Lecture on

Generation of Potential Fishing Zone Maps

Training Course on
'Marine GISfor Operational Oceanography'
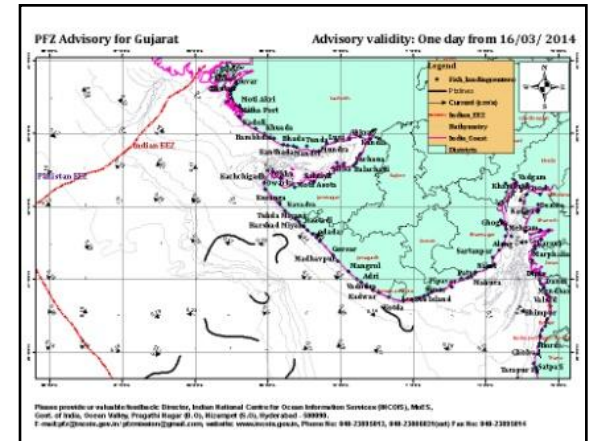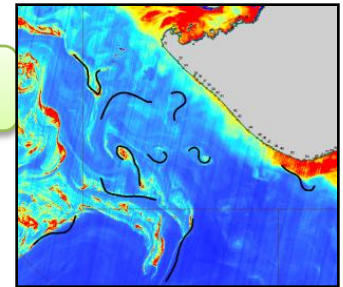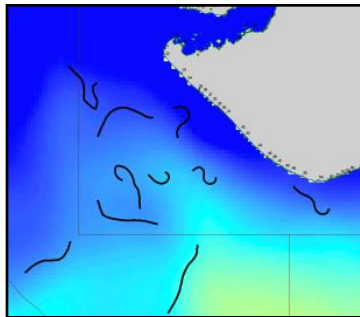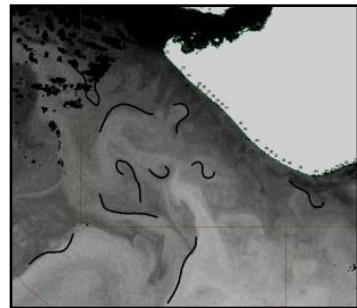
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Potential Fishing Zone Advisory Generation

Add Processed satellite images (SST,CHL and GHRSST)

SST & GHRSST

Chlorophyll

Create/Add Shapefile

Delineate Gradient

Delineate Concentration

Pointing out PFZ on Lines for nearest Landing Center

Measurement of Distance, Depth and Location (Lat/Long)

