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Louisiana Barrier Island Comprehensive Monitoring Program (BICM) Volume 1: Barrier Shoreline Post-Storm Assessment Part 1: 2005 Post Hurricanes Katrina and Rita Photography

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LOUISIANA BARRIER ISLAND COMPREHENSIVE MONITORING PROGRAM (BICM)
Volume1: Barrier Shoreline Post-Storm Assessment

Part 1: 2005 Post Hurricanes Katrina and Rita Photography

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**US Army Corps
of Engineers®**

Louisiana Barrier Island Comprehensive Monitoring Program (BICM)

Volume 1: Barrier Shoreline Post Storm Assessment

Part 1: 2005 Post Hurricanes Katrina and Rita Photography

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Introduction

On August 29, 2005, Hurricane Katrina made landfall as Category 3 near the Pearl River, which marks the boundary between Mississippi and Louisiana, and affected the eastern side of south Louisiana, including New Orleans. It also had devastating effects on coastal Mississippi. On September 24, Hurricane Rita made landfall as a Category 3 near Sabine Pass, Texas, affecting the western side of coastal Louisiana.

The Barrier Shoreline Post Storm Assessment consists of 5 Parts:

- Part 1: 2005 Post Hurricanes Katrina and Rita Photography
- Part 2: 2006/2007 Aerial Survey Photography
- Part 3: 2005 – 2006/2007 Photo-Pairs
- Part 4: Historic Photo-Pairs/Time Series
- Part 5: 2006/2007 Aerial Video Survey

The 2005 Post Hurricanes Katrina and Rita photography was acquired as a photo-survey and not part of a video survey. For quick response, the imagery was acquired from a small plane and was flown in the reverse direction of a standard video survey to maintain the standard camera angle when shooting past the wing supports of the plane. Therefore, the images are listed in reverse order to be consistent with historical files. The dates and areas of acquisition were September 28, 2005 - Pt au Fer Island (9:05:33 CDT) to Sabine Pass (10:52:40 CDT), and September 30, 2005 – Chandeleur Islands (9:42:04 CDT) to the Isle Dernieres (11:25:25 CDT). Photos were taken by a Canon PowerShot A75 digital camera. Jpegs created by this camera have a file size just under 1 MB with dimensions averaging 2048x1536 pixels at 180 pixels/inch which corresponds roughly to 350dpi at a 4x6 inch size.

Funding for the acquisition of 2005 post-Hurricane Katrina/Rita imagery was provided by the U.S. Geological Survey Coastal & Marine Geology Program in St. Petersburg, FL. Funding to integrate these images into BICM was provided by LCA Science & Technology Program, a partnership between the LDNR and the US Army Corps of Engineers (USACE), through LDNR Interagency Agreement No. 2512-06-06.

Part 1 includes:

1) Report:

- a. location diagrams for the 2005 photography created by Media Mapper software using USGS digital topos as background (figures 6-25)
- b. tables of location information for each frame arranged by Region and BICM segment
- c. water level data for time of acquisition

2) 2 CDs including:

- a. 2005 digital photography grouped by date of acquisition, BICM region and BICM segment.
- b. excel file of location information for each frame (metadata).
- c. All report files in Word and pdf.

Water level

Water levels at the time of acquisition (4-5 days post-Hurricane Rita) were normal to slightly above normal for the time period, although recent hurricane effects were obvious along most of the coast. Table 1 lists the mean range, spring range, and mean tide level for various stations along the Louisiana coastline and is modified from the NOAA website: <http://tidesandcurrents.noaa.gov/tides07/tab2ec4.html#108>

