Accessing Remote Sensing Data using Live Access Server

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ITCOOcean, 30th July 2021

Live Access Server

- The Live Access Server (LAS) is a highly configurable web server designed to provide flexible access to geo-referenced scientific data. It can present distributed data sets as a unified virtual data base through the use of DODS networking.
- Ferret is the default visualization application used by LAS, though other applications (Matlab, IDL, GrADS, …) can also be used.
- Limitation: It is capable of only accessing data in NetCDF format.

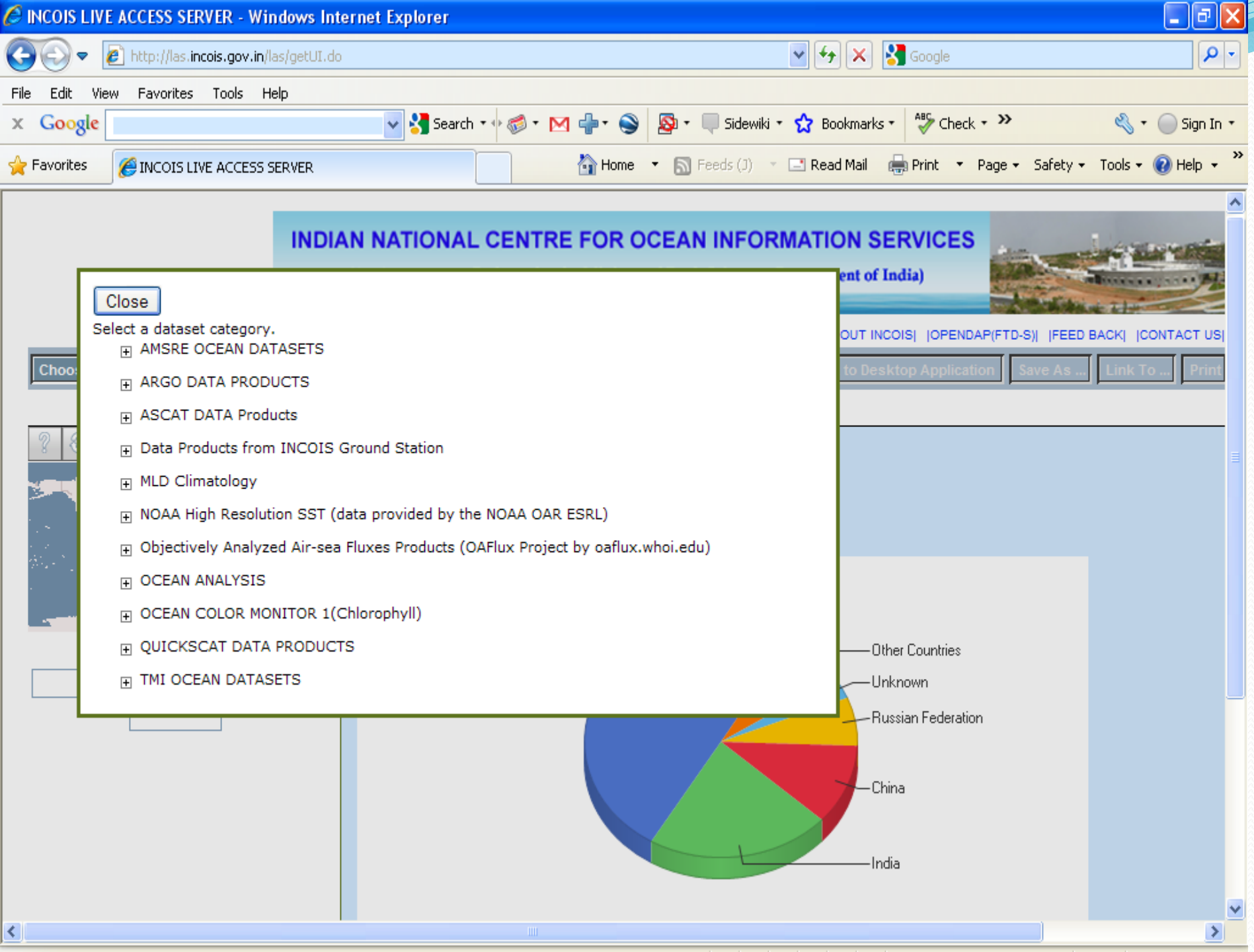
LAS enables the web user to:

- visualize data with on-the-fly graphics.
- request custom subsets of variables in a choice of file formats.
- access background reference material about the data (metadata).
- compare (difference) variables from distributed locations.

LAS enables the data provider to:

- **unify access to multiple types of data in a single interface**
- **create thematic data servers from distributed data sources**
- **offer derived products on the fly**
- **remedy metadata inadequacies (poorly self-describing data)**
- **offer unique products (e.g. visualization styles specialized for the data)**

Over view of LAS


INCOIS LIVE ACCESS SERVER - Windows Internet Explorer
http://las.incois.gov.in/las/getUI.do
File Edit View Favorites Tools Help
Favorites
INCOIS LIVE ACCESS SERVER
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OUT INCOIS| |OPENDAP(FTD-S)| |FEED BACK| |CONTACT US|
Close
Select a dataset category.
AMSRE OCEAN DATASETS
ARGO DATA PRODUCTS
ASCAT DATA Products
Data Products from INCOIS Ground Station
MLD Climatology
NOAA High Resolution SST (data provided by the NOAA OAR ESRL)
Objectively Analyzed Air-sea Fluxes Products (OAFlux Project by oaflux.whoi.edu)
OCEAN ANALYSIS
OCEAN COLOR MONITOR 1(Chlorophyll)
QUICKSCAT DATA PRODUCTS
TMI OCEAN DATASETS
Other Countries
Unknown
Russian Federation
China
India

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Google Search Sidewiki Bookmarks Check Sign In

Favorites INCOIS LIVE ACCESS SERVER Home Feeds (J) Read Mail Print Page Safety Tools Help

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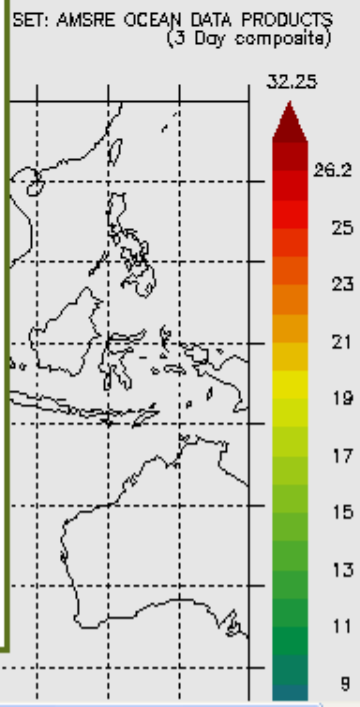
Choos to Desktop Application Save As ... Link To ... Print

Close

Select a dataset category.

