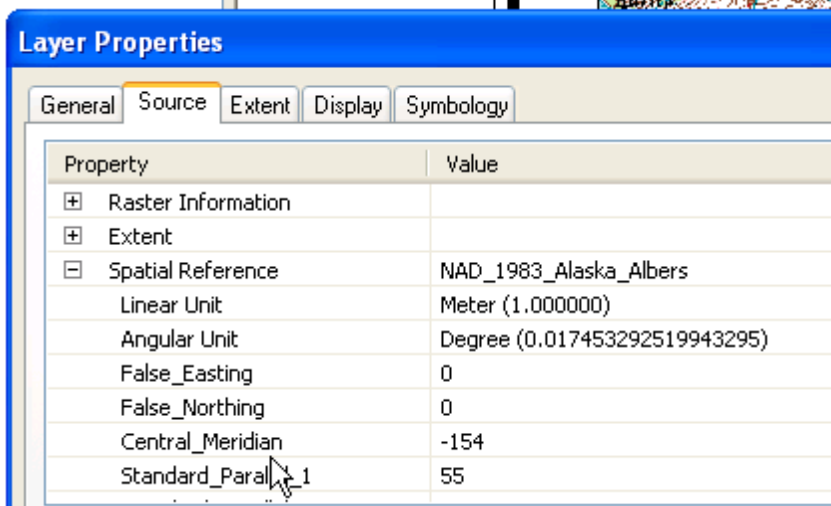


KEY:Week#9 Georeferencing Problems

. Scanned Paper Map

The scanned map Kodiak.tif was originally in UTM NAD83 projection.

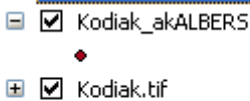
Process this raster so that it is in the Alaska Albers coordinate system.



Step 1) Develop table of known map coordinates

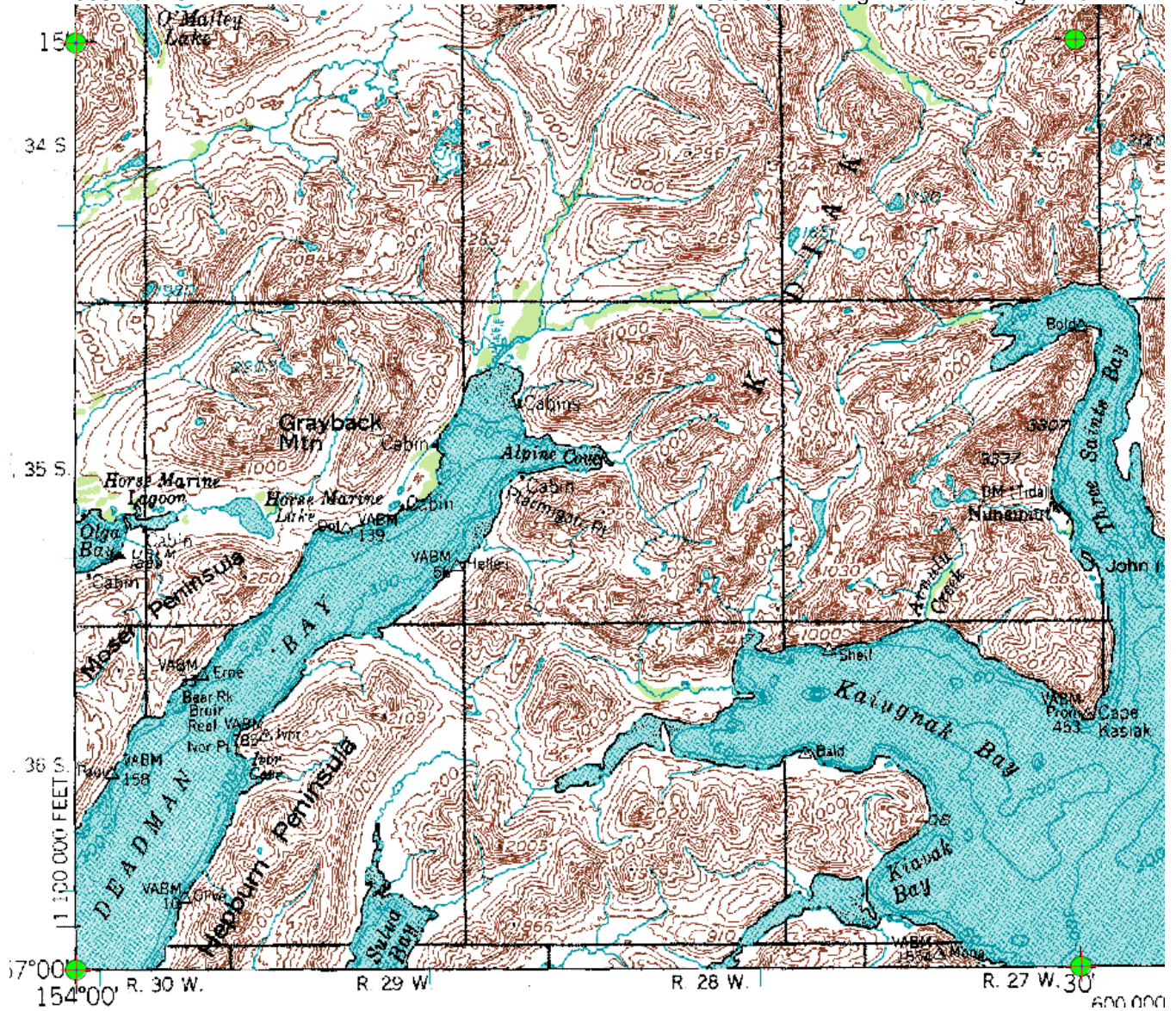
ID	X	Y
1	-154	57
2	-154	57.25
3	-153.5	57
4	-153.5	57.25

