

DATE: February 28, 2020

TIME: 2:00-3:00pm

LOCATION: FLN 2.03.06



NASA MIRO CAMEE

CENTER FOR ADVANCED MEASUREMENTS IN EXTREME ENVIRONMENTS

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PRESENTS:

Laboratory for Ocean Studies, Department of Geological Sciences

UTSA's NASA MIRO Center for Advanced Measurements in Extreme Environments (CAMEE) features a monthly seminar series where the Center faculty, students, and collaborators provide an overview of ongoing Center research activities. The fourth NASA-CAMEE seminar in this series will be presented by Dr. Mestas' Ocean Studies research group. The goal of this research theme is to use satellite observations of the ocean surface combined with direct observations in the water column to study extreme oceanic conditions. Primary areas of interest are the Gulf of Mexico during the passage of hurricanes and the Polar Oceans. Dr. Mestas' research group is also developing an autonomous buoyancy glider program based on SeaExplorer gliders.

In this team talk, Dr. Mestas' students, Christian Sustayta (MS Geoinformatics), Karen Mendiondo (MS Geology), and Rodolfo Fernandez (BS Geology), will present an overview of some of their research activities. First, they will explain how autonomous buoyancy gliders are prepared, deployed, piloted, and recovered, and what type of observations are typically gathered by gliders. Second, they will describe UTSA's SeaExplorer glider and its glider-mounted Acoustic Doppler Current Profiler (ADCP) sensor, ADCP data processing, and applications of glider current velocity measurements. Finally, they will show how satellite observations of sea surface salinity can be combined with in-situ glider observations of upper-ocean salinity to monitor freshening in the Gulf of Mexico following Hurricane Harvey (August 2017) and along the US East Coast following Hurricane Dorian (August-September 2019).

More details of NASA CAMEE: <u>www.utsa.edu/NASA-CAMEE/</u> More details of Dr. Mestas' Research: <u>http://albertomestas.com/</u>