- AMSRE OCEAN DATASETS
  - 3Day Composite
    - Cloud Liquid Water
    - Rain Rate
    - Sea Surface Temperature
    - Surface Wind Speed
    - Atmospheric Water Vapour
  - Monthly Composite
- ARGO DATA PRODUCTS
- ASCAT DATA Products
- Data Products from INCOIS Ground Station
- MLD Climatology
- NOAA High Resolution SST (data provided by the NOAA OAR ESRL)
- Objectively Analyzed Air-sea Fluxes Products (OAFlux Project by oaflux.whoi.edu)
- OCEAN ANALYSIS
- OCEAN COLOR MONITOR 1(Chlorophyll)
- QUICKSCAT DATA PRODUCTS
- TMI OCEAN DATASETS



20 E

MAPS

Lat

HOVM

Lon

Lat

LINE

Tim

Longitude

INCOIS LIVE ACCESS SERVER - Windows Internet Explorer

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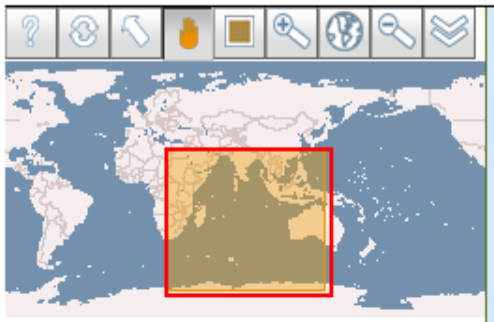


29.91 N

20 E | 140 E

70.06 S

MAPS

- (•) Latitude-Longitude

HOVMOLLER PLOTS

- ( ) Longitude-Time
- ( ) Latitude-Time

LINE PLOTS

- ( ) Time Series
- ( ) Longitude
- ( ) Latitude

SCATTER PLOTS

- ( ) Property-Property

Date:

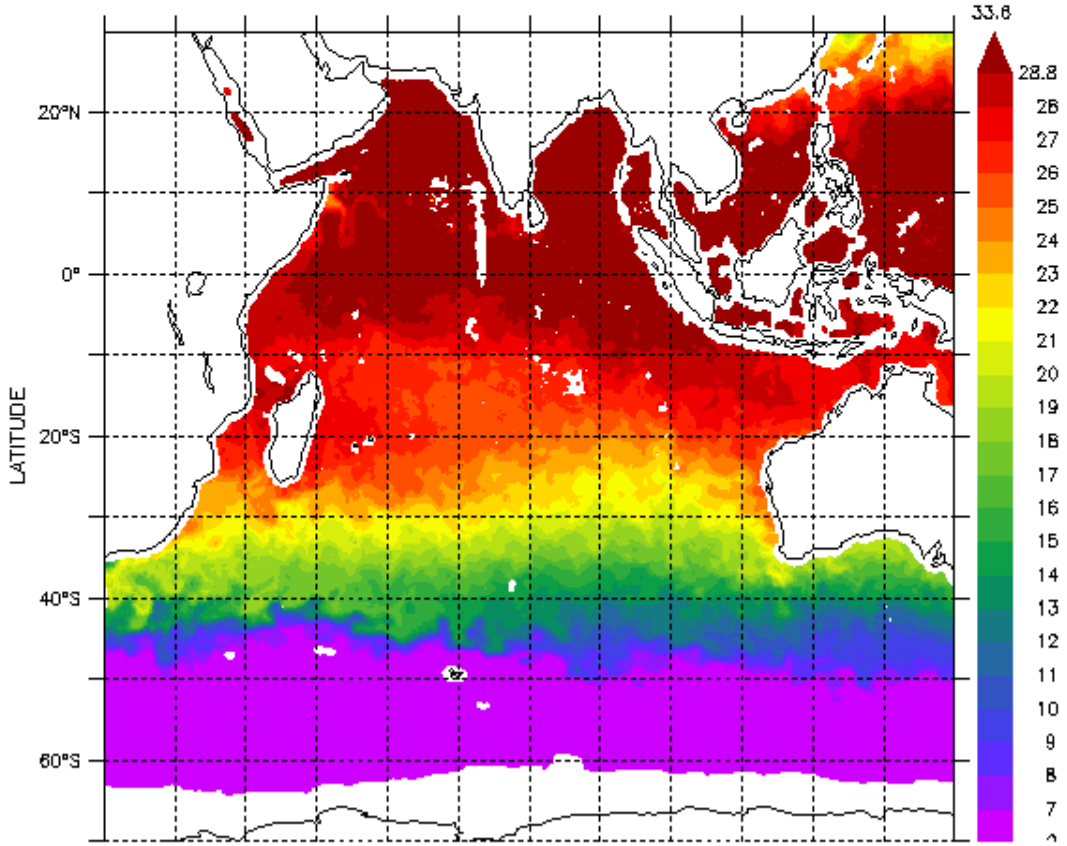
Jun | 01 | 2011

Apply analysis

LAS 7./Ferret 6.71 NOAA/PMEL

TIME : 01-JUN-2011 00:00

DATA SET: AMSRE OCEAN DATA PRODUCTS
(3 Day composite)



INCOIS LIVE ACCESS SERVER - Windows Internet Explorer

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Favorites | INCOIS LIVE ACCESS SERVER

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Choose dataset | Update Plot | Set plot options | Animate | Compare | Google Earth | Show Values | Export to Desktop Application | Save As ... | Link To ... | Print

