

Derived Landsat Imagery

Robinson Lake, Limerick, Hastings County

This is derived imagery using various techniques and programs we have learned over the past 6 months, including clipping, merging, pan sharpening, enhancing and overall presentation of derived Landsat imagery. There are a few main steps to created a pan sharpened image such as this starting from the beginning it requires a Landsat image that is not obstructed by cloud or haze which would distort the image even further not creating a cohesive looking output. once an appropriate image has been selected it is also important to retrieve the DEM for the same area so that elevation and a more 3-D effect can be placed under the imagery. Once all of data has been collected it is time to clip the area in this case it was clipped at about 20 km width to insure a large enough area to derive. By using Catalyst Focus sessions I was able to create a pan sharpened image as well as a F-sharpened image which did not have the effect I wanted so I kept the previously sharpened pan image as the main imagery. After merging the DEM with the Landsat pan sharpened imagery it was time to trans;ate the pix file into a tiff and import into arc pro where each image is overlaid and changed transparency and layer effect to create one final derived imagery incorporating the skills we have learned over the past semesters.



Imagery Composition

Pan sharpened Landsat OLI 8 imagery
Landsat Scene Identifier LC80170292018267LGN00
Date acquired: 2018-09-24
15 cell size Panchromatic, 30 cell size reflective

DEM stretched and merged Digital Elevation
SRTM 1 Arc-second Global
Entity ID SRTMIN44W078V3
date published: 2014-09-23

REL DEM enhancement using catalyst PCI
REL Task



Scale: 1:30,000

Name: NAD 1983 UTM Zone 17N
Datum: North American 1983
Projection: Transverse Mercator

Center: 77°42'30"W 44°54'27"N

Source: USGS Earth Explorer, <https://earthexplorer.usgs.gov/>, Landsat
imagery metadata, <https://earthexplorer.usgs.gov/scene/metadata/full/5e8114f9432a27/LC80170292018267LGN00/>, USGS, SRTM DEM
metadata, <https://earthexplorer.usgs.gov/scene/metadata/full/5e83a3ee1af480c5/SRTMIN44W078V3/>

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