Table 1. Normal tidal ranges for coastal Louisiana

Station	Latitude	Longitude	Mean Range (ft)	Spring Range (ft)	Mean Tide Level (ft)
Bayou BonFouca, Route 433	30° 16.3'	89° 47.6'	0.53	0.53	0.26
Tchefuncta River, Lake Pontchartrain	30° 22.7'	90° 09.6'	0.57	0.57	0.28
New Canal USCG station, Lake Pontchartrain	30° 01.6'	90° 06.8'	0.51	0.52	0.26
Chef Menteur, Chef Menteur Pass	30° 03.9'	89° 48.0'	0.97	1.06	0.56
Michoud Substation, ICWW	30° 00.4'	89° 56.2'	1.23	1.39	0.70
Shell Beach, Lake Borgne	29° 52.1'	89° 40.4'	1.28	1.41	0.72
Grand Pass	30° 07.6'	89° 13.3'	1.14	1.47	0.73
Chandeleur Light	30° 03'	88° 52'	--	1.2	0.6
Comfort Island	29° 49.4'	89° 16.2'	1.45	1.57	0.80
Bay Gardene	29° 35.9'	89° 37.1'	1.34	1.44	0.75
Breton Islands	29° 29.6'	89° 10.4'	1.37	1.37	0.69
Jack Bay	29° 22.0'	89° 20.7'	--	1.2	0.6
Grand Bay	29° 23.1'	89° 22.8'	1.25	1.34	0.67
Lonesome Bayou (Thomasin)	29° 14'	89° 03'	--	1.1	0.5
Mississippi River					
North Pass, Pass a l'Outre	29° 12.3'	89° 02.2'	1.08	1.10	0.55
Southeast Pass	29° 07.0'	89° 02.7'	--	1.2	0.6
SOUTH PASS	28° 59.4'	89° 08.4'	1.18	1.22	0.61
Port Eads, South Pass	29° 00.9'	89° 09.6'	--	1.1	0.5
Southwest Pass	28° 55.9'	89° 25.7'	--	1.3	0.6
Joseph Bayou	29° 03.5'	89° 16.3'	--	1.4	0.7
Paris Road Bridge	30° 00'	89° 56'	--	1.1	0.6

Empire Jetty	29° 15.0' 89° 36.5'	--	1.3	0.7
Bastian Island	29° 17.2' 89° 39.8'	--	1.2	0.6
Quatre Bayous Pass	29° 18.6' 89° 51.2'	--	1.3	0.6
Barataria Pass	29° 16' 89° 57'	--	1.2	0.6
Barataria Bay				
EAST POINT, GRAND ISLE	29° 15.8' 89° 57.4'	1.04	1.06	0.53
Bayou Rigaud, Grand Isle	29° 16' 89° 58'	--	1.0	0.5
Independence Island	29° 18.6' 89° 56.3'	--	0.9	0.4
Manilla	29° 25.6' 89° 58.6'	--	1.0	0.5
Caminada Pass (bridge)	29° 12.6' 90° 02.4'	0.99	0.99	0.50
Timbalier Island, Timbalier Bay	29° 05' 90° 32'	--	1.2	0.6
Pelican Islands, Timbalier Bay	29° 07.7' 90° 25.4'	--	1.2	0.6
Wine Island, Terrebonne Bay	29° 04.7' 90° 37.1'	--	1.3	0.6
Cocodrie, Terrebonne Bay	29° 14.7' 90° 39.7'	1.01	1.05	0.53
Caillou Boca	29° 03.8' 90° 48.4'	--	1.4	0.7
Raccoon Point, Caillou Bay	29° 03.5' 90° 57.7'	--	1.7	0.8
Ship Shoal Light	28° 55' 91° 04'	--	1.6	0.8
Atchafalaya Bay				
Eugene Island	29° 22' 91° 23'	--	1.9	1.0
Point Au Fer	29° 20' 91° 21'	--	2.0	1.0
Shell Island	29° 28' 91° 18'	--	1.5	0.7
Point Chevreuil	29° 31' 91° 33'	--	1.5	0.8
Rabbit Island, 5 miles south of	29° 25' 91° 36'	--	2.0	1.0
South Point, Marsh Island	29° 29' 91° 46'	--	1.8	0.9
Lighthouse Point	29° 31' 92° 03'	--	2.0	1.0
Cote Blanche Island, West Cote Blanche Bay	29° 44' 91° 43'	--	1.4	0.7
Southwest Pass, Vermilion Bay	29° 35' 92° 02'	--	1.6	0.8
Weeks Bay, Vermilion Bay	29° 48' 91° 50'	--	1.5	0.7
Mermentau River entrance	29° 45' 93° 06'	--	2.5	1.2
Calcasieu Pass, Lighthouse wharf	29° 47' 93° 21'	--	2.0	1.0