AMSRE OCEAN DATASETS / 3Day Composite

Sea Surface Temperature

29.91 N

20 E | 140 E

70.06 S

MAPS

- (•) Latitude-Longitude

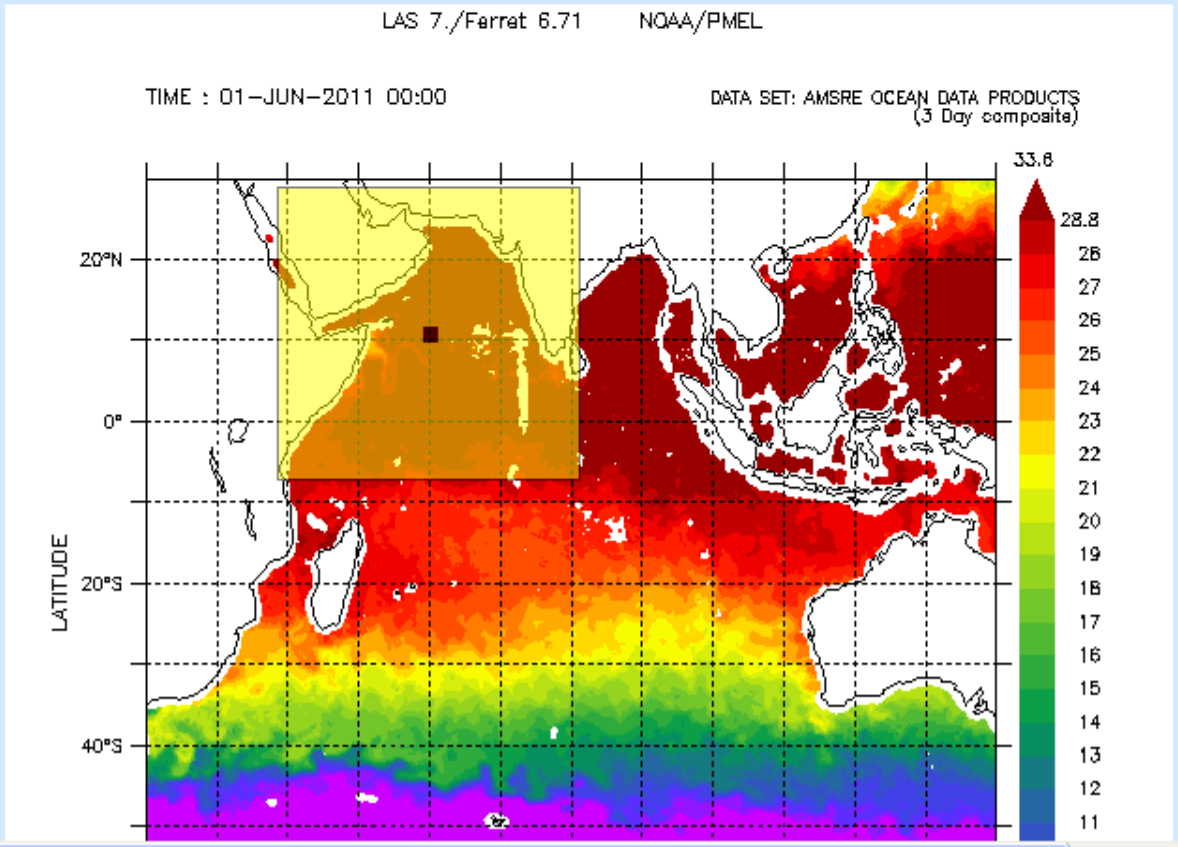
HOVMOLLER PLOTS

- ( ) Longitude-Time
- ( ) Latitude-Time

LINE PLOTS

- ( ) Time Series
- ( ) Longitude
- ( ) Latitude

SCATTER PLOTS



INCOIS LIVE ACCESS SERVER - Windows Internet Explorer

http://las.incois.gov.in/las/getUI.do

File Edit View Favorites Tools Help

INCOIS LIVE ACCESS SERVER

Sea Surface Temperature

29.42 N

37.93 E 79.72 E

5.97 S

MAPS

- (•) Latitude-Longitude

HOVMOLLER PLOTS

- ( ) Longitude-Time
- ( ) Latitude-Time

LINE PLOTS

- ( ) Time Series
- ( ) Longitude
- ( ) Latitude

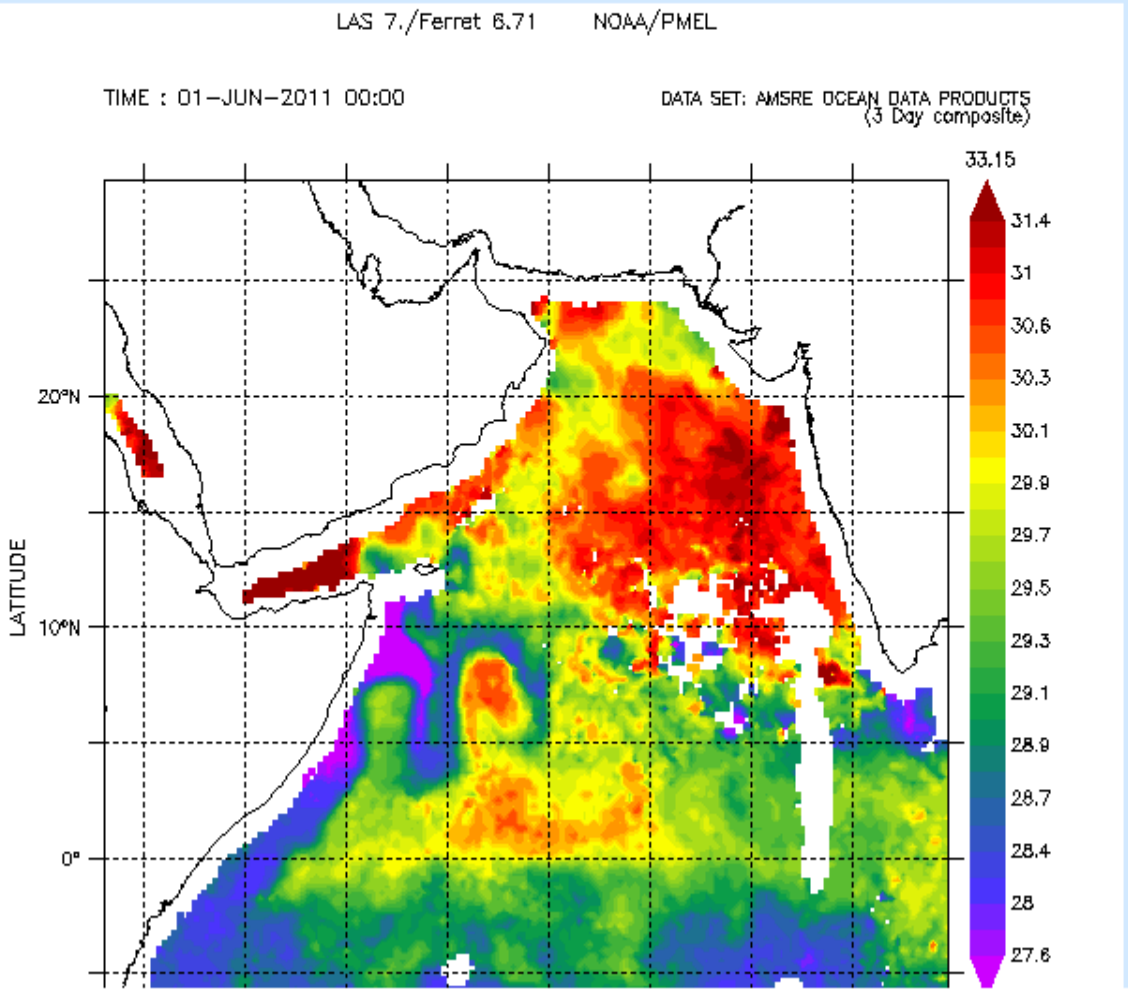
SCATTER PLOTS

- ( ) Property-Property

Date:

