USGS CMSC FACS OVERVIEW LOG
ACTIVITY ID: 10BIM05

TOPIC	INFORMATION
USGS ACTIVITY ID	10BIM05
OTHER ID (IF ANY)	
ORGANIZATION(S)/PROGRAM	U.S. Geological Survey, St. Petersburg Coastal and Marine Science Center
PROJECT/THEME	Addendum to MsCIP (Mississippi Coastal Improvement Project (MsCIP) / Coastal Change and Transport)
AREA OF OPERATION	Cat Island, MS
PRINCIPAL INVESTIGATOR	Jack Kindinger, Jennifer Miselis
INFORMATION SPECIALIST(S)	BJ Reynolds
ACTIVITY TYPE	Seafloor mapping, single-beam bathymetry
SCIENTIFIC PURPOSE/GOALS	We propose to develop a detailed geochronology of the formation and morphologic modifications of Cat Island. By identifying historical conditions, processes (natural and anthropogenic if relevant) and barrier response, the impact of future destructive events including storms and rising sea level can be inferred. Questions include: • Which model of barrier island formation does Cat Island best represent (emergent shoal, aggradational)? • What is the underlying geometry and geologic composition of the barrier and surroundings, and how does that contribute to its stability (resistance to westward migration)? • What is the timing of the two barrier segments and can that help identify: - Sediment provenance when related to shifting Holocene depocenters? - Prevailing regional climate conditions and rates of sea-level rise? • How does Cat Island fit in with the surrounding geology of the Gulf of Mexico; does it represent a transition point between two areas (Chandeleurs and other Mississippi barriers)?

	• Based on its evolution, what can we infer about its future response to prevailing physical processes?
PLATFORM	*R/V Streeterville*
STARTING DATE	September 28, 2010
STARTING PORT	Biloxi, Mississippi
ENDING DATE	October 2, 2010
ENDING PORT	Biloxi, Mississippi
EQUIPMENT USED	HYPACK for ship navigation, Choke Ring Antenna, Ashtech Z-Xtreme DGPS
INFORMATION TO BE DERIVED	Single-beam bathymetry data (x, y, z)
SUMMARY OF ACTIVITY AND DATA GATHERED	Single-beam lines (106)
NOTES	Boat staff – B.J. Reynolds, Carl Taylor Digital 10BIM05 FACS logs were generated by Noreen Buster using handwritten logbook and personal accounts of crew members