Figures 1-5 are graphs of the predicted (blue line) and observed (red line) tide levels during the time period September 20-30, 2005 bracketing the landfall of Rita and the acquisition of photography. (NOAA at <http://tidesandcurrents.noaa.gov/>.) Few of the stations in the previous list provided data along the coast for the time periods needed, and are highlighted in bold red. The stations used were:

Sabine Pass North #8778094;
Calcasieu Pass, East Jetty #8768094;
Grand Isle, East Point #8761724;
Pilots Station East, Southwest Pass #8760922;
Gulfport Harbor #8745557; and

The data obtained indicate that the tide levels had returned to slightly above normal at the time of photo acquisition.

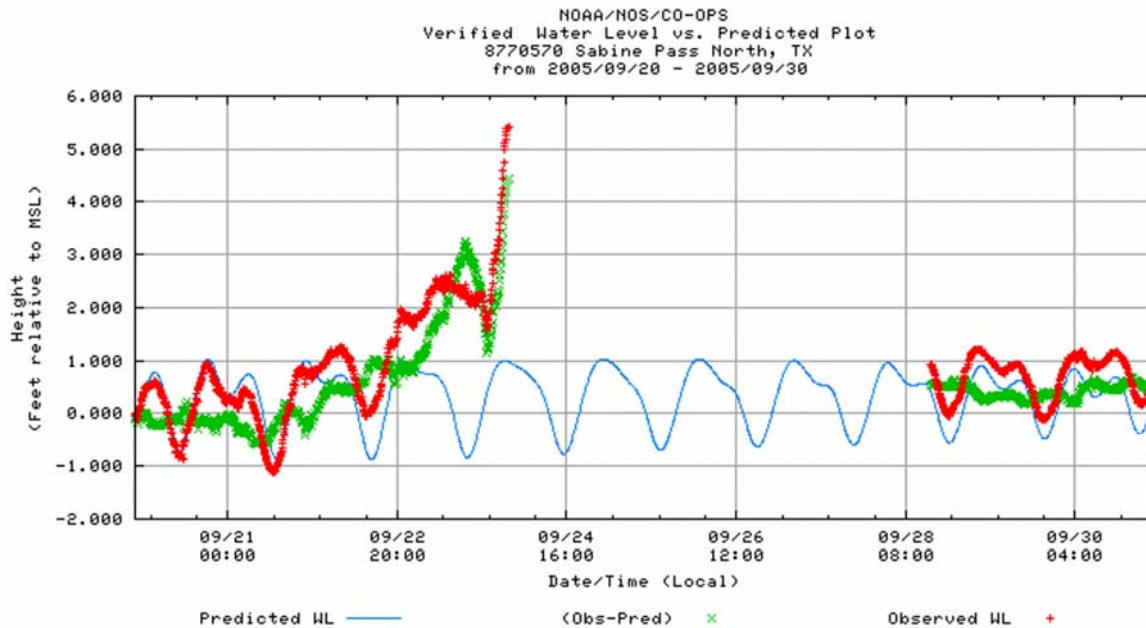


Figure 1. Graph of the tide levels at Sabine Pass North for September 20-30, 2005, bracketing the landfall of Hurricane Rita on 9/24 and photo acquisition on 9/28 showing the predicted and observed data for the vicinity of BICM regions Western and Eastern Chenier Plain. (<http://tidesandcurrents.noaa.gov/data>).