Jun 01 2011

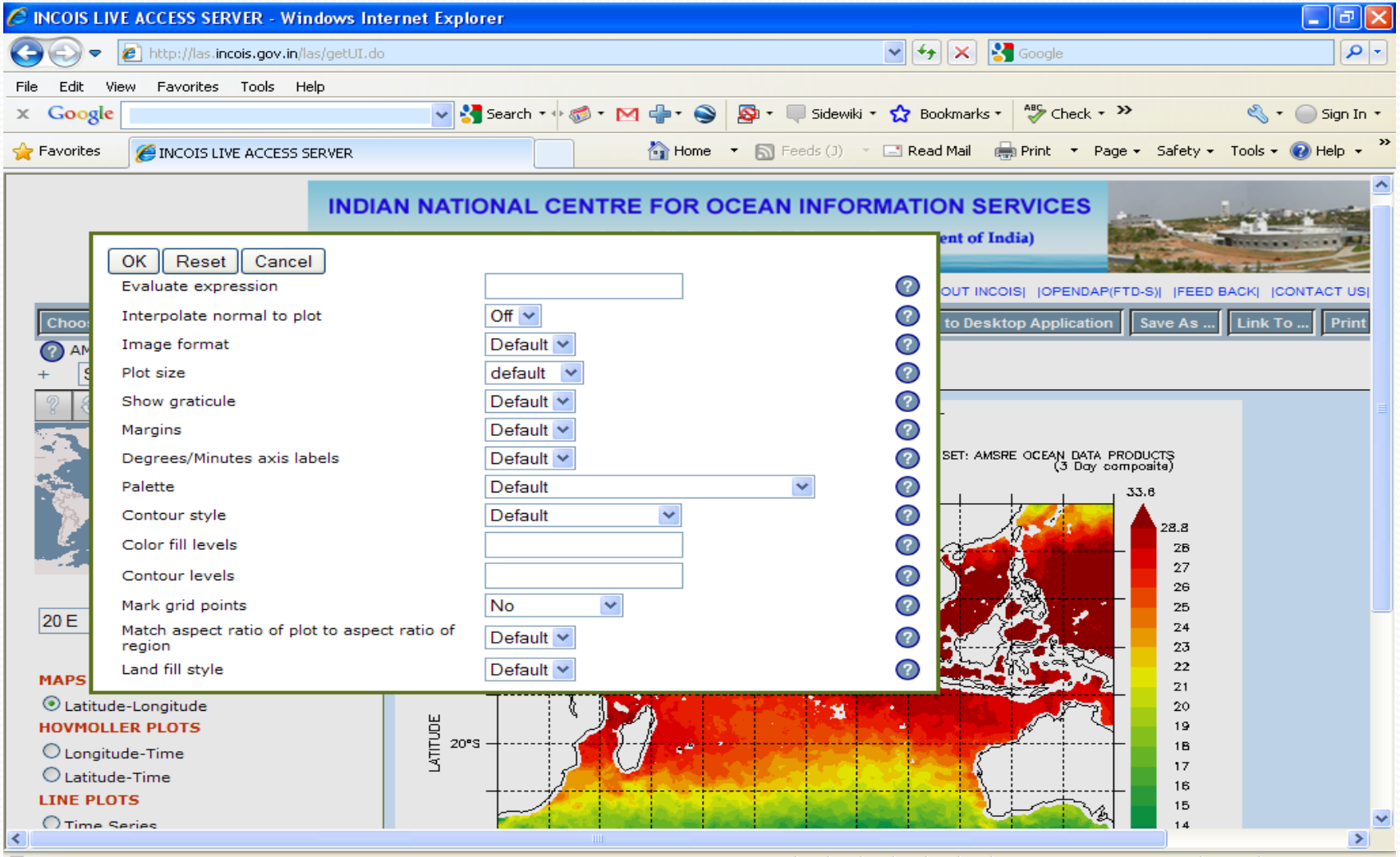
Apply analysis



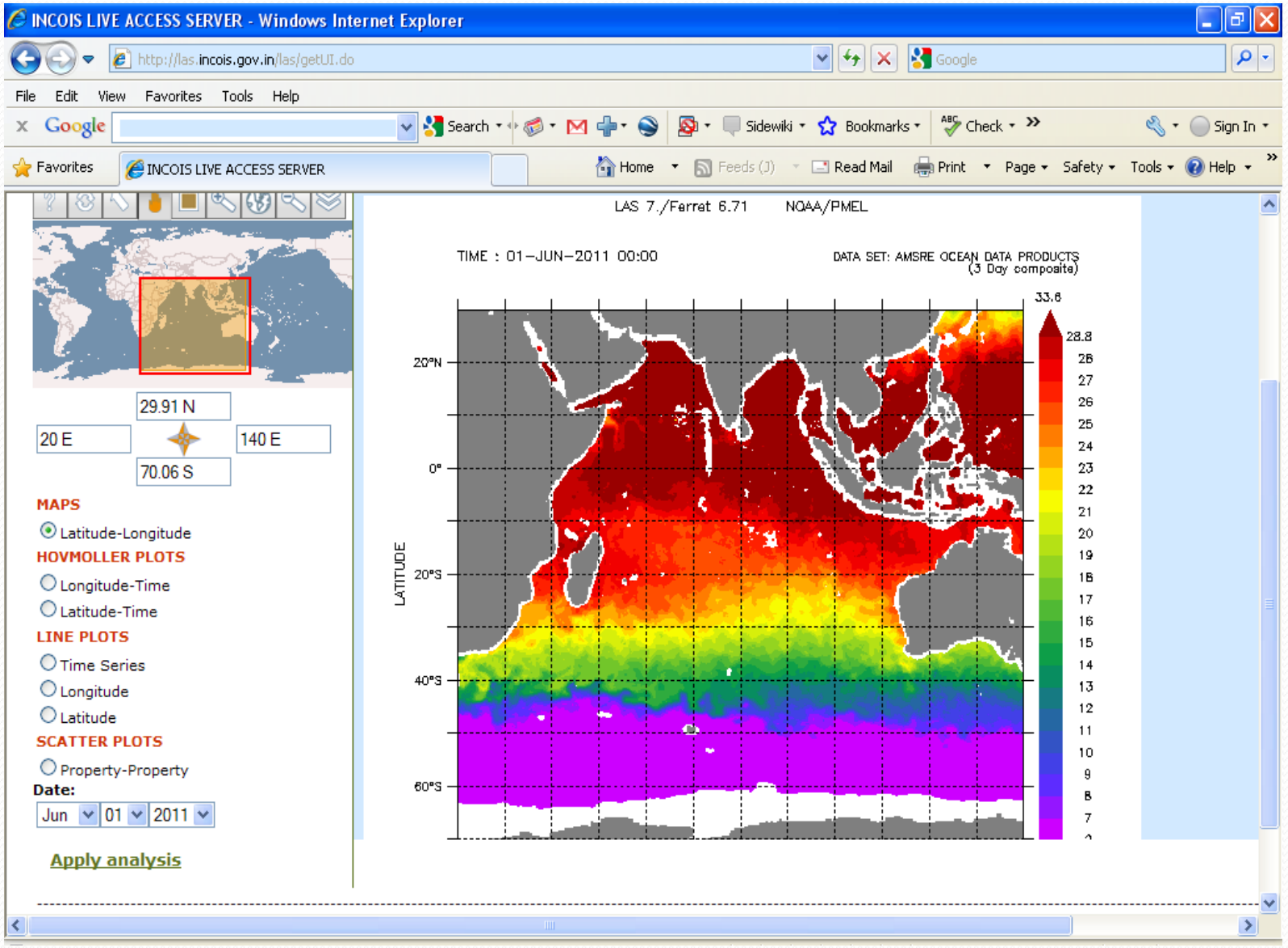
Functionalities

- Choose datasets
- Update plot
- Set plot options
- Animate
- Compare
- Google earth
- Show value
- Export to desktop application
- Save as
- Link to
- Print

