

USGS CMG FACS Overview Log
Activity ID: 01RCE02

Topic	Information
USGS Activity ID	01RCE02 (River Contaminant Evaluation)
Other ID (if any)	
Organization	USGS
Project	Evaluating basin/shelf effects in the delivery of sediment-hosted contaminants in the lower Atchafalaya and Mississippi rivers.
Area of Operation	Mississippi Delta (South Pass & Garden Bay, Atchafalaya River, Atchafalaya Delta)
Chief Scientist(s)	James Flocks
Information Specialist(s)	Gina Peery
Activity Type	Hi-Res Seismic, Chirp, Sidescan & Vibracores
Scientific Purpose/Goals	To evaluate the storage and transport of particle reactive, environmentally relevant contaminants through the Mississippi River and Atchafalaya River delta complexes to the near-shore Gulf of Mexico.
Platform	R/V G. K. Gilbert
Starting Date	April 25, 2001, JD115
Starting Port	Venice, Louisiana
Ending Date	May 5, 2001, JD125
Ending Port	Morgan City, Louisiana
Equipment Used	Boomer Chirp Sidescan Vibracore
Information to be Derived (e.g., Grain Size, Depth to Basement)	Geophysical data are being used to determine sediment distribution and thickness, and to locate sample sites. Sediment cores will be used to evaluate the distribution and concentrations of key contaminants.
Summary of Activity and Data Gathered	Collected 10 single-channel boomer seismic lines along with 6 chirp lines in the Mississippi River delta. Collected 5 boomer seismic-lines along with 5 chirp lines in the Atchafalaya River delta. Also, 7 Vibracore samples were taken from the Atchafalaya delta.
Notes	

USGS CMG FACS Equipment Log
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Equipment System	Equipment Type	Equipment Code	Equipment Brand	Equipment Model	Equipment Media	Comments
Applied Acoustics	Seismic	BOOM	Applied Acoustics	CSP300	Digital	AA200 plate, using Elics Delph Seismic V2.10, 100Joules
Innovative Transducer Inc.	Hydrophone	HPHON	ITI	ST-5	Digital	6m, phones 3,4,5,6 summed
EdgeTech	Chirp	CHIRP	Edge Tech	X-Star	Pap/Dig	using SP424 tow fish, running Elics FSSB software V2.03
Marine Sonics	Side Scan	SS	Marine Sonics	1200 kHz	Digital	using Seascan software V2.10
Trimble - Centurian	Navigation	GPS	Trimble	Centurian (P-code Military Receiver)	Digital	
Hy-Pack	Navigation Software	NAV	Hy-Pack	V14.8	Digital	output is supplied to all systems
OYO 608	Plotter	OYO	OYO	608	Paper	plotting chirp
Nearspace	Precision Depth Recorder	PDR	Nearspace	448	Digital	Depth being saved by Hy-Pack
Rosfelder P3	Electric Vibracore	VC	Rosfelder	P3	3" pipe	

USGS CMG FACS Crew Log
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Name	Responsibility	Affiliation
Jim Flocks	Chief Scientist	USGS - St. Petersburg
Dana Wiese	Electronics Technician	USGS - St. Petersburg
Gina Peery	Geologist/FACS Coordinator	USGS - St. Petersburg
Dave Bennett	Boat Captain (4/25/01 - 4/28/01)	Eckerd College
Keith Ludwig	Boat Captain (4/29/01 - 5/6/01)	USGS - St. Petersburg
Greg Berman	Crew Hand	USGS - St. Petersburg

USGS CMG FACS Operation Log
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Equipment Code	ID	Start Day	Start Hour	Start Min	Start Comment	End Day	End Hour	End Min	End Comment	Depth (meters)
BOOM	01B001	116	14	09	500ms shot, 100ms save, 100 Joules	116	17	23	using Elics Nav Driver UTM401_1.pln	3
BOOM	01B002	116	17	57	using cent_rmc.pln driver (No UTM or JD in record)	116	20	41		3
BOOM	01B003	116	20	43		116	21	42		3
BOOM	01B004	117	14	31	500ms shot, 100ms save, 100 Joules	117	17	08		3
SS		117	14	17		117	17	10		
BOOM	01B005	118	14	44	500ms shot, 100ms save, 100 Joules *calibrated seismic @ 14:58	118	16	17	using cent_rmc.pln, saving depth on Hy-Pack	2.44
CHIRP	01C001	118	14	37	248ms shot, 49ms save: using Elics FSSB V2.03	118	16	17		
SS		118	16	35		118	19	02	new line every 1000 scans	4.72 varying
CHIRP	01C002	118	16	39		118	19	14		4.72
BOOM	01B006	118	16	41		118	19	14		~4.88
CHIRP	01C003	118	19	52		118	21	23		~7.92
BOOM	01B007	118	19	53		118	21	23		~7.92
BOOM	01B008	120	16	59	500ms shot, 100ms save, 100 Joules	120	18	23		
CHIRP	01C004	120	16	59		120	18	25		
SS		120	17	01	600 kHz tow-fish	120	18	23	saves every 1000 scans	
BOOM	01B009	120	18	24		120	19	15	depth varies	6.71
CHIRP	01C005	120	18	25		120	19	16		6.71
BOOM	01B010	120	19	15		120	20	38		6.71
CHIRP	01C006	120	19	16		120	20	38		6.71
BOOM	01B011	122	17	08	Atchafalaya River Delta	122	19	21		1.5 – 2.44
CHIRP	01C007	122	17	08	recalibrated @19:08	122	19	21		1.5 – 2.44
SS		122	17	05		122	19	21	saves every 1000 scans	1.5 – 2.44
BOOM	01B012	122	19	21		122	20	05		1.5 – 2.44
CHIRP	01C008	122	19	21		122	20	05		1.5 – 2.44
BOOM	01B013	122	21	00		122	21	39		1.5 – 2.44
CHIRP	01C009	122	21	00		122	21	39		1.5 – 2.44
SS		122	21	00		122	21	39		1.5 – 2.44
CHIRP	01C010	123	16	28	125ms shot, 33ms acquire	123	17	42	ping=8.14Hz, sample 50kHz	3
BOOM	01B014	123	16	28	recalibrated @ 16:32	123	17	42		3
SS		123	16	28	1200kHz tow-fish	123	17	42		3
BOOM	01B015	123	18	27		123	21	05		8.32
CHIRP	01C011	123	18	24		123	21	08		8.32
SS		123	18	27		123	21	05		8.32