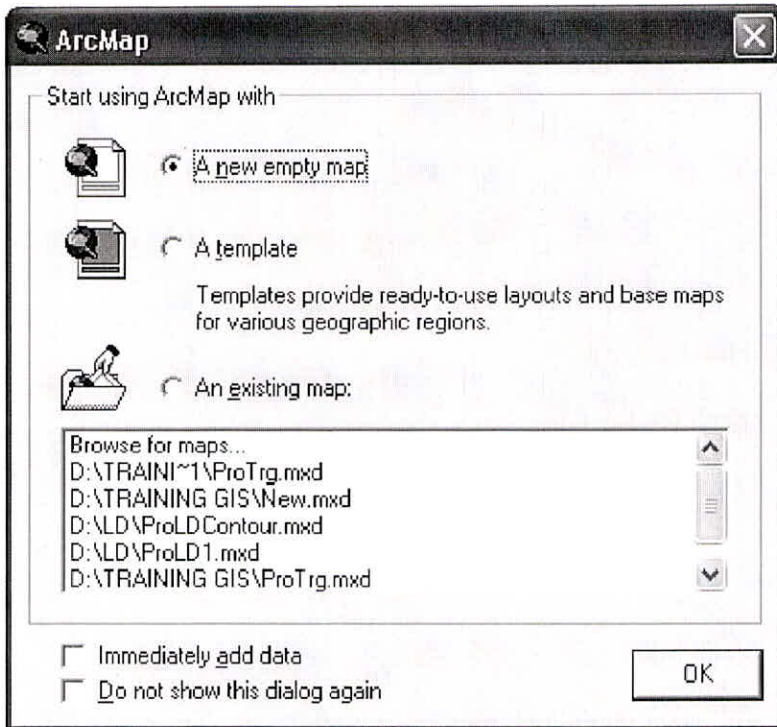




DIGITIZING - MARKING STUDY AREA ON TOPOSHEET

1. Launch ArcMap from Start → Programs → ArcGIS → ArcMap.

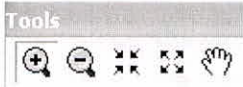



2. Click **A New Empty Map** from the window.

3. Click the **Add Data** button  to add toposheet (63F12_warp.img) located in **D:\Training GIS\RectifiedTIFF** folder, to your map.

4. Click the **Add Data** button  to add Vector Personal Geodatabase created using ArcCatalog named **Ateha** located in **D:\Training GIS\Vector** folder, to your map.

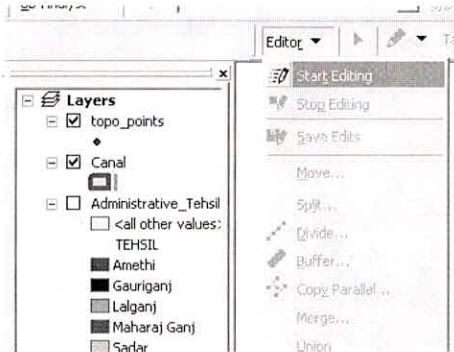
5. If the spatial reference warning message dialog appears Click **OK**.

6. Zoom in and pan  to the location from where you want to start digitizing.

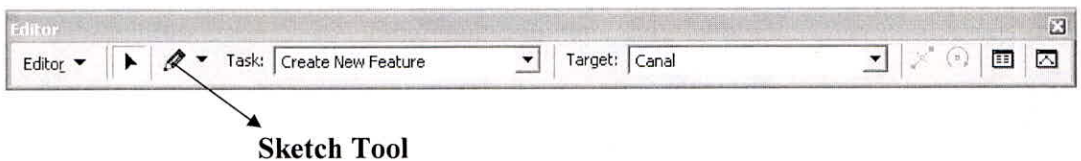
7. If not already visible, then open the **Editor** toolbar  (click on in the Standard toolbar to open the Editor toolbar).