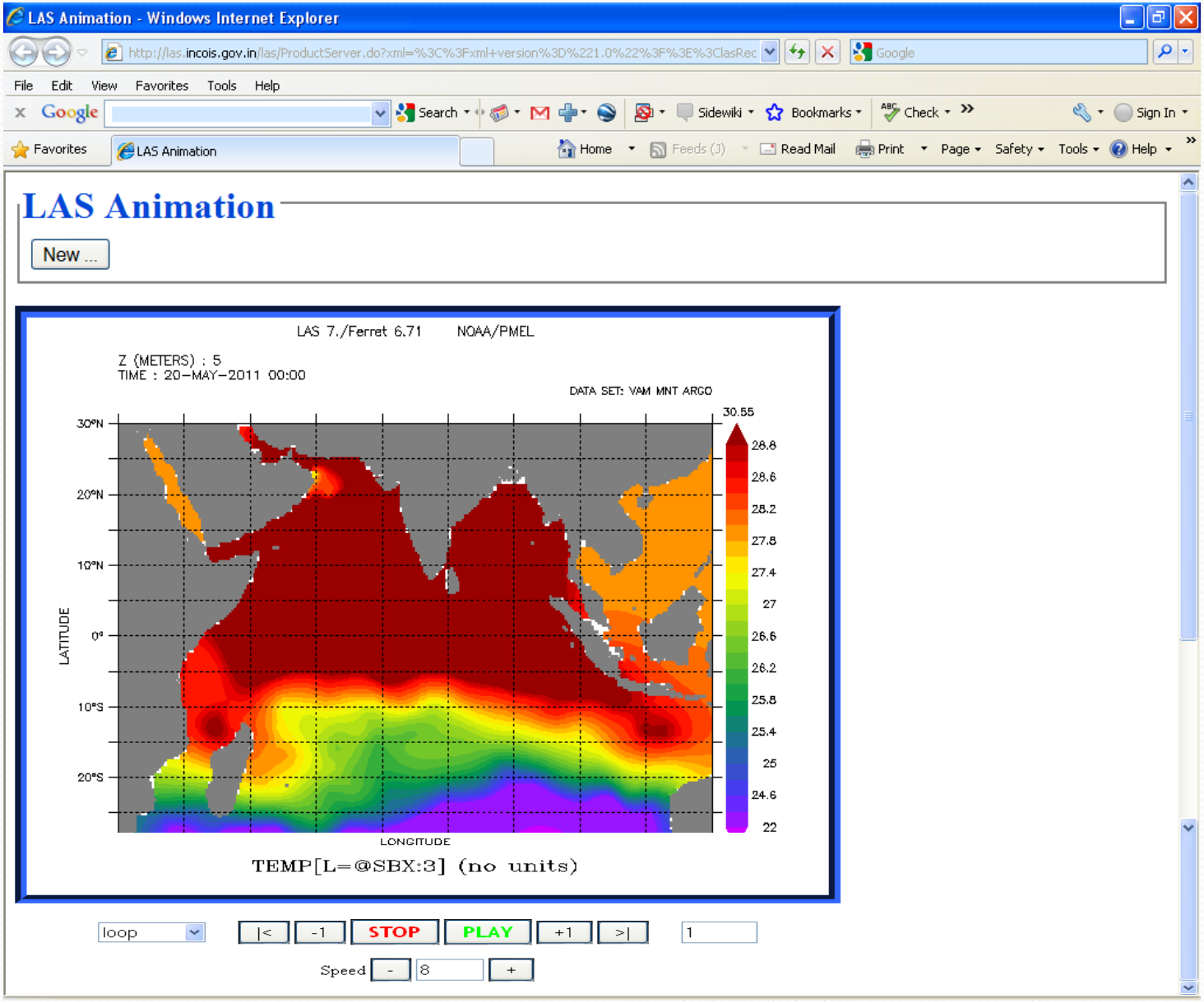
Set plot option



Land filled


INCOIS LIVE ACCESS SERVER - Windows Internet Explorer
http://las.incois.gov.in/las/getUI.do
INCOIS LIVE ACCESS SERVER
LAS 7./Ferret 6.71 NOAA/PMEL
TIME : 01-JUN-2011 00:00
DATA SET: AMSRE OCEAN DATA PRODUCTS
(3 Day composite)
33.6
28.8
LATITUDE
20°N
0°
20°S
40°S
60°S
29.91 N
20 E
140 E
70.06 S
MAPS
Latitude-Longitude
HOVMOLLER PLOTS
Longitude-Time
Latitude-Time
LINE PLOTS
Time Series
Longitude
Latitude
SCATTER PLOTS
Property-Property
Date:
Jun 01 2011
Apply analysis

