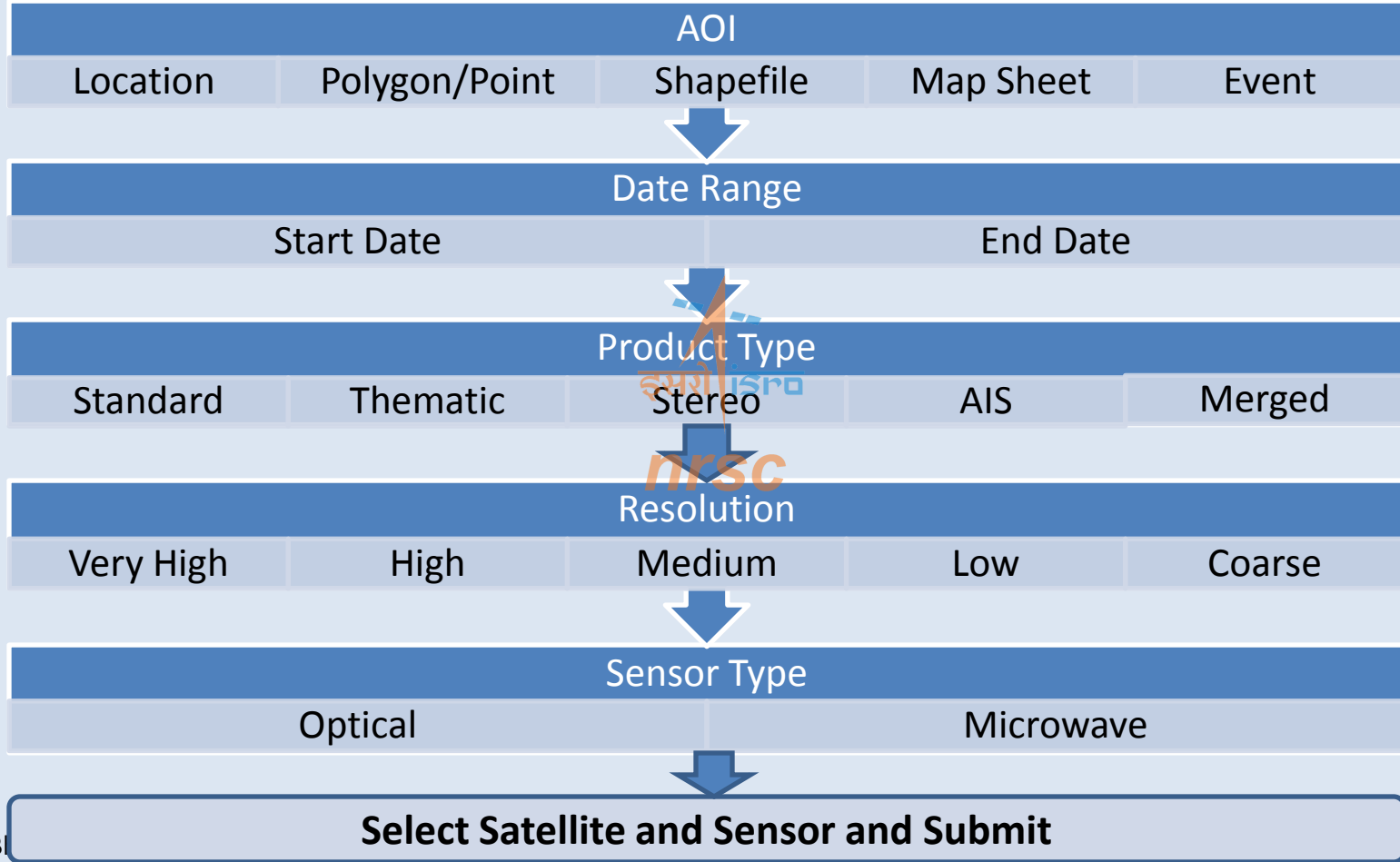
- AOI based Search
- Date based Search

Note:

