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**CENTER FOR DISASTER RISK POLICY RECEIVES NATIONAL SCIENCE FOUNDATION GRANT TO STUDY THE USE OF ROBOTS AND REMOTE SENSING IN RESPONSE TO THE SURFSIDE CONDOMINIUM COLLAPSE**

**TALLAHASSEE, FLORIDA, August 16<sup>th</sup>, 2021** – The Center for Disaster Risk Policy (CDRP) at Florida State University received a National Science Foundation grant to study the use of remote sensing and robotic technology in the wake of the catastrophic collapse of the Champlain Tower South in Surfside, Florida. This grant, in the amount of \$72,332, is part of a cooperative research proposal submitted by Florida State, Texas A&M University, and Carnegie Mellon University and will help define the use of robots in disasters for years to come.

CDRP was part of the initial response to the Champlain Tower collapse, and spent 25 days on site working as part of Florida's Urban Search and Rescue (US&R) efforts. Center personnel partnered with Miami-Dade Fire Rescue, the Miami-Dade Police Department, the City of Miami Fire Department, the Federal Emergency Management Agency (FEMA), the State Emergency Response Team (SERT), and the National Institute of Standards and Technology (NIST) to build multiple two-dimensional maps and three-dimensional models per day. These products were created using small unmanned aircraft systems (sUAS), or 'drones', which took hundreds of still photos of the collapse site every few hours. The workflow pioneered by CDRP and FEMA on this event created rapid, accurate, and actionable imagery that was utilized on the collapse pile to locate and tag key evidence and other material during search and recovery operations.

The project team from FSU, Texas A&M, and Carnegie Mellon will utilize the sUAS imagery and data collected in Surfside to analyze sUAS performance and streamline the workflow and processes to be used on future catastrophic events. The data and imagery will be assembled into digital 'slices' – time stamped cross sections of the collapse – to visualize and determine best practices for the use of robots on the ground and in the air to assist in structural collapse scenarios. As the data is processed and scrubbed of any personally identifiable information, the complete data set will be published for future researchers to access and use. This will be especially useful to the structural and robotics engineering communities, and lay a path for the possibility of technology transfer and ongoing research. At the conclusion of the project, the research team will host a workshop to discuss and disseminate data, findings, and next steps.

The Principal Investigator for this Project is David Merrick, CDRP Director. Additional FSU key personnel will include Jarrett Broder, Research Faculty II; Laura Hart, PhD student in the Askew School of Public Administration; Austin Bush, PhD student in Geography; and Justin Adams, Researcher at the Center.

The Center for Disaster Risk Policy (CDRP) is an applied research center in the College of Social Science and Public Policy. Founded in 1976, CDRP focuses on creating best practices and applied solutions to a variety of public policy issues. Since 1997 the center has focused exclusively on disaster management and homeland security, and currently includes eight associated faculty and eight staff. CDRP provides solutions related to planning, training and exercising, public outreach and crisis communication, disaster intelligence, and remote sensing. The Center can be found on the web at <http://cdrp.net>.

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