8. Alternatively, Editor Toolbar can also be opened by right click on standard toolbar and selecting Editor (as was done for Georeferencing toolbar)

9. In the Editor toolbar, click on the Editor dropdown arrow and select **Start Editing**.

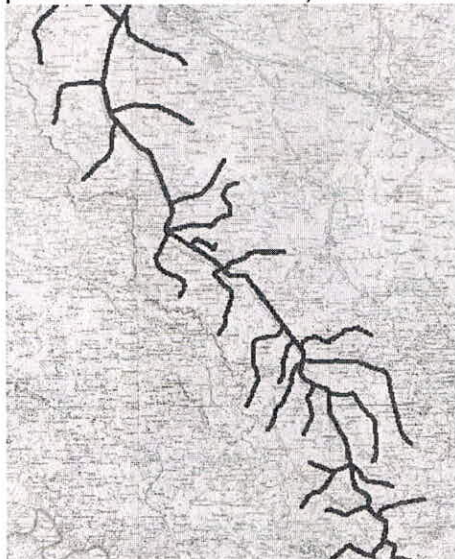


10. Make the Ateha editable. From the Editor toolbar, select **Start Editing**; change the **Target:** to the **Canal** layer; and make sure **Task:** is set to **Create New Feature**.



11. From the Editor toolbar, select the Sketch tool.

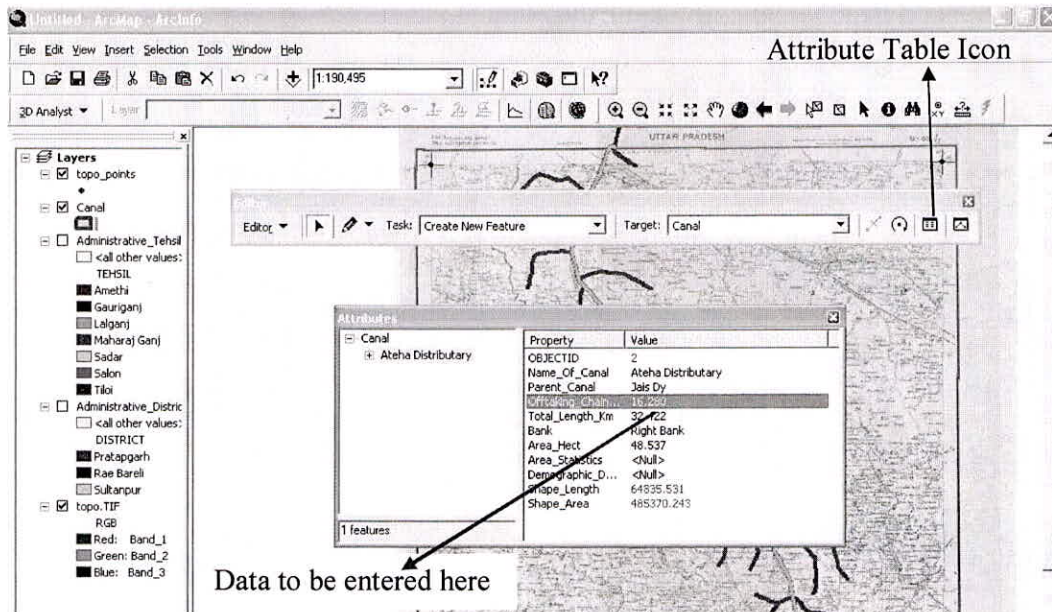
12. To finish digitizing the feature, just double-click with the left mouse button to close it (i.e., the second-to-last point or when you get close to where you placed the first vertex). Your new feature should look something like this:



13. **Save Editing** by clicking Save Edits from Editor drop down.

14. The new layer has an **Attribute Table**. Appropriate data needs to be entered in respective fields.


15. Open attribute table by selecting **Attribute** icon from editor toolbar.




16. Enter required information in the fields by typing.

17. Click **Save Editing** and then **Stop Editing** from Editor Toolbar.

DIGITIZING OTHER FEATURES (POINT TYPE)

1. Click the **Add Data** button  to add Vector Feature Class created using ArcCatalog named **Builtup_Point** located in **D:\Training GIS\Vector** folder, to your map.


2. If not already visible, then open the **Editor** toolbar  (click on in the Standard toolbar to open the Editor toolbar).

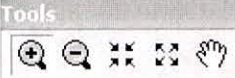
3. Alternatively, Editor Toolbar can also be opened by right click on standard toolbar and selecting **Editor**.

4. In the **Editor** toolbar, click on the **Editor** dropdown arrow and select **Start Editing**.

5. All of the features of the Editor toolbar are now available. Use the **Target:** dropdown list to select **Builtup_Point** as the target layer. (Edits are saved in the layer indicated in the **Target Box**.)

6. In the **Editor** toolbar, use the **Task:** dropdown list to select **Create New Feature**.

7. Use the dropdown list to select (click on) the **Sketch Tool**. 

8. Zoom in and pan  to the location from where you want to start digitizing the **Builtup_Point** as a point.

9. Move the cursor (now shaped like crosshairs) over the center of one of the identified **Builtup_Point**. Click once with the cursor.