Animation


LAS Animation - Windows Internet Explorer
http://las.incois.gov.in/las/ProductServer.do?xml=%3C%3Fxml+version%3D%221.0%22%3F%3E%3ClasRec
File Edit View Favorites Tools Help
Favorites
LAS Animation
Home Feeds (J) Read Mail Print Page Safety Tools Help
LAS Animation
New ...
LAS 7./Ferret 6.71 NOAA/PMEL
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TIME : 20-MAY-2011 00:00
DATA SET: VAM MNT ARGO
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28.6
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27.4
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26.6
26.2
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22
30°N
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20°S
LATITUDE
LONGITUDE
TEMP[L=@SBX:3] (no units)
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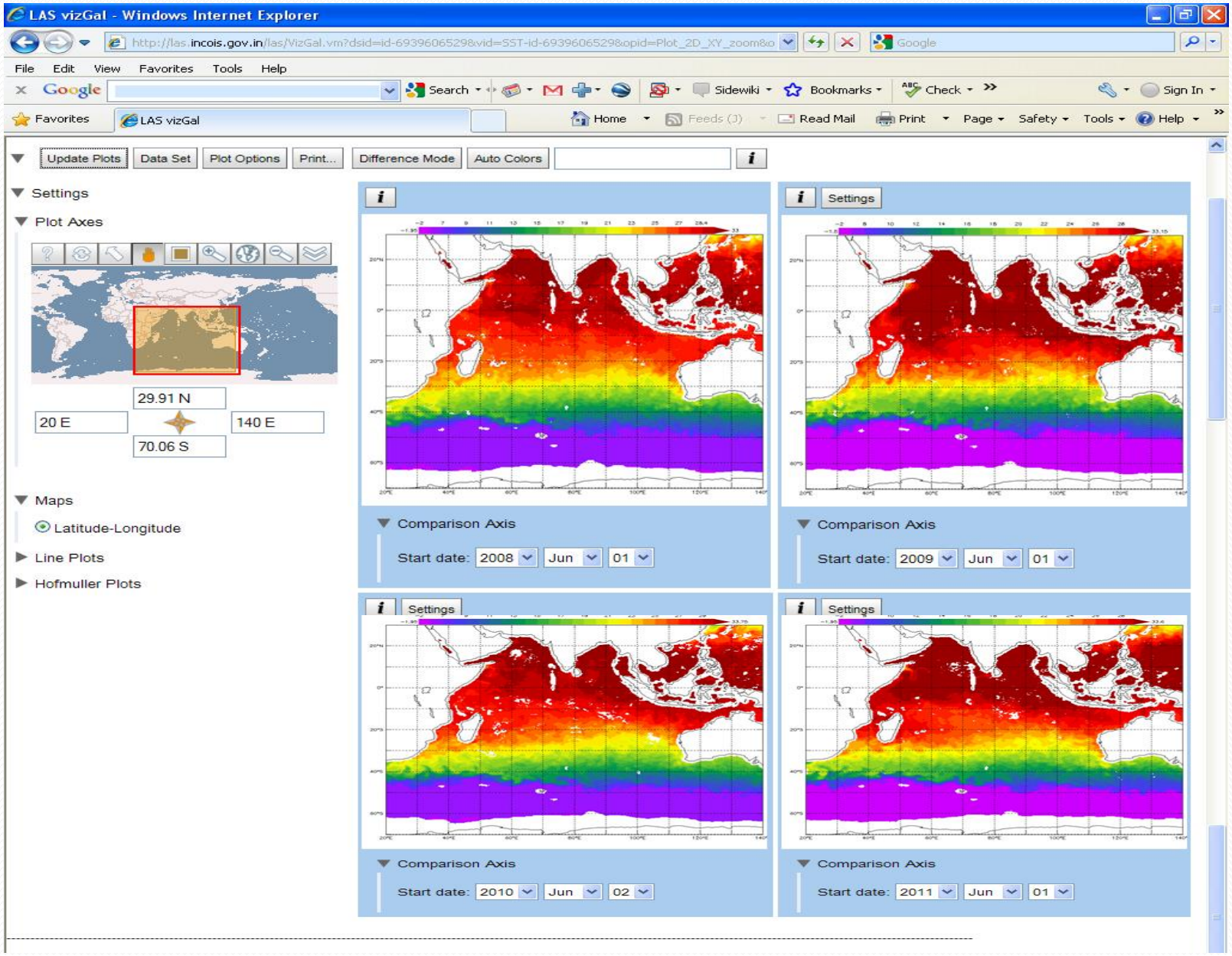
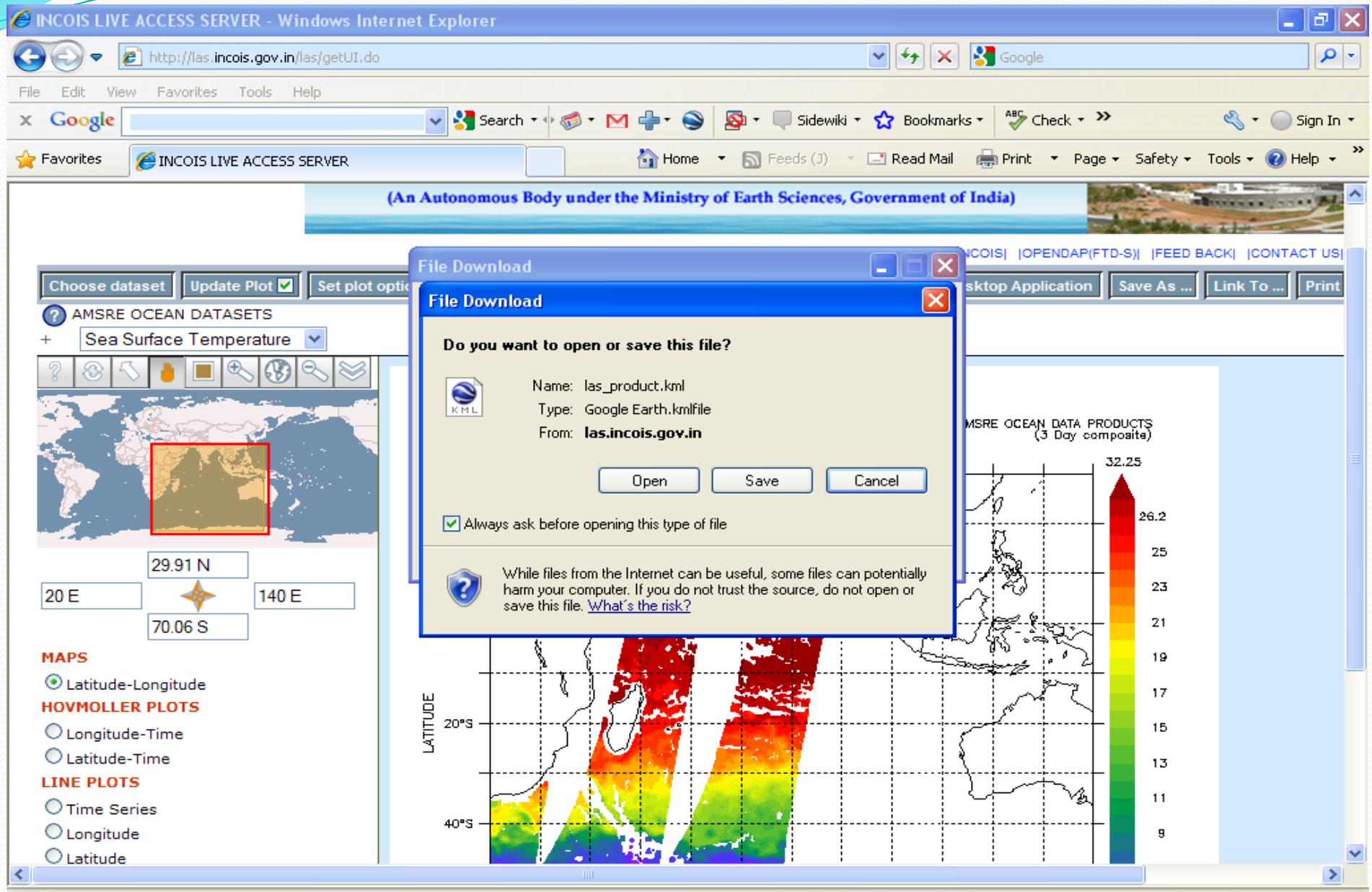
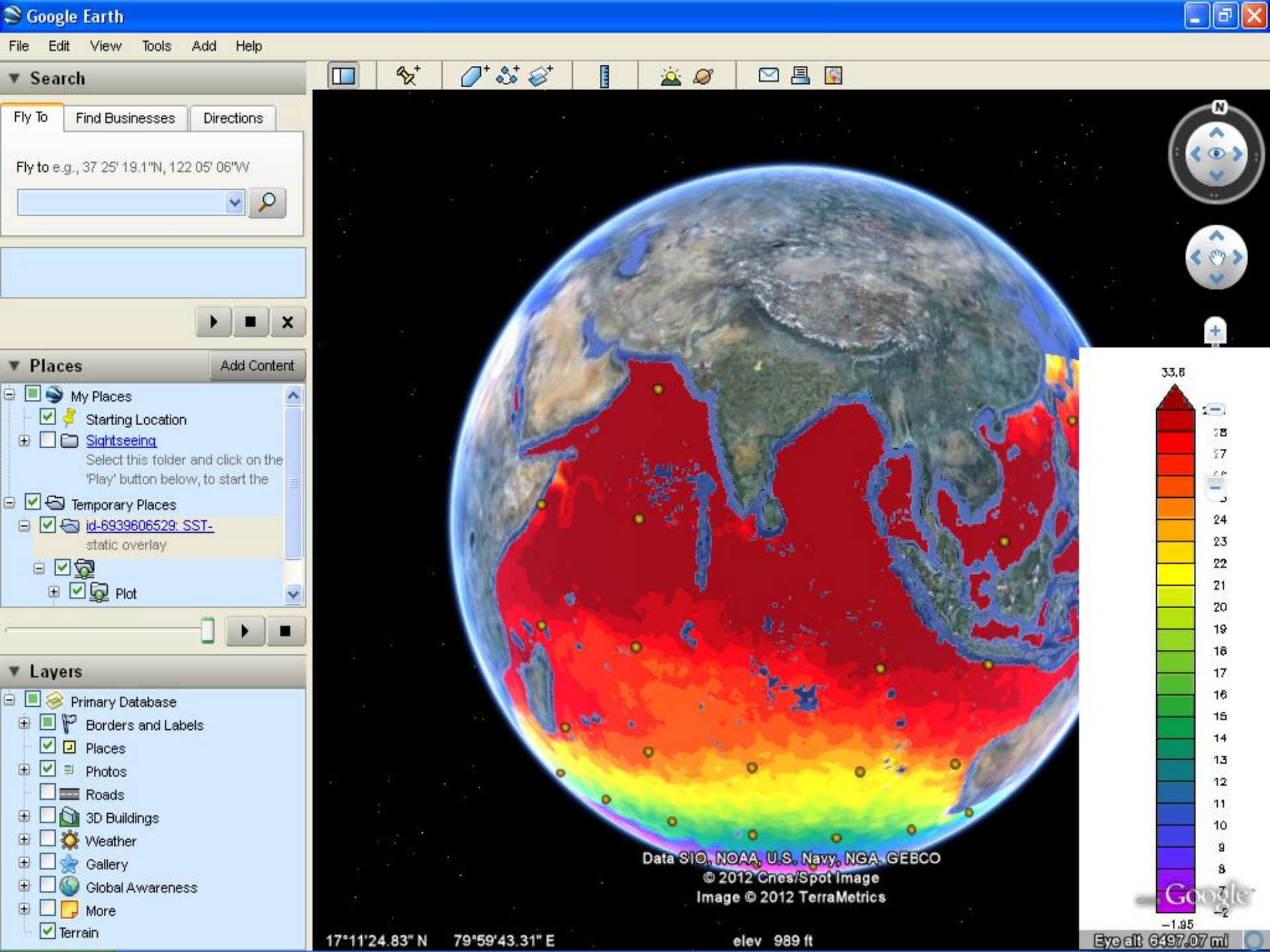
compare


LAS vizGal - Windows Internet Explorer
http://las.incois.gov.in/las/VizGal.vm?dsid=id-6939606529&vid=SST-id-6939606529&opid=Plot_2D_XY_zoom&o
File Edit View Favorites Tools Help
Favorites
LAS vizGal
Update Plots
Data Set
Plot Options
Print...
Difference Mode
Auto Colors
Settings
Plot Axes
29.91 N
20 E
140 E
70.06 S
Maps
Latitude-Longitude
Line Plots
Hofmuller Plots
Settings
Comparison Axis
Start date: 2008 Jun 01
Start date: 2009 Jun 01
Start date: 2010 Jun 02
Start date: 2011 Jun 01