Step 2) Create point event layer from table(Make XY geoprocessing tool), then project (Project geoprocessing tool) point event layer to UTM NAD27.



Step 3) Georeference using UTM NAD83 control points.

Step 4) Project Raster from UTM NAD83 to Alaska Albers NAD83



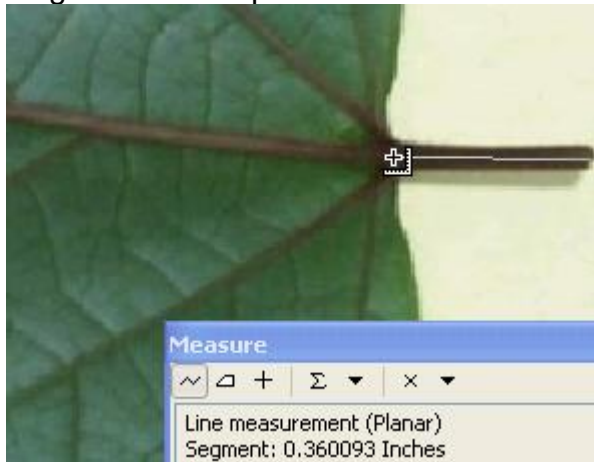
Check: Alaska Albers NAD83 has central meridian at -154 degrees....



if georeferencing is perfect, X=0 should be on the -154 meridian.