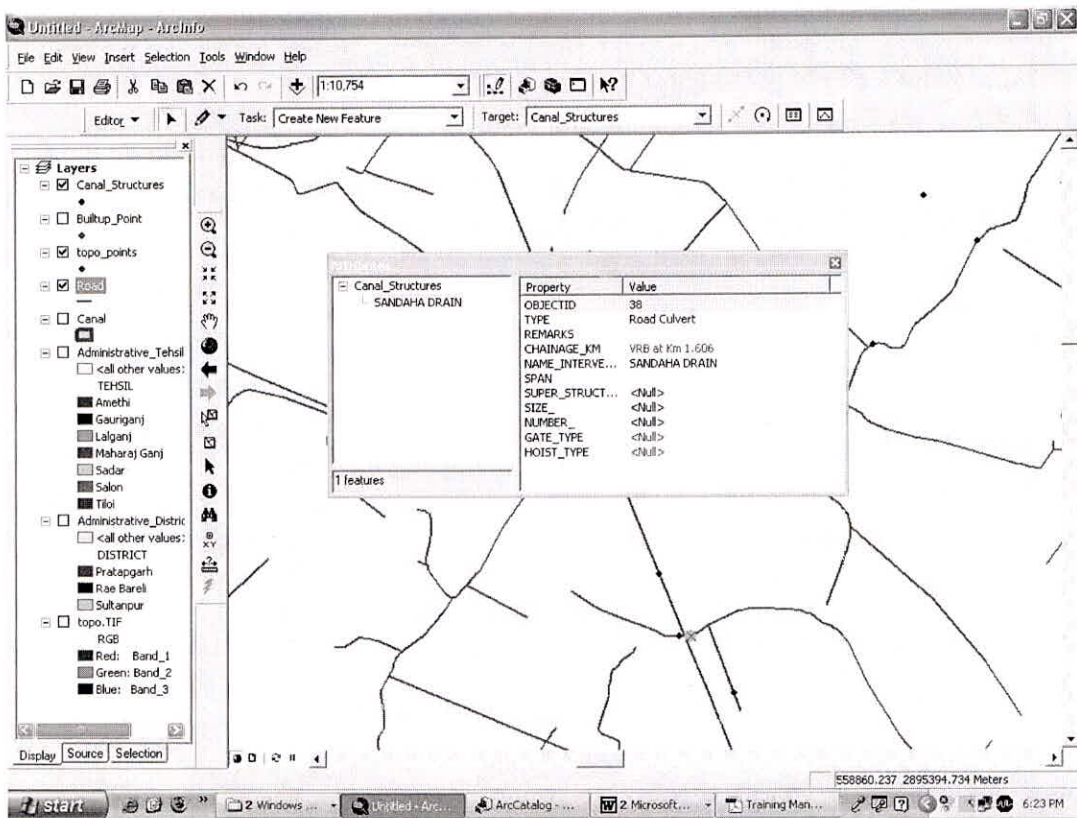
10. Repeat for several other **Builtup_Point Feature**.

11. Notice: Since the Feature Class for the feature has been set to **point**, only point features are created.

12. **Save Editing** by clicking Save Edits from Editor drop down.

13. The new layer has an **Attribute Table**. Appropriate data needs to be entered in respective fields.

14. Open attribute table by selecting **Attribute** icon from editor toolbar.




15. Enter required information in the fields by typing.


16. In the **Editor** Toolbar, click on the **Editor** dropdown list, select **Stop Editing**, and select **Yes** in the confirmation dialog to save edits.

17. The point symbol and size can be changed by clicking on the **Point** in the **Table of Contents**. Change the settings in the **Symbol Selector** dialog to something larger that easily shows up on the image.

18. Repeat same steps for other point type features in the exercise like Canal_Structures, Tree, Junctions etc.

DIGITIZING OTHER FEATURES (LINE TYPE)

1. Click the **Add Data** button  to add Vector Feature Class created using ArcCatalog named **Road** located in **D:\Training GIS\Vector** folder, to your map.


2. If not already visible, then open the **Editor** toolbar  (click on in the Standard toolbar to open the Editor toolbar).


3. Alternatively, Editor Toolbar can also be opened by right click on standard toolbar and selecting **Editor**.

4. In the **Editor** toolbar, click on the **Editor** dropdown arrow and select **Start Editing**.

5. All of the features of the Editor toolbar are now available. Use the **Target:** dropdown list to select **Road** as the target layer. (Edits are saved in the layer indicated in the **Target Box**.)

