

# Practical Help Sessions with Usecases

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# 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

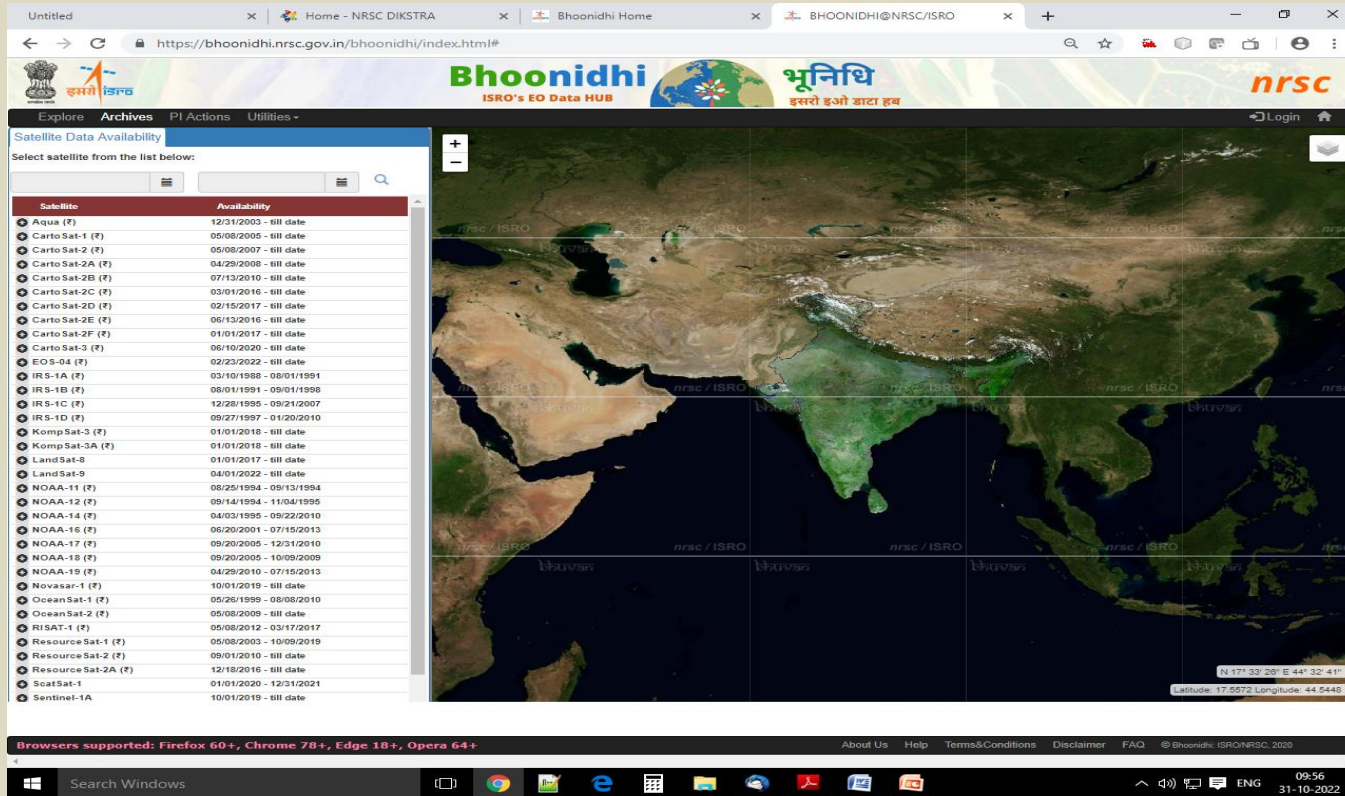
# Usecase #1: Archives view :Data Availability

- 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 -

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 - 08/01/1991
⊕ IRS-1B (₹)	08/01/1991 - 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	01/01/2013 - 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
⊕ Soat Sat-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+

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Search Windows

09:56  
31-10-2022

# Sensor Selection

The screenshot shows the Bhoonidhi website interface. On the left, there is a 'Satellite Data Availability' section with a search bar and a list of satellites. The main area displays a satellite image of India and surrounding regions, overlaid with a grid. The bottom of the browser window shows the Windows taskbar with the date 31-10-2022 and time 09:58.