. Leaf Photo

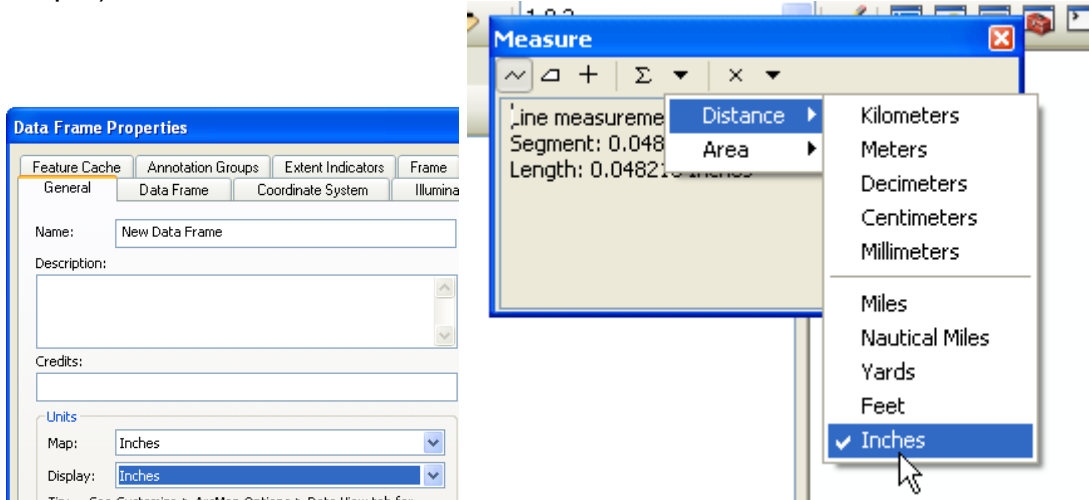
The digital leaf_photo.jpg was originally in 2 inches high and 3 inches wide. Determine the length of the leaf petiole in inches.



Step 1) Georeference leaf by entering corner inches: 0,0 3,0 0,2, 3,2

Link	X Source	Y Source	X Map	Y Map	Residual
1	-0.499797	-452.499371	0.000000	0.000000	0.00007
2	621.478564	0.503407	3.000000	2.000000	0.00007
3	-0.482611	0.520554	0.000000	2.000000	0.00007
4	621.485220	-452.463086	3.000000	0.000000	0.00007

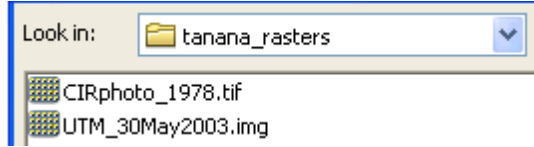
Step 2) Set data frame units to inches and measure tool units to inches



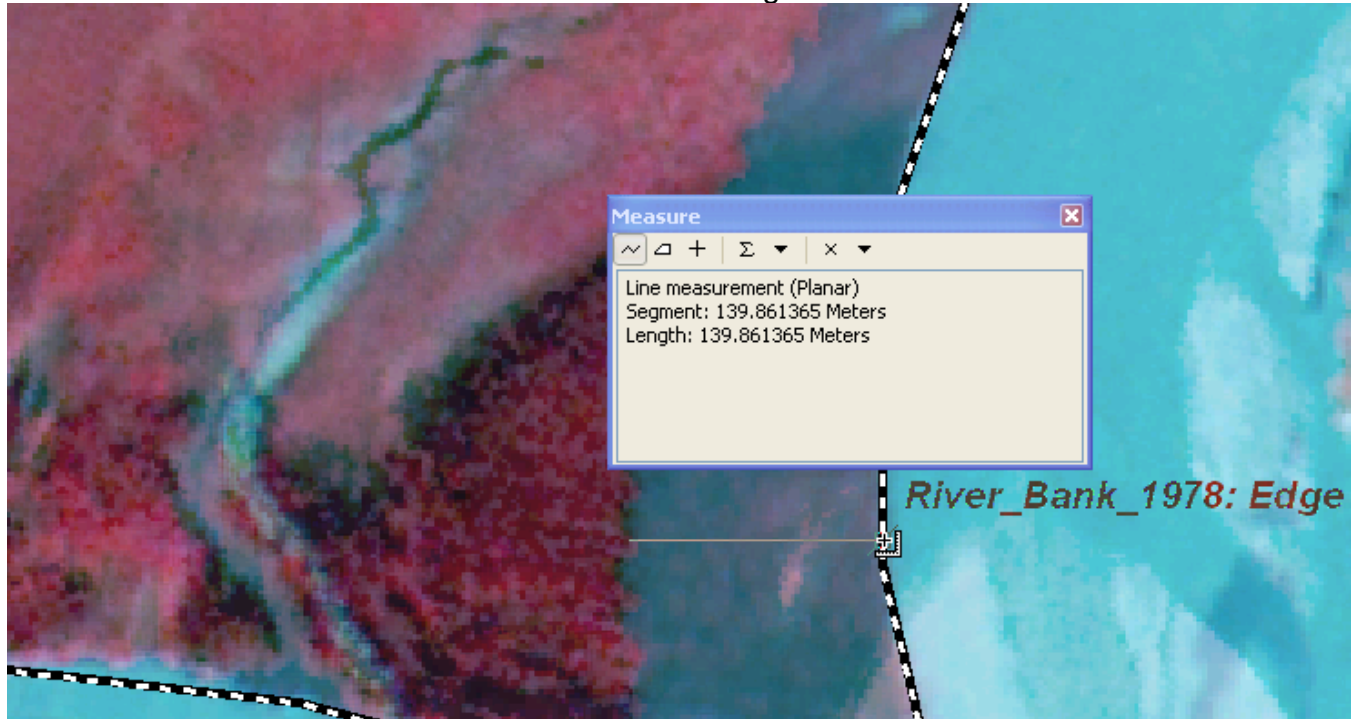
Step 3 Use measure tool to measure petiole length in inches.