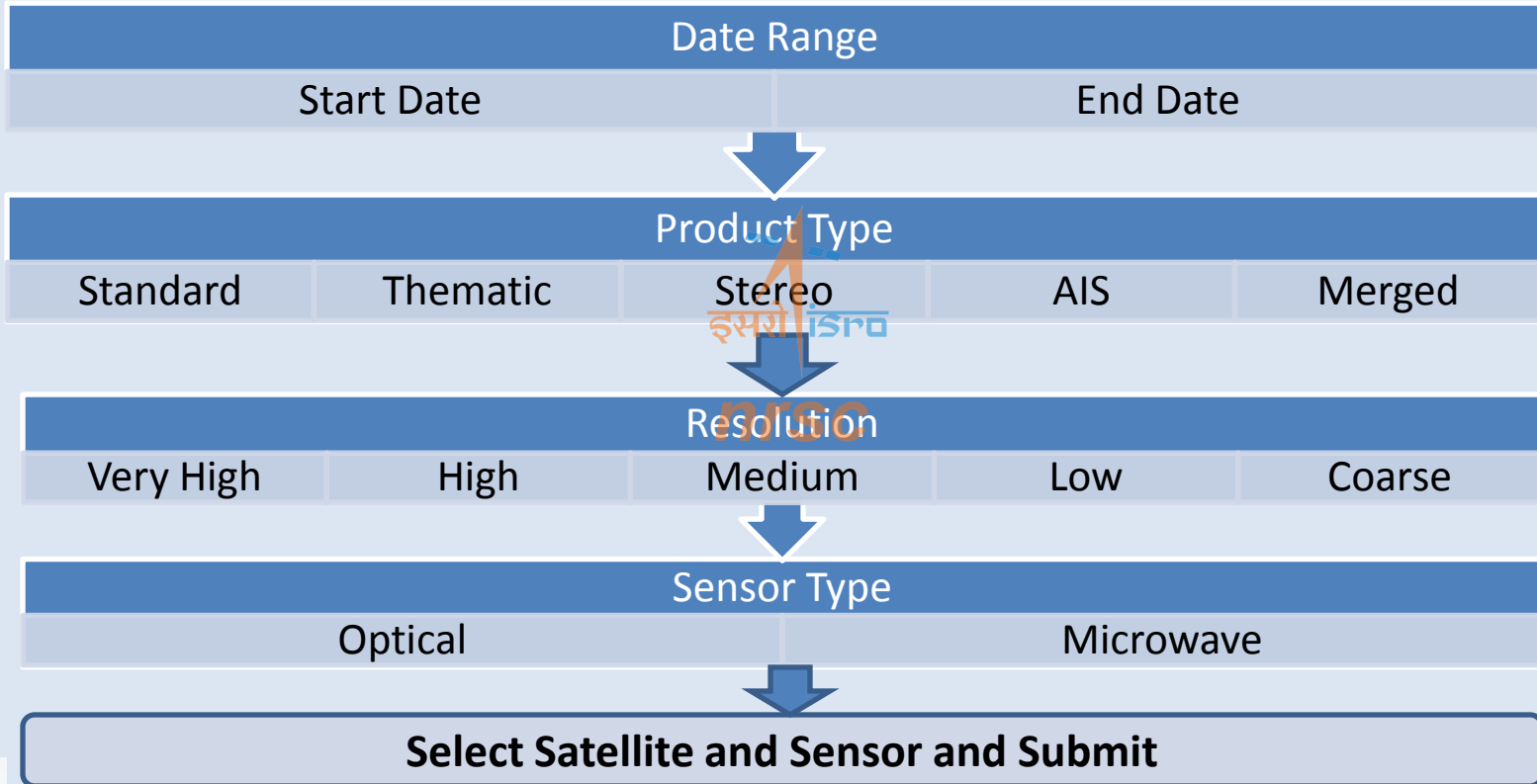
- User can browse the data without login
- User should have login id for downloads
- To order priced data one should have an account with funds