**Satellite Data Availability**

Select satellite from the list below:

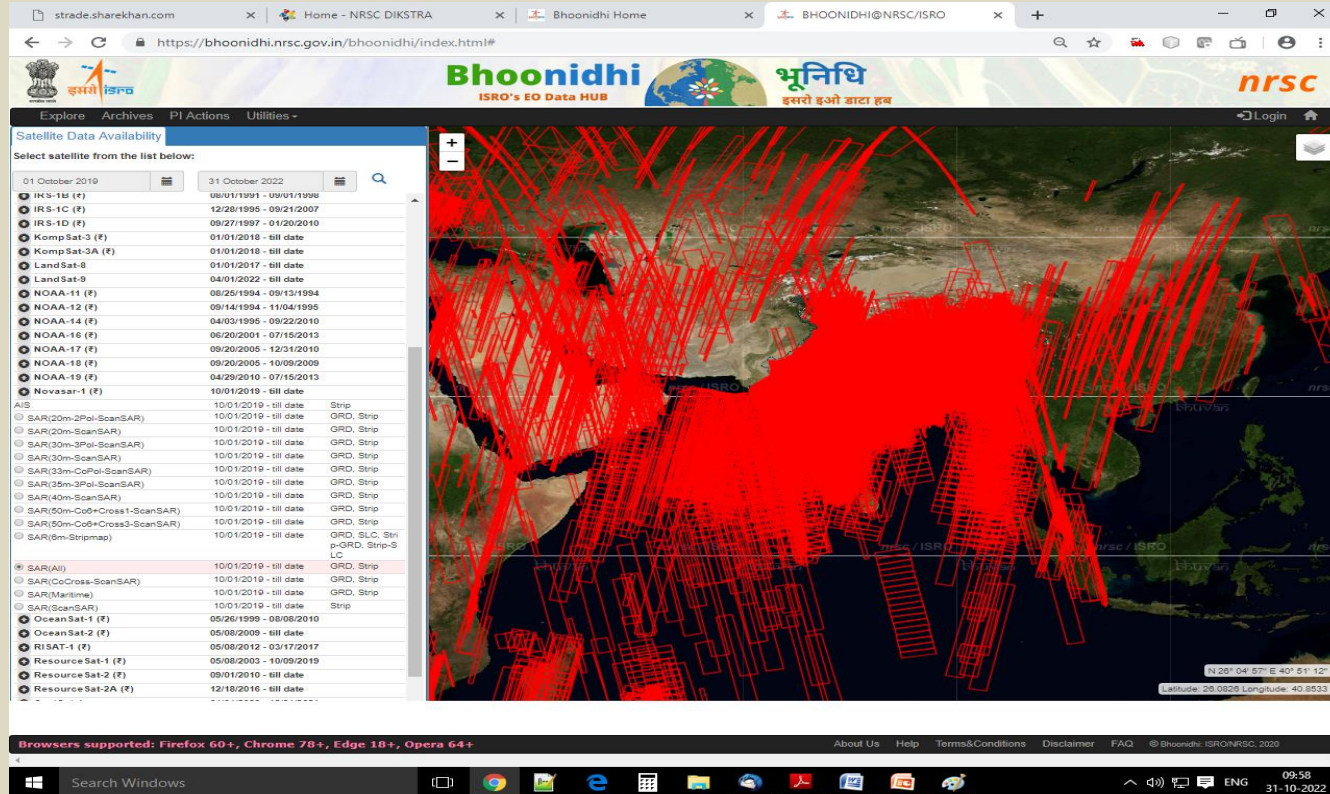
01 October 2019	31 October 2022
<input type="radio"/> IK3-1B (F)	06/01/1991 - 03/01/1996
<input type="radio"/> IRS-1C (F)	12/28/1995 - 09/21/2007
<input type="radio"/> IRS-1D (F)	09/27/1997 - 01/20/2010
<input type="radio"/> KompSat-3 (F)	01/01/2018 - bill date
<input type="radio"/> KompSat-3A (F)	01/01/2018 - 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
<b>AIS</b>	
<input type="radio"/> SAR(20m-2Pol-ScanSAR)	10/01/2010 - bill date Strip
<input type="radio"/> SAR(20m-ScanSAR)	10/01/2010 - bill date GRD, Strip
<input type="radio"/> SAR(20m-3Pol-ScanSAR)	10/01/2010 - bill date GRD, Strip
<input type="radio"/> SAR(30m-ScanSAR)	10/01/2010 - bill date GRD, Strip
<input type="radio"/> SAR(30m-CoPol-ScanSAR)	10/01/2010 - bill date GRD, Strip
<input type="radio"/> SAR(35m-3Pol-ScanSAR)	10/01/2010 - bill date GRD, Strip