Tanana River Bank Erosion

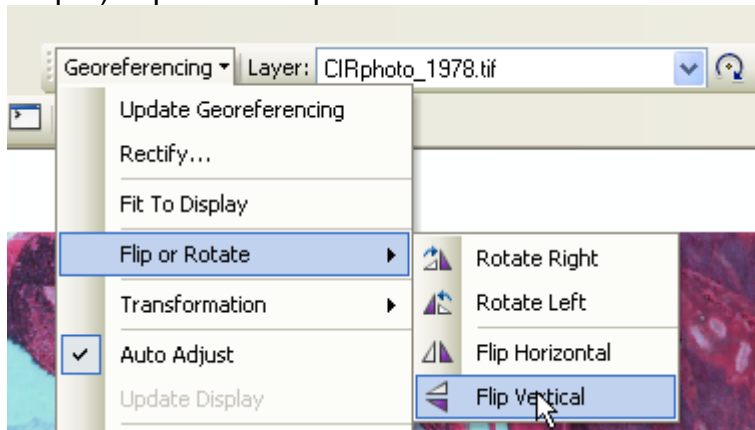
The folder Tanana_Rasters contains two rasters:



Determine the maximum erosion width in meters along the north bank of the Tanana River..



Step 1) Flip the 1978 photo.