6. In the **Editor** Toolbar, use the **Task:** dropdown list to select **Create New Feature**.

7. Use the dropdown list to select (click on) the **Sketch Tool** .

8. Zoom in and pan  to the location from where you want to start digitizing the **Road as a Line**.

9. Move the cursor (now shaped like crosshairs) over the center of one of the identified road.

10. Click once with the cursor, and start clicking on the traces of the road on toposheet.

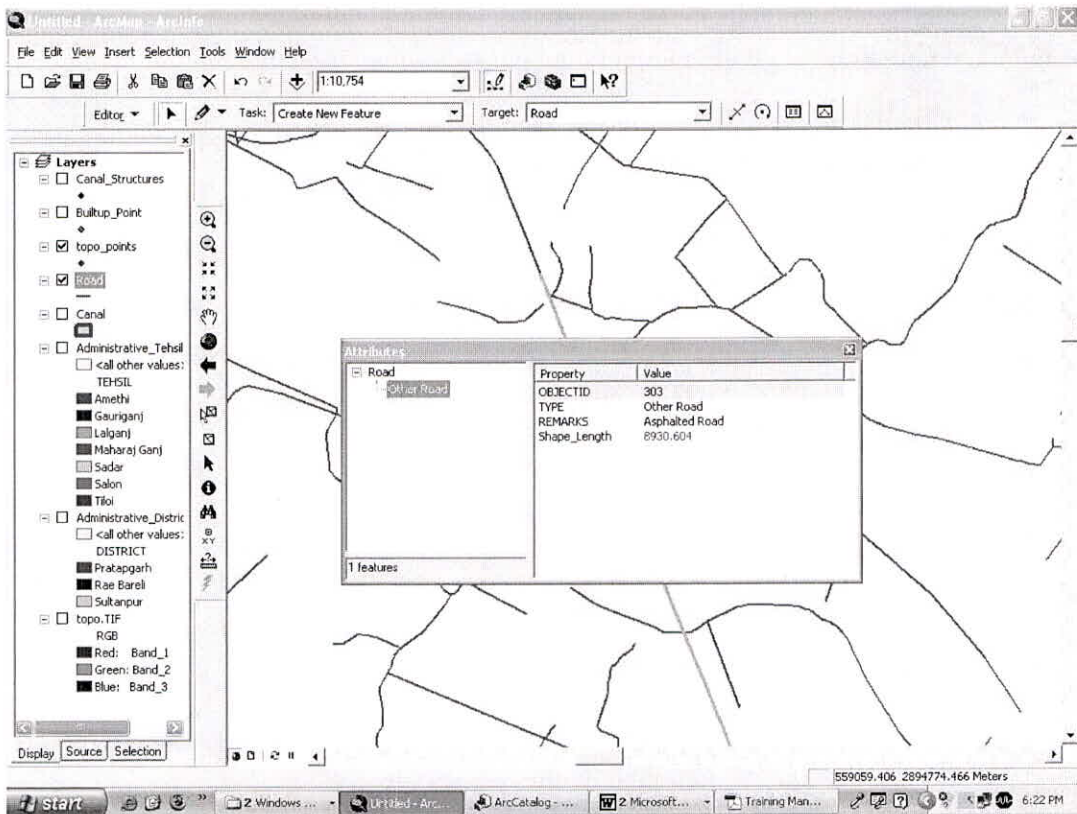
11. Follow the complete path of the road; double click at the last point to complete the feature.

12. Repeat for several other **Line Feature**.

13. **Save Editing** by clicking Save Edits from Editor drop down.

14. The new layer has an **Attribute Table**. Appropriate data needs to be entered in respective fields.

15. Open attribute table by selecting **Attribute** icon from editor toolbar.



16. Enter required information in the fields by typing.

17. In the **Editor** Toolbar, click on the **Editor** dropdown list, select **Stop Editing**, and select **Yes** in the confirmation dialog to save edits.

18. The **Line Symbol** and **Size** can be changed by clicking on the **Line** in the **Table of Contents**. Change the settings in the **Symbol Selector** dialog to something larger that easily shows up on the image.

19. Repeat same steps for other Line type features in the exercise viz. Patrol Tracks, Streams, Railway, and Power Lines etc.

Note: In the same way you can digitize the polygon features.