<input type="radio"/> SAR(40m-ScanSAR)	10/01/2010 - bill date GRD, Strip
<input type="radio"/> SAR(50m-CoB+Cross1-ScanSAR)	10/01/2010 - bill date GRD, Strip
<input type="radio"/> SAR(50m-CoB+Cross3-ScanSAR)	10/01/2010 - bill date GRD, Strip
<input type="radio"/> SAR(6m-Stripmap)	10/01/2010 - bill date GRD, SLC, Strip-GRD, Strip-SLC
<b>SAR(AI)</b>	
<input type="radio"/> SAR(CoCross-ScanSAR)	10/01/2010 - bill date GRD, Strip
<input type="radio"/> SAR(Maritime)	10/01/2010 - bill date GRD, Strip
<input type="radio"/> SAR(ScanSAR)	10/01/2010 - bill date Strip
<b>OceanSat</b>	
<input type="radio"/> OceanSat-1 (F)	05/26/1999 - 08/08/2010
<input type="radio"/> OceanSat-2 (F)	05/08/2009 - bill date
<b>RISAT</b>	
<input type="radio"/> RISAT-1 (F)	05/08/2012 - 03/17/2017
<b>ResourceSat</b>	
<input type="radio"/> ResourceSat-1 (F)	05/08/2003 - 10/09/2019
<input type="radio"/> ResourceSat-2 (F)	09/01/2010 - bill date
<input type="radio"/> ResourceSat-2A (F)	12/18/2016 - bill date