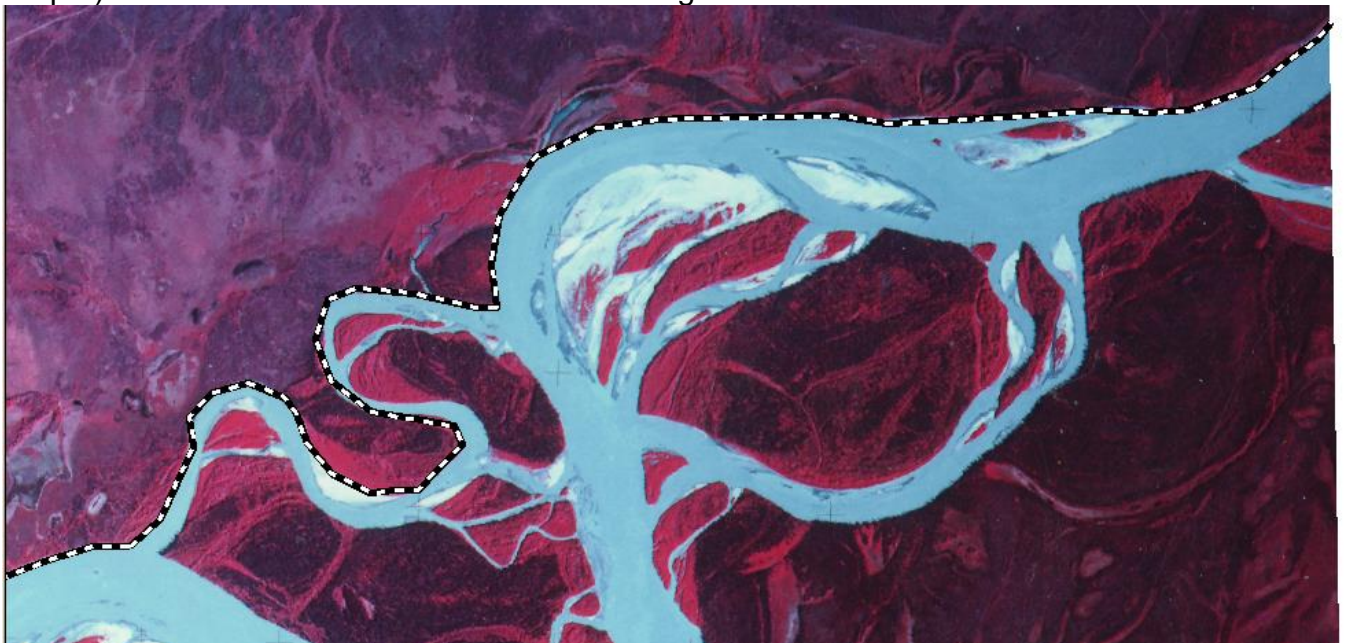


Georeference 1978 photo to 2003 photo.

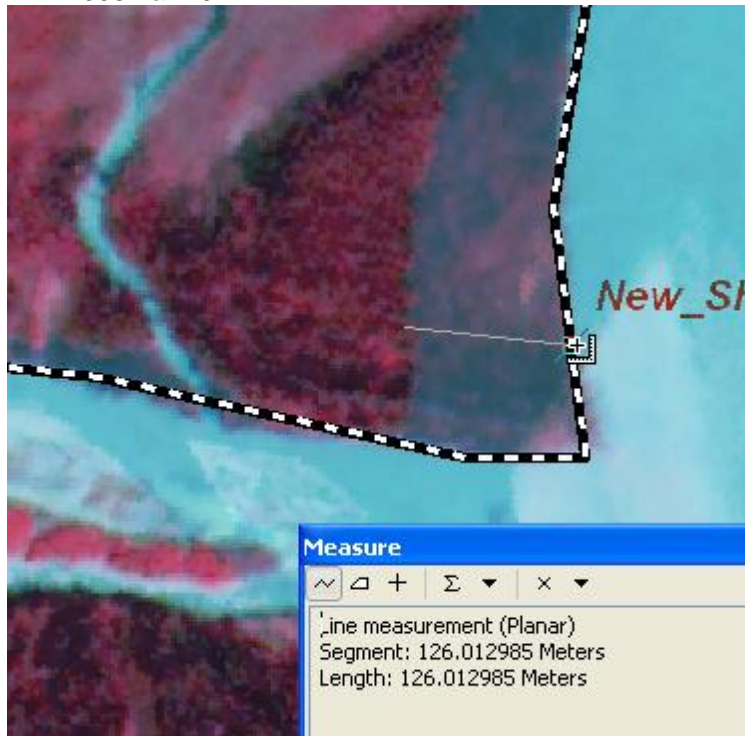


Step 2) Define projection of georeferenced 1978 photo as UTM.

Step 3) Create river bank line feature class along north bank of Tanana.

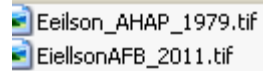


Step 4) Use measure tool and 2003 photo...



Eielson Airforce Base

The folder  EielsonAFB contains two rasters:



What is the area covered on the ground for each pixel in meters for the EielsonAFB_2011.tif raster?

- 1) Georeference EielsonAFB_2011.tif to 1979 UTM raster.
- 2) Look at raster properties..about 8 meter pixels after updating georeferencing...