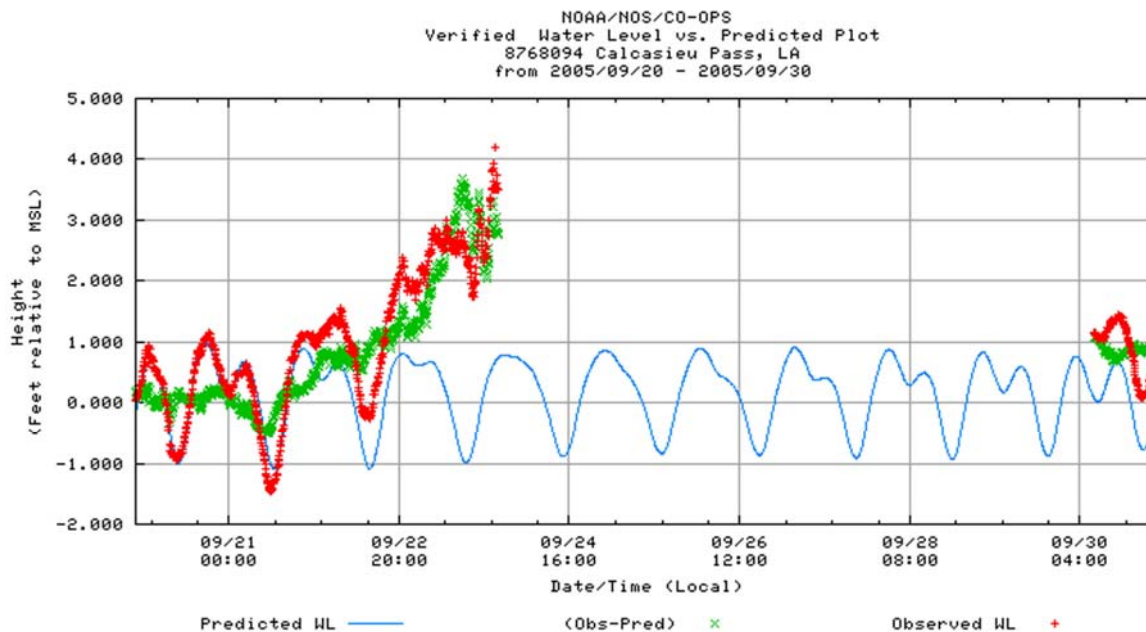


Figure 2. Graph of the tide levels at Calcasieu Pass East Jetty for September 20-30, 2005, bracketing the landfall of Hurricane Rita on 9/24 and photo acquisition on 9/28 showing the predicted and observed data for the vicinity of BICM regions Western and Eastern Chenier Plain. (<http://tidesandcurrents.noaa.gov/data>).