Search Option – AOI Based



Search Options – Date Based



Search/Browse Steps

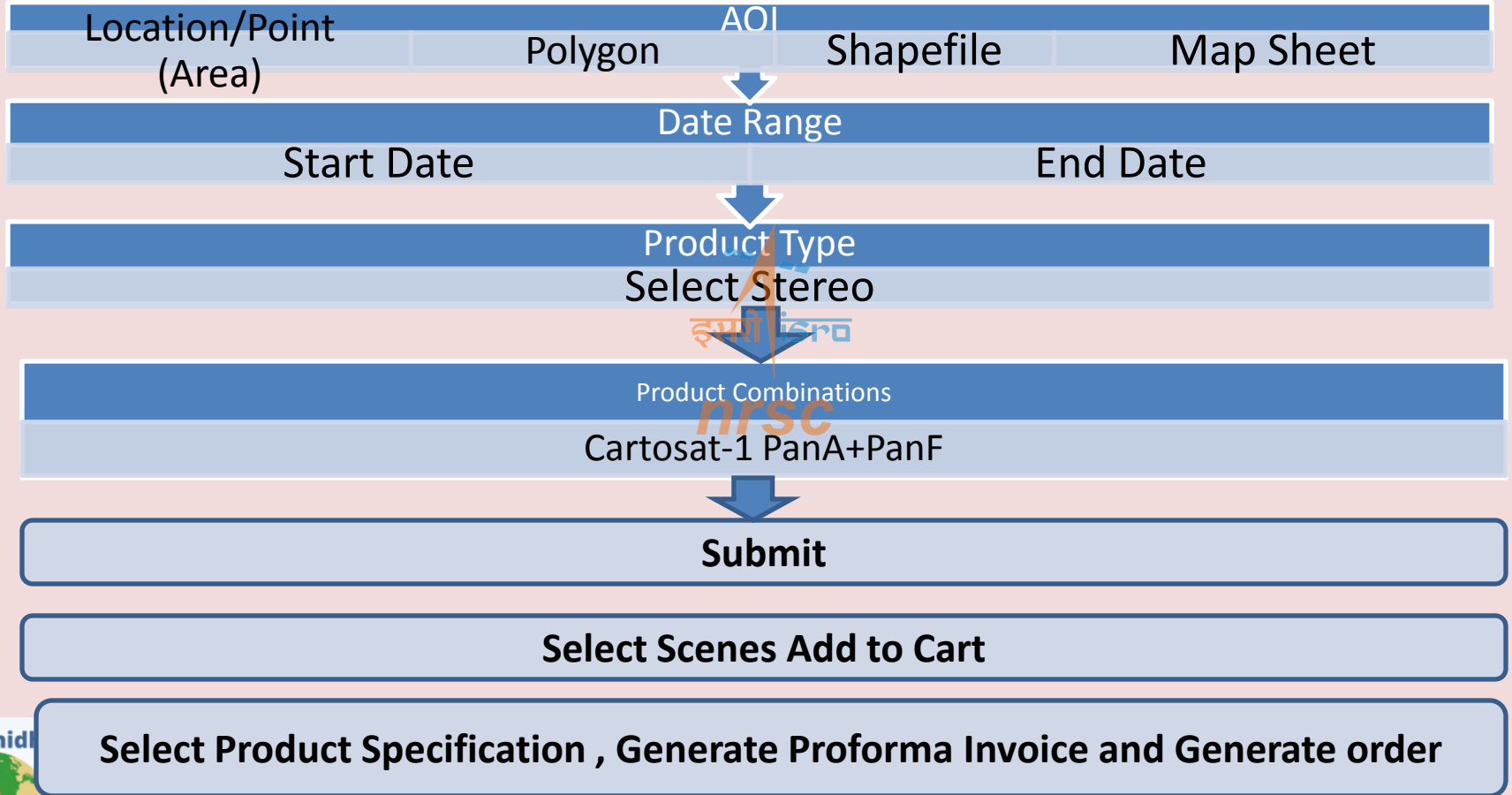
AOI Location Example

1. Select “Explore” -> “Search Criteria”
2. Select the AOI type: Location
 - Place name or ([Hyderabad](#))
 - (Latitude, Longitude), Area (km) (Decimal / Deg-min-Sec)
3. Select date range ([01/JAN/2022 – 01/MAR/2022](#))
4. Select product type ([Standard](#))
5. Select Resolution ([Medium](#))
6. Sensor type ([optical](#)/microwave)
7. Select Satellite and sensor ([priced](#)/open) [RS2-LISS3](#)
8. Submit
9. Select scenes under “Search Results”
10. Add to cart (*Login is required*)
11. Scenes will be added to priced/open cart