**Browser Information:** Firefox 60+, Chrome 78+, Edge 18+, Opera 64+

**Footer:** About Us, Help, Terms&Conditions, Disclaimer, FAQ, © Bhoonidhi, ISRO/nrsc, 2020

**Taskbar:** Search Windows, 09:58, 31-10-2022

# 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 the Hindi text "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 interface. The left sidebar shows a list of satellites with their launch and end dates. The main area shows a satellite map of India with numerous red rectangular search boxes overlaid on the map, indicating search results for various dates and locations.

Select satellite from the list below:	Start Date	End Date	Product
01 October 2019	31 October 2022		
INS-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
LandSat-8	01/01/2017 - till date		GRD, Strip
LandSat-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)	06/20/2001 - 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		GRD, Strip
OceanSat-1 (F)	05/26/1999 - 08/08/2010		GRD, Strip
OceanSat-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

At the bottom of the page, there is a footer with "Browsers supported: Firefox 60+, Chrome 78+, Edge 18+, Opera 64+", navigation links, and a copyright notice "© 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

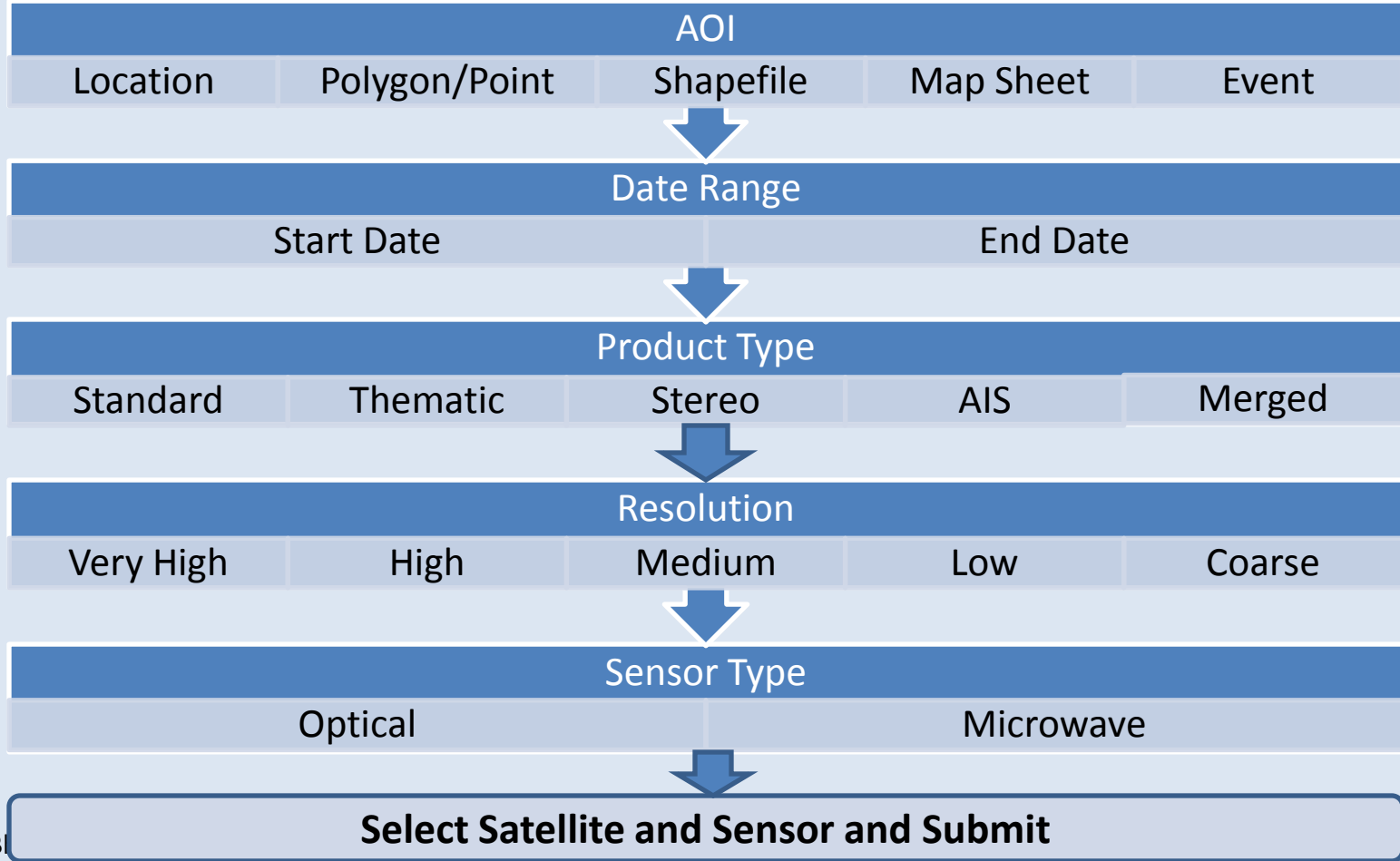
- AOI based Search
- Date based Search

## Note:

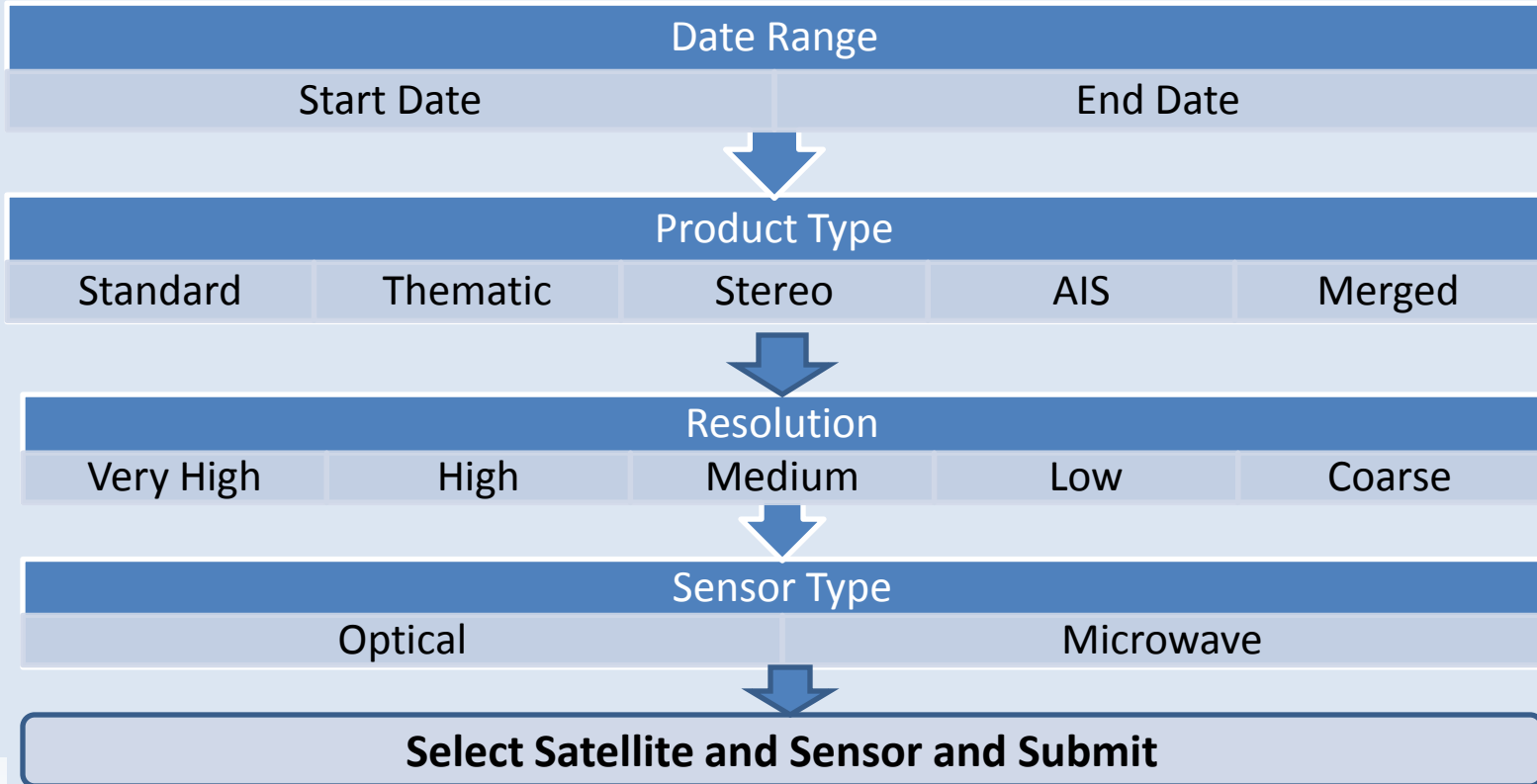
- User can browse the data without login
- User should have login id for downloads
- To order priced data one should have an account with funds