Creating Smart Maps
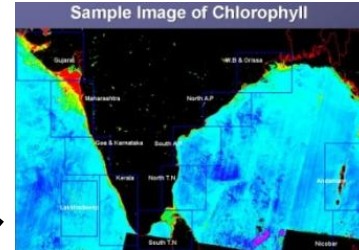
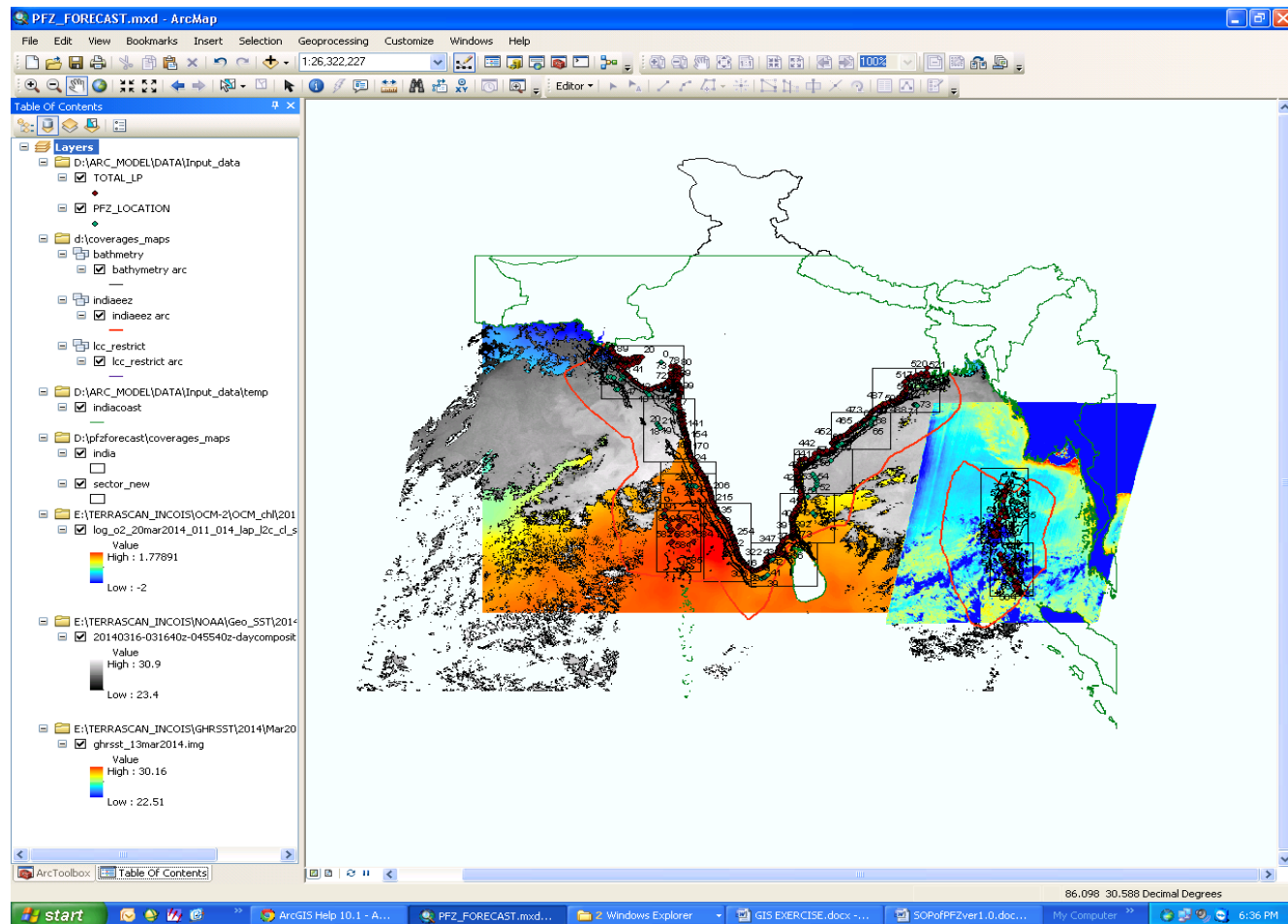## How to delineate PFZ Lines

Load all required processed raster images (SST, CHL and GHRSST) and Vector layers that you will be using for demarcating PFZ areas.

Add it using the Add Data button on the Standard toolbar.

Creating a New Shape file (Points, Polylines, and Polygons)

1. Open Arc Catalog
2. Highlight the folder that will contain your new shapefile.
3. Right-click on the folder and select New > Shapefile.
4. The Create New Shapefile dialog box opens
   I. Name the shape file "21Jan16" and select the feature type (Point, Polyline, or Polygon) from the drop-down menu.
   II. Set the Spatial Reference (Projection/Datum) by clicking the Edit button. This opens the Spatial Reference Properties dialog box.

Below are two methods to set the spatial reference

a. Choose Select > (Projected Coordinate Systems or Geographical Coordinate Systems) > click the Add button > click OK in the Spatial Reference Properties dialog box > click OK in the Create New Shapefile dialog box. OR
b. Choose Import > navigate to your folder that contains data with the coordinate system already defined > click on the dataset > click the Add button > click OK in the Spatial Reference Properties dialog box > click OK in the Create New Shapefile dialog box

Adding the New Shape file to the Arc MAP

1. Open your Arc Map project.
2. Add the new (empty) shapefile to your project by:
a)   Click-on the Add Data icon on the Standard Toolbar in Arc Map. OR
b)   Drag the file from Catalog to the Table of Contents of your Arc Map project.