10. Select “Cart”
11. If open cart, products can be directly downloaded
12. If priced, Select Product Specification
13. Add product Specification
14. Generate Proforma Invoice
15. Go to PI Actions
16. Select the proforma invoice generated
17. Specify the shipping address
18. Generate Order

Usecase#3: Stereo Data Ordering



Stereo Data Ordering Steps

AOI Location Example

- Choose the AOI
 - Shape File
 - » Enter either [Existing/](#) new shape file ([TELANGANA_INDIA.zip](#))
- Enter date range ([01/SEP/2006 – 30/NOV/2006](#))
- Enter product type [Stereo](#)
- Cartosat-1 ([PANA+PANF](#))
- Submit
- Select scenes
- Add to cart (Login is required)
- Scenes will be added to priced cart
- Select Product Specification
- Add product Specification
- Generate Proforma Invoice
- Generate Order



Merged data Ordering

1. Select **Hyderabad** location.
2. Select the date range (**Start date: 01-Jan-2018 End date: 07-Feb-2022**).
3. Select **Merged** option from the Product combo box.
4. Select the Merged combinations from the list.
(Eg. **Cartosat-2C PAN SPOT + Cartosat-2C MX SPOT**)
5. Click **Submit**.
6. On the left side, the high resolution panchromatic scenes are displayed with a scene Id and date of pass.
7. For each PAN scene there is a Fetch MX button, which shows the list of multispectral scenes with the overlap percentage with the PAN scene.
8. Click Fetch MX button corresponding to desired PAN scene. Check the overlay of scenes on map to the right side.
9. After finalising the MX scene click the check box and click Add to Cart button.
10. Repeat the procedure for other PAN/MX scenes and add to cart the required scenes.

Merged data

- Click the **Cart** tab on the menu. Under cart, click the **Priced-Multi Scene**.
- The list of scenes (PAN &MX) added to cart are listed for the SID.
- Click the button **Select Product Specification**. The product specification is displayed on to the right side.
- Click the button **Add Product Specification**.
- Use User Ref text box to enter any text for your reference and reference date
- Click **Generate Proforma Invoice** button.

UseCase# 4: Order generation of your Proforma Invoice

- Make a note of the **Proforma Invoice** (PI) number generated.
- From the menu select the **PI Actions** tab. The PI numbers are listed as per the latest date.
- For each PI, there is an option to **View details** of the PI and an option to view the **Footprints** of the selected scenes on the map.
- Select the PI and click Save **PI PDF button** to download a copy for yourself.
- To generate order for this PI, please contact NDC (data@nrsc.gov.in).



Usecase#5: Free Data Download

Data into Cart

- Select AOI if area is defined or skip this and deselect AOI selection.
- Enter date range(01/JAN/202-01/MAR-2021)
- Enter product type (Standard)
- Select Resolution, sensor type (Medium,Microwave)
- Select Satellite and sensor (Sentinel-1A)
- Select open data only & submit
- Select scenes
- Add to cart (Login is required)
- Scenes will be added to open cart



Data Download

- If product available  download symbol will be green and product can be downloaded directly by clicking on symbol
- If product is not available readily download symbol will be red and later it will be available. After product available, User will be intimated  through Email and download symbol will be green

Usecase#6 : VISTA

- <https://bhoonidhi.nrsc.gov.in/vista/index.html>
- See in Full resolution :
 - 01—Nov-2022, EOS-04, MRS
 - Which cities are covered in western pass OF India ?
- Swipe Option : Select a point
 - Choose Left Image : Resourcesat-2 , AWIFS , Date:
 - Choose Right Image : Resourcesat-2 , AWIFS , Date:

Thank You
इसरो isro
nrsc