

Overview Field Activity Collections System (FACS) Log

Topic	Information
USGS Activity ID i.e. YYPRJ## *	04CCH03
Other ID (if any)	XSTORMS.h20040917
Organization(s)/Program	U.S. Geological Survey, St. Petersburg Coastal and Marine Science Center
Project/Theme	Extreme Storm Coastal Change Hazards
Area of Operation	Crawfordville, Florida, to Petit Bois Island, Mississippi
Principal Investigator(s)	D. Krohn, K.L.M. Morgan, R. Peterson, and P. Thompson of the USGS in St. Petersburg, Florida, and Mark Frame of Bay Air Charters, Inc.
Information Specialist(s)	R. Peterson, P. Thompson
Activity Type	Oblique Aerial Photo and Video Survey
Scientific Purpose/Goals	Post-Hurricane Ivan survey to document the storm impact on the coast.
Platform	Piper Navajo Chieftain, tail number N2KK
Starting Date	September 17, 2004
Starting Port/Location	St. Petersburg, Florida
Ending Date	September 17, 2004
Ending Port/Location	St. Petersburg, Florida
Equipment Used	Two Nikon F3 cameras, Sony DCR-VX1000 Handycam Video Camera, Compix Video Titler, Trimble Centurion GPS, Rockwell Collins PLGR GPS. Nikon D1X, written to internal cards.
Information to be Derived (e.g., Grain Size, Depth to Basement)	Analysis of coastal change due to extreme storms
Summary of Activity and Data Gathered	8 mini DV tapes burned onto 4 DVDs; 87 rolls of film (approximately 3,381 slides). There is no roll 38, film miss numbered during flight.
Notes (include staff, shop time etc.)	<p>35-millimeter analog slide positive digitally scanned by J. Subino.</p> <p>Two separate records of flight navigation were collected during the survey. The first was a continuous ASCII text file from the PLGR that recorded only latitudes and longitudes for the entire flight at 30-second intervals. No time values were recorded by the PLGR. The second navigation record came from the Trimble Centurion GPS. It recorded subtitles onto the video, which were taken continuously throughout the survey. The video subtitles recorded latitude, longitude, and time in hours, minutes, and seconds using a Compix Titler unit. Latitude, longitude, and time were manually extracted from the video every 5 minutes, and these values were matched to the latitude and longitude in the PLGR GPS file. Time was interpolated between these 5-minute fixes using Excel to produce a 1-second time record for the entire flight. Additional adjustments may have been made to those positions to compensate for pauses in image collection, for example at inlets and between islands. The Nikon MF-14 camera Data Back imprints each photograph as it is taken on the lower right corner of the slide film, adding the day, hour, and minute (seconds are not recorded). These values were read and entered from the photographs into an Excel spreadsheet. It is assumed that the photographs were taken at a constant rate during any given minute of flight and seconds assigned to each photograph, accordingly. For example, if 15 photographs were taken during minute 19:00, we assume that a picture was taken every 4 seconds. The photographs were assigned the time values 19:00:00, 19:00:04, 19:00:08, and so on. The time values were then cross-referenced to the interpreted latitude and longitude values discussed above to assign approximate positions to each photograph. As a result, it should be noted that the latitude, longitude, and time assigned to each photograph is an estimate of the aircraft/camera position. Corrections to estimated positions were made by K.L.M. Morgan in March 2015.</p>