EDITING

1. Open the Editor Toolbar from Customize > Toolbars > Editor.
2. From the Editor drop-down menu select Start Editing. This opens the Start Editing dialog box. Select the shapefile that you will be editing > Click OK to close the dialog box.
3. Select 'pencil' tool. Start demarcating PFZ areas by drawing lines along the suitable areas. Save your edits during the edit session by selecting.
4. Save Edits from the drop-down menu on the editor toolbar.
5. Stop the editing session by selecting Stop Editing from the drop-down menu on the editor toolbar. The Save edits dialog box opens. Select Yes, No, or Cancel.
6. Create a new point shape file PFZ location.
7. Start editing the point shapefile and add 3 to 4 points on each PFZ lines demarcated in point 3.
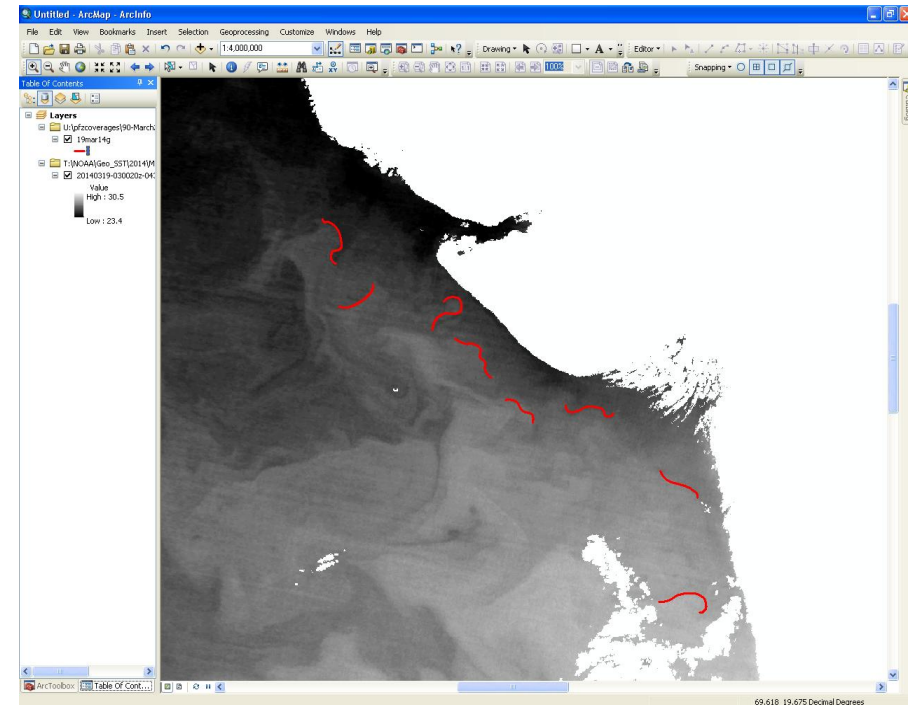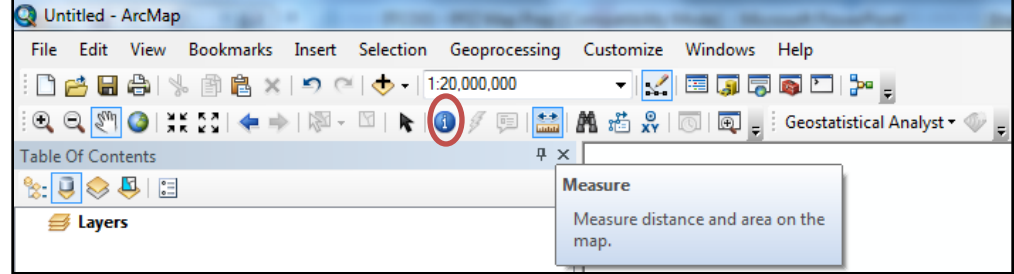
Measure Distance, Depth and Location

1. Add two fields in the attribute table of PFZ location point file and name it as Distance and Depth.
2. Start Editing the PFZ location point file.
3. Measure the distance of Potential fishing zone (individual points on PFZ lines) from the shoreline using Measure Ruler.
4. Overlay Bathymetry_Gebco_final shapefile on the map and label the bathymetry values. Check the Bathymetry contour where the PFZ location is falling and enter the value in Depth Field.
5. Stop Editing.
6. Go to DataManagement> Features> Add XY Coordinates. Give the PFZ location point file as input.

Create a user friendly map

1. Add all the layers Indian District File, PFZ Lines wind/current vector and base maps (like satellite images or online base layers)
2. Label them and create a user friendly PFZ maps.

Create KML file

1. Add the shapefile as layer in the table of content
2. Go to conversion>To KML>layer to KML