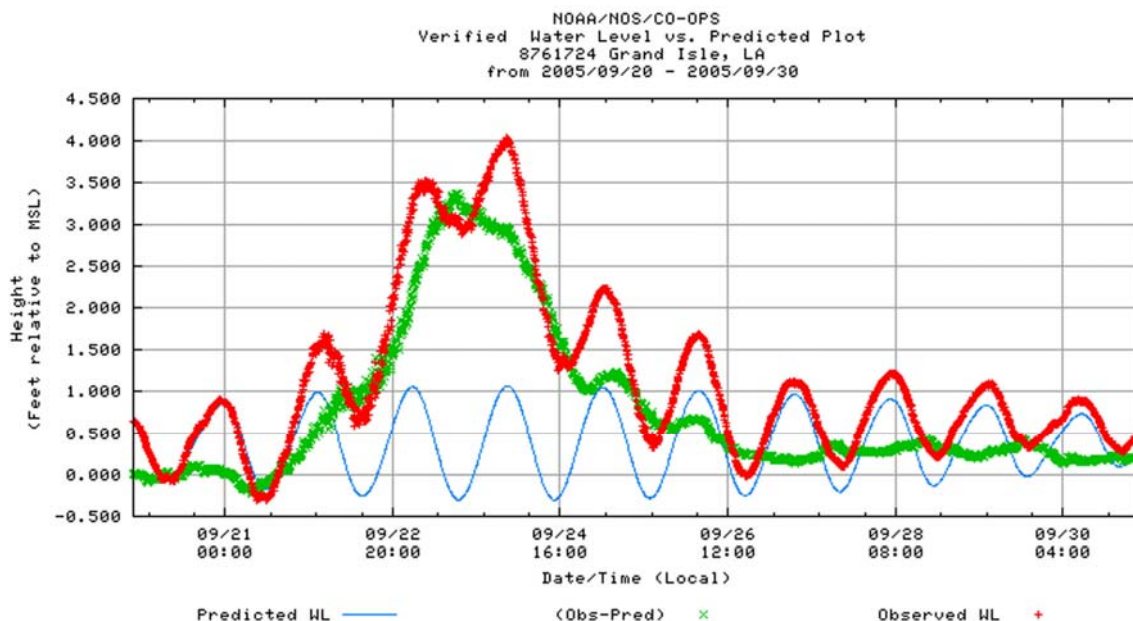


Figure 3. Graph of the tide levels at Grand Isle, East Point for September 20-30, 2005, bracketing the landfall of Hurricane Rita on 9/24 and photo acquisition on 9/28 showing the predicted and observed data for the vicinity of BICM regions Teche Delta and Lafourche Delta. (<http://tidesandcurrents.noaa.gov>).

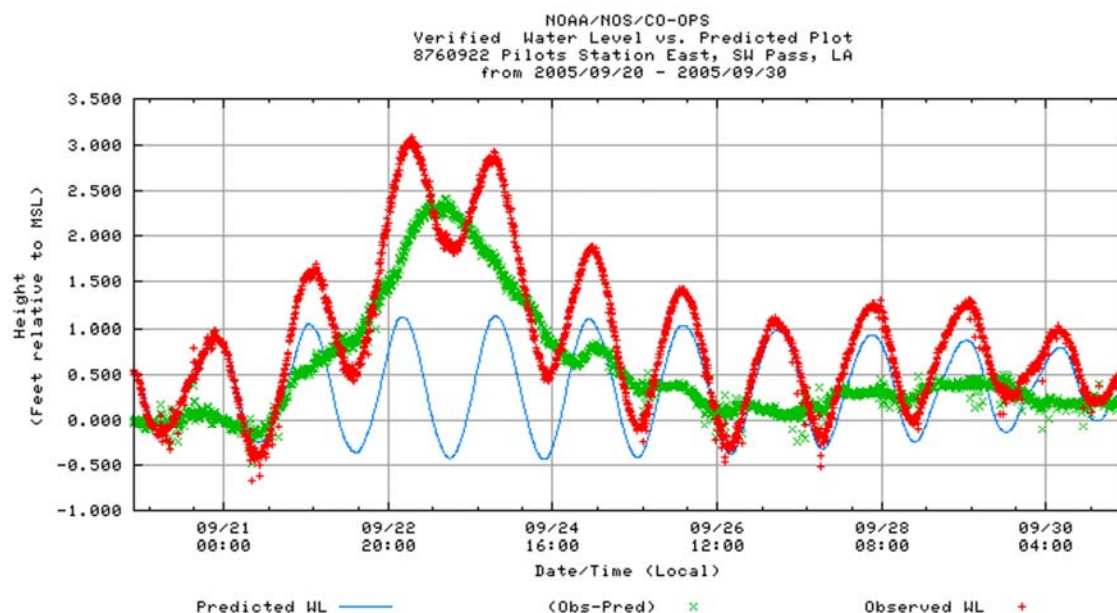


Figure 4. Graph of the tide levels at Pilots Station East, Southwest Pass for September 20-30, 2005, bracketing the landfall of Hurricane Rita on 9/24 and photo acquisition on 9/28 showing the predicted and observed data for the vicinity of BICM region Chandeleur Islands. (<http://tidesandcurrents.noaa.gov>).