Google earth




Google Earth
File Edit View Tools Add Help
Search
Fly To
Find Businesses
Directions
Fly to e.g., 37 25' 19.1"N, 122 05' 06"W
Places
Add Content
My Places
Starting Location
Sightseeing
Select this folder and click on the 'Play' button below, to start the
Temporary Places
id-6939606529: SST-
static overlay
Plot
Layers
Primary Database
Borders and Labels
Places
Photos
Roads
3D Buildings
Weather
Gallery
Global Awareness
More
Terrain
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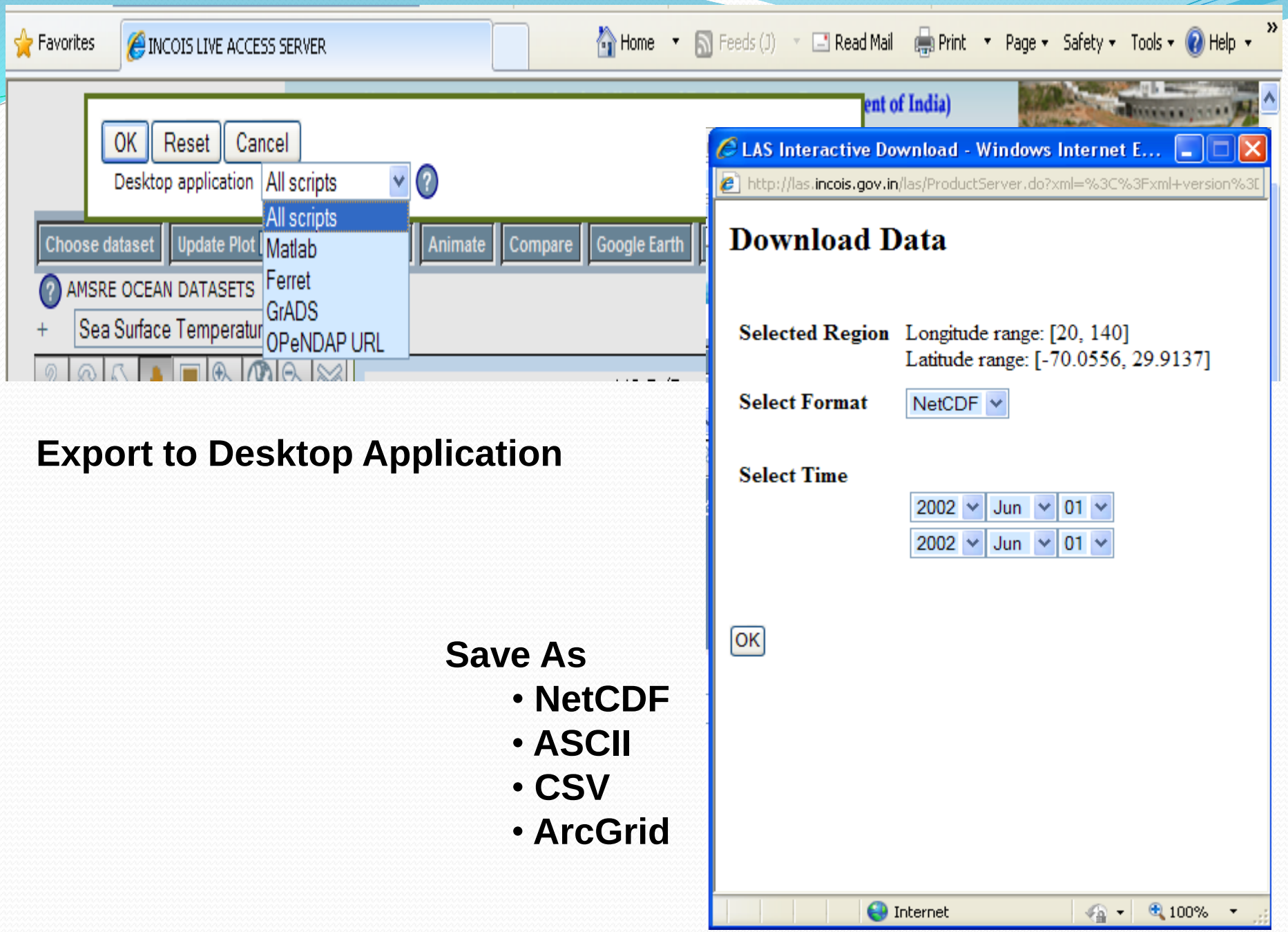
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
© 2012 Cnes/Spot Image
Image © 2012 TerraMetrics
17°11'24.83" N 79°59'43.31" E elev 989 ft
Eye alt 6497.07 mi