# Search Option – AOI Based



# Search Options – Date Based



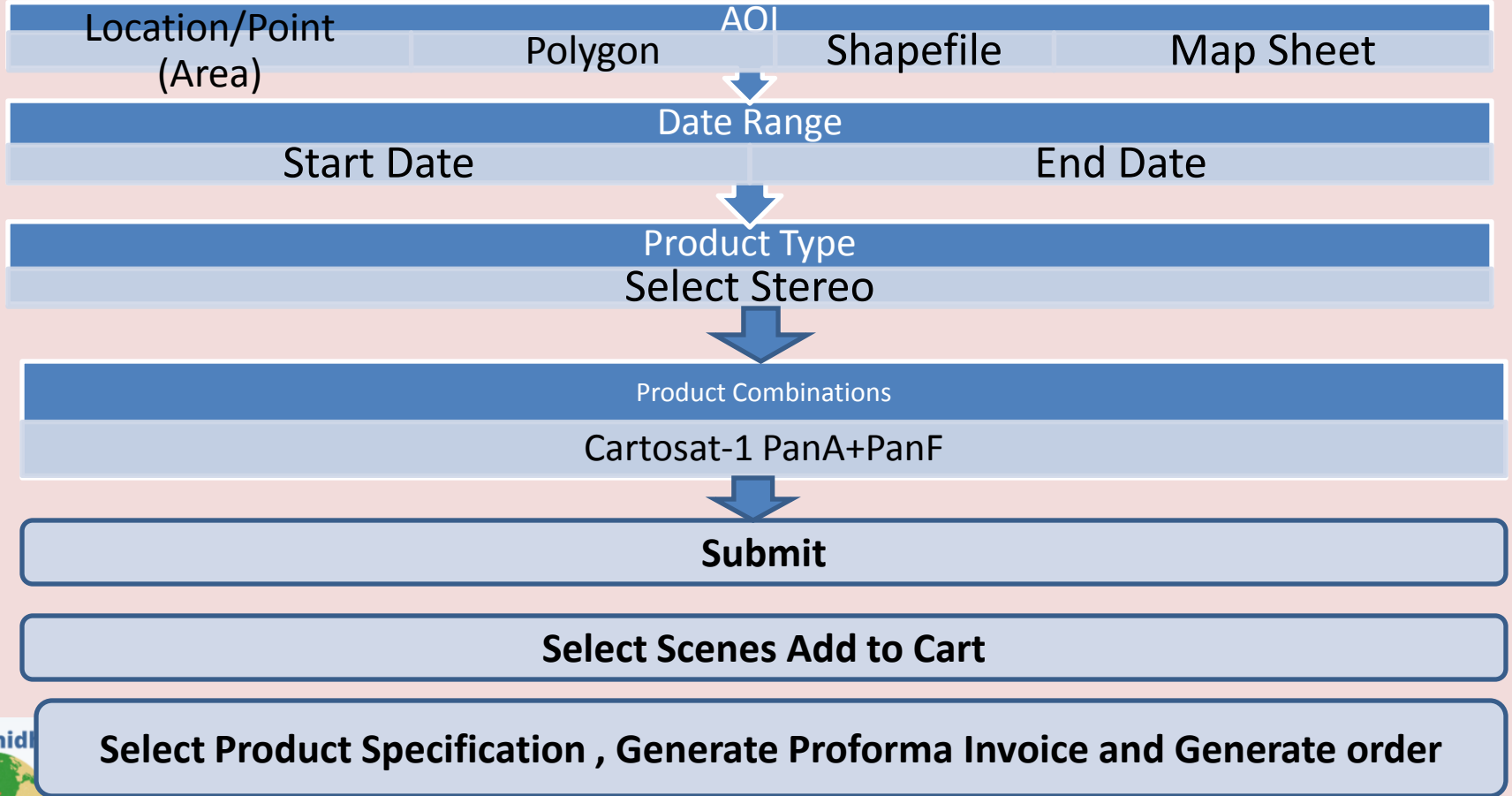
# Search/Browse Steps

## 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](mailto: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