

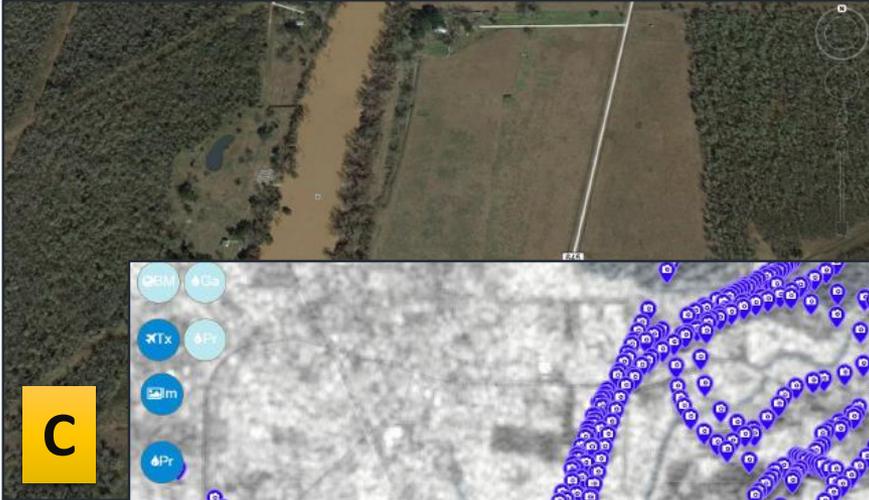
STEM Enhancement in Earth Science 2017 Intern Initiative



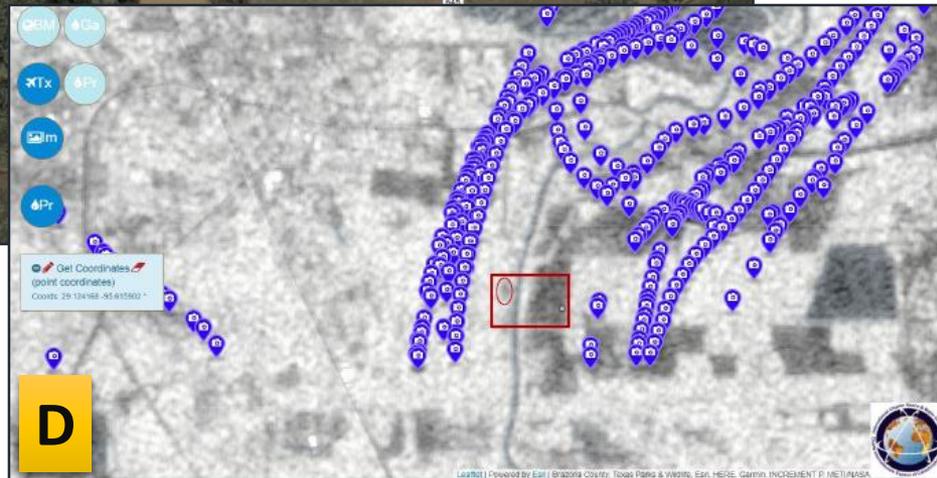
A

Name: S0903A0241C_2515.JPG
Taken of: 29.124705, -95.616471
Date/Time: 2017-09-03 21:46:29
Taken from: 29.128532, -95.628872

B



C



D

When Hurricane Harvey struck the Texas coast in late August, 2017, Valerie Chen, a SEES intern from the Summer 2017 program, contacted her SEES mentor to volunteer her services to the response effort. Using skills developed during her internship, Valerie reviewed dozens of Civil Air Patrol (CAP) photographs (purple markers in D, example photo in A) taken contemporaneously with a JAXA PALSAR-2 SAR image (D) provided to Texas by the International Charter.

Valerie's goal was to illustrate the double bounce effect in flooded woodland (red outlines in D) by comparing SAR images with pre-event Google images (C) and CAP photography (A). She geo-located CAP photos (B) and prepared her examples in an easily accessible format. Valerie's work is used to show emergency responders how to interpret SAR image for flood detection.