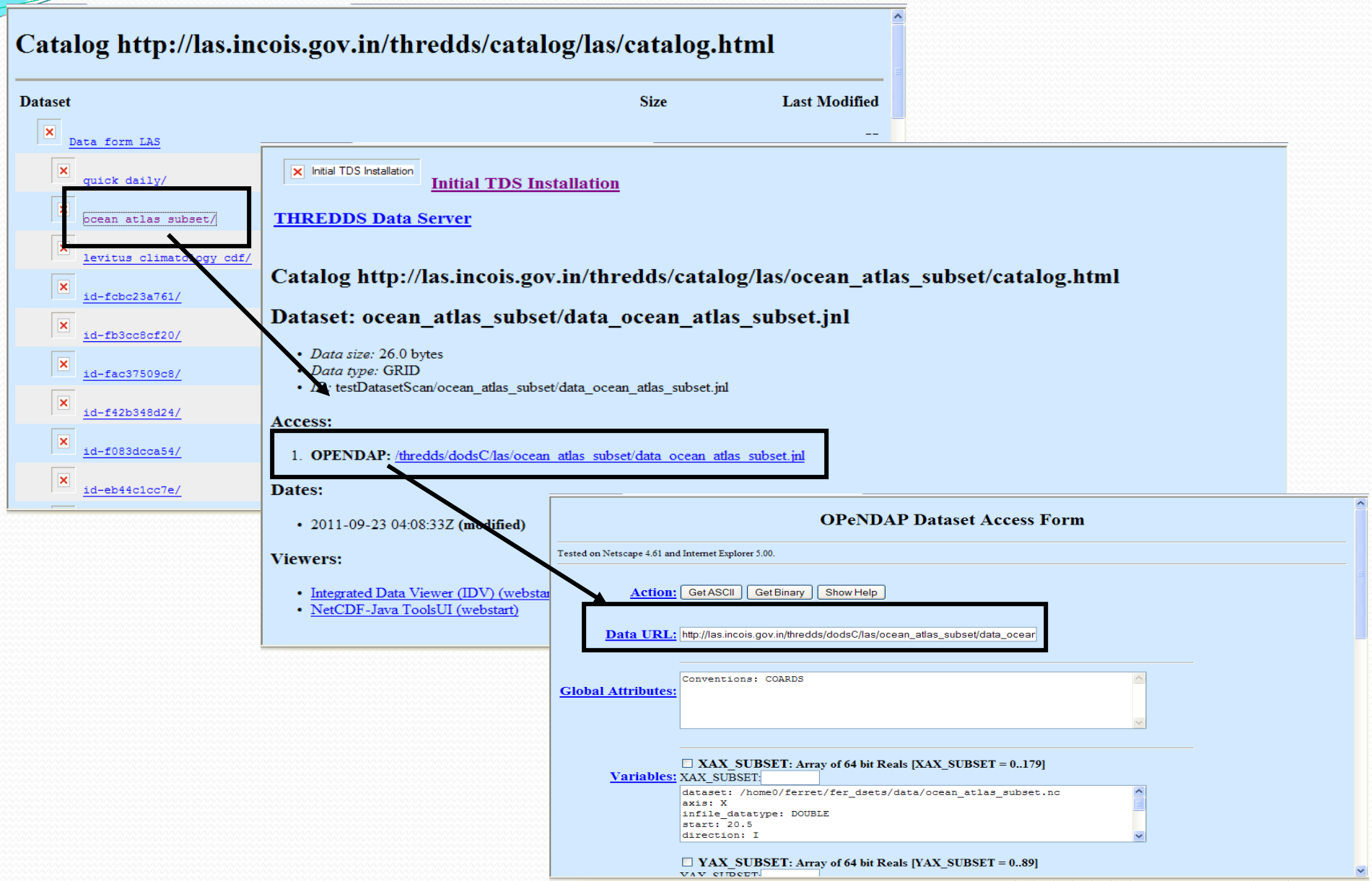


Export to Desktop Application

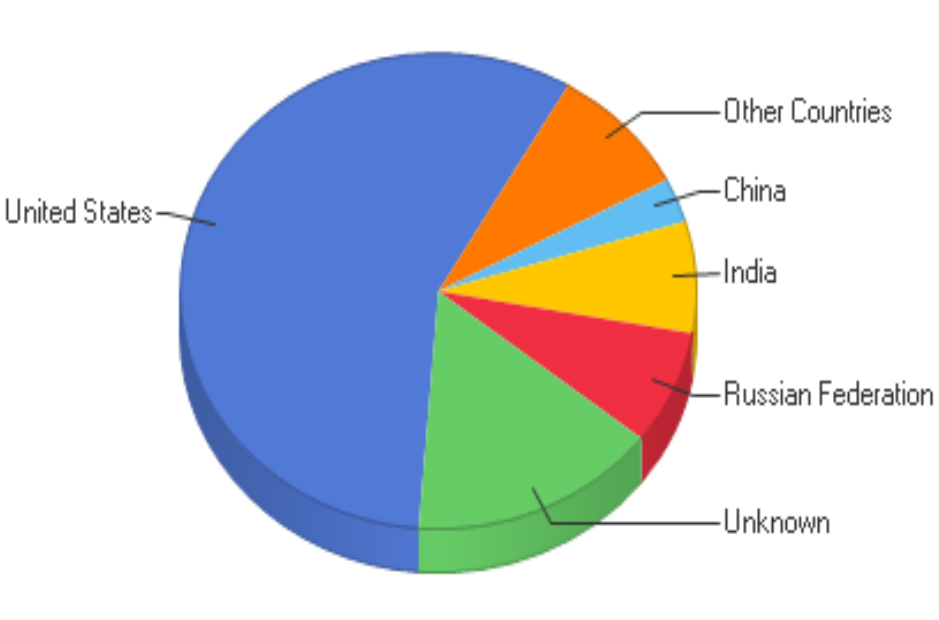
Save As

- **NetCDF**
- **ASCII**
- **CSV**
- **ArcGrid**

OpenDAP links of LAS



INCOIS Live Access Server – User Statistics

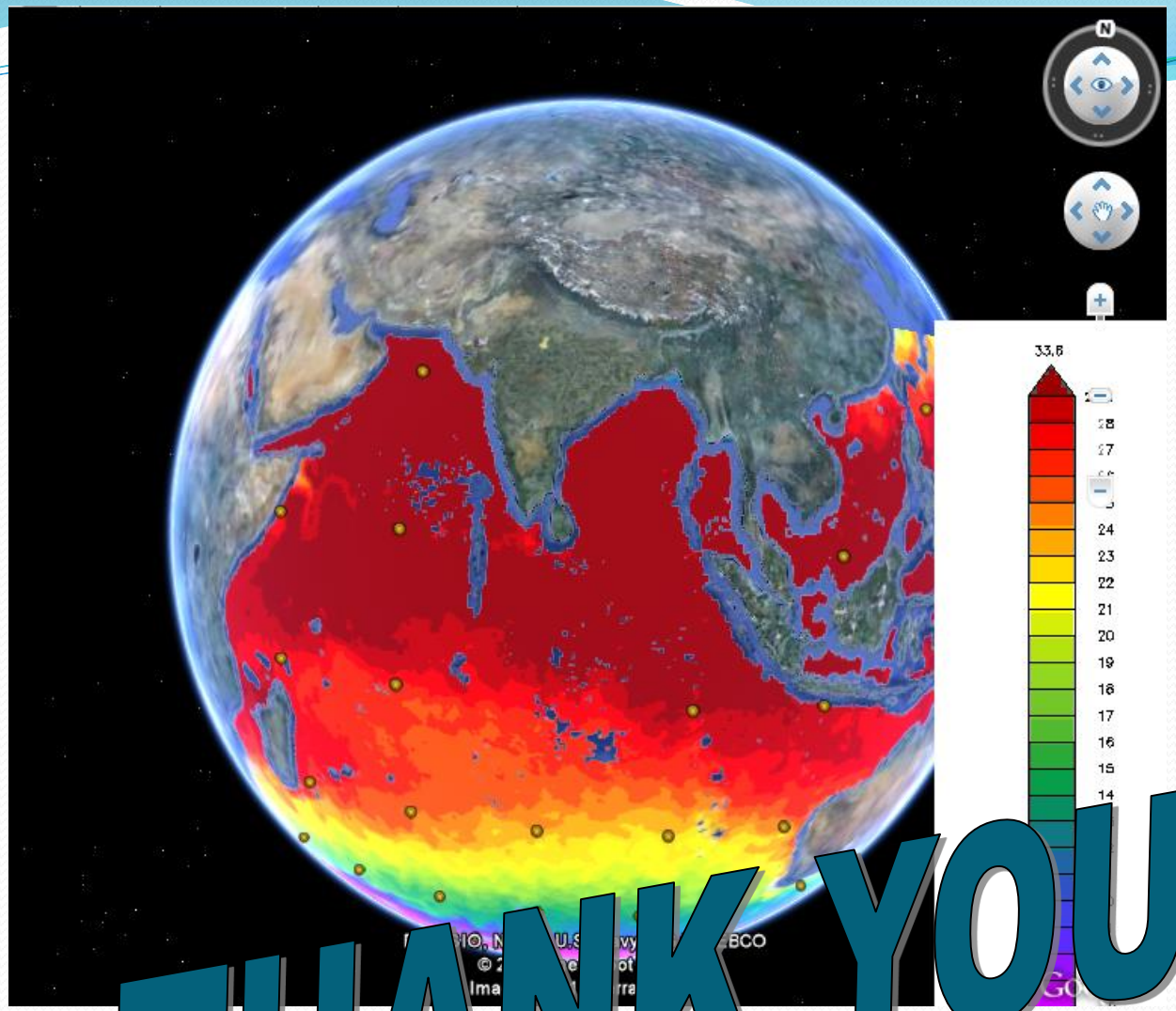


	Country	Hits	Visitors	% of Total Visitors
1	United States	19,215	5,630	57.12
2	Unknown	44,542	1,533	15.55
3	Russian Federation	875	770	7.81
4	India	30,956	751	7.62
5	China	3,703	297	3.01
6	Germany	455	77	0.78
7	Japan	470	75	0.76
8	Korea, Republic of	36,089	63	0.64
9	Canada	235	62	0.63
10	France	1,632	52	0.53
11	Taiwan	174	45	0.46
12	United Kingdom	714	41	0.42
13	Mauritius	1,793	37	0.38
14	Malaysia	41	37	0.38
15	Hong Kong	121	36	0.37
16	South Africa	107	35	0.36
17	Australia	560	24	0.24
18	Indonesia	464	24	0.24
19	Brazil	776	21	0.21
20	Ireland	27	16	0.16
21	Latvia	16	16	0.16
22	Sweden	118	15	0.15

URL: http://las.incois.gov.in

Contact:
dmg@incois.gov.in
Data and information Management Group, INCOIS

Thank You



THANK YOU