1. Introduction
The State of Texas, which is located in the Southern area of the United States, frequently faces tropical cyclones and hurricanes. With over 300 miles of shoreline, the areas that face threats due to these natural disasters are plenty. These threats often cause countless of human and infrastructural damages; which can be observed in the Lower Rio Grande Valley area, as there is an abundance of major bodies of water and a relatively low elevation across the area. This prevalent flood risk leads to the need for identification of major flooding areas, as the U.S. border faces a variety of binational traffic that is susceptible to risks in these scenarios.

2. Purpose
The purpose of this study is to conduct a geospatial analysis, based on watershed flood modeling, to determine the extension of flooding in a variety of scenarios. Furthermore, historical data compiled from a variety of U.S. and Mexican government agencies will be compiled to highlight both international traffic capacity and possible emergency courses of action. This analysis will be used to analyze the severity of binational traffic affected based on the international entry points at risk.

3. Procedure
The study area will focus on the Cameron and Willacy County, as shown in Figure 2. Important features for the analysis conducted are highlighted. Previously developed water models of the Gulf of Mexico and the Laguna Madre in Surface-Water Modeling Systems (SMS); Storm Surge and Flooding Prediction Program ADCIRC; and River Analysis System HEC-RAS; are compiled to determine possible water surface level in a geographical location. These models utilize historical data to simulate new potential storm scenarios. This information is then processed with the use of GIS software ArcMap as shown in Figure 5.

4. Analysis of Results
Based on the previously denoted procedure, maps such as the following will be created to denote the results of the analysis. Flooding analysis will extend to denote binational results.

5. Conclusion
The developed maps can denote the severity of flooding in different area of the coastal south of Texas. The areas that are closer to the Laguna Madre have a higher severity of flooding due to its proximity to the Hurricane entry route and the relatively low elevation. Further refinement of the model will increase the accuracy of the simulation and provide more detailed information on the impact of the storms on the roads and surrounding areas.

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6. References