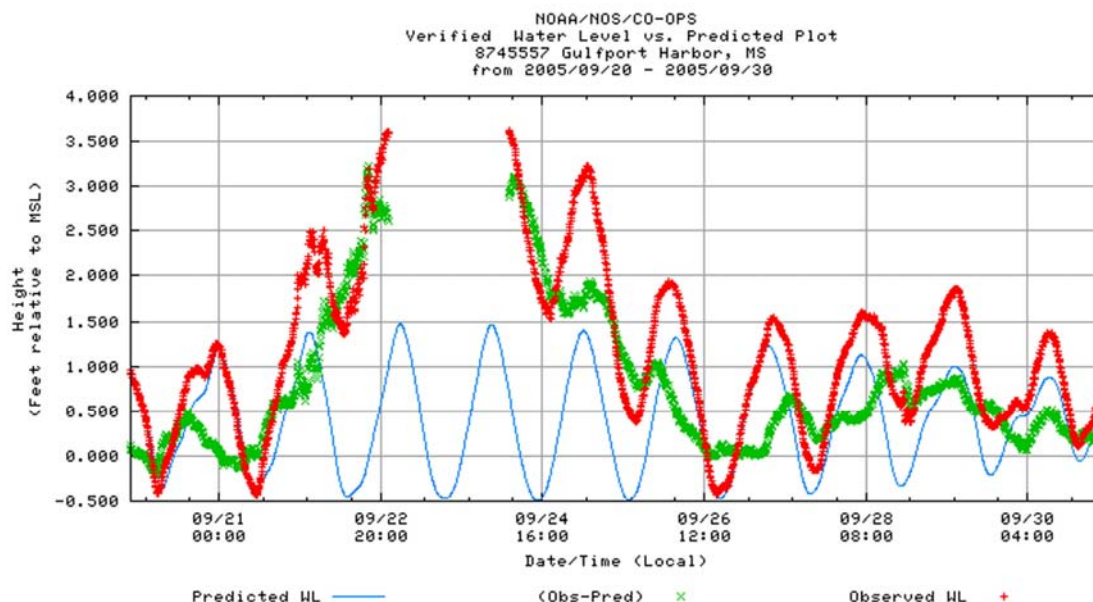


Figure 5. Graph of the tide levels at Gulfport, MS for September 20-30, 2005, bracketing the landfall of Hurricane Rita on 9/24 and photo acquisition on 9/30 showing the predicted and observed data for the vicinity of BICM region Chandeleur Islands. (<http://tidesandcurrents.noaa.gov>).

Location Diagrams for the 2005 Post-Hurricane Katrina/Rita Photography

Since no GPS data was collected during this flight, the locations and camera angle of each photo frame was established by visually matching the scene with the 2006/2007 Aerial Video Survey (AVS) imagery, manually creating a feature marker for each frame in Media Mapper, and transferring the GPS data for each frame to an excel file. Media Mapper provided location data by latitude/longitude, so these numbers were converted to UTM Zone 15 North, NAD 83 by Corpscon6, a conversion software. The camera angle was interpreted as 90 degrees counter-clockwise from the trackline since the camera was aimed roughly perpendicular to the shoreline. Some of the images could not be accurately located by this method because of camera angle or flight path, so the location of these photos was estimated between the frames on either side, or left blank.

BICM divides coastal Louisiana into eight regions (Figure 6). The 2005 post Hurricanes Katrina/Rita photography was acquired along the outer coast in the following seven regions:

- Western Chenier Plain
- Eastern Chenier Plain
- Acadiana Bays
- Teche Delta
- Lafourche Delta
- Modern Delta
- Chandeleur Islands

The data tables and associated excel file are organized by BICM region (Figure 6) with the images for each region on a different worksheet or separate table. Additionally, the BICM segment breaks are indicated on the tables by BICM segment number and title. To be consistent with other data, all images are listed west to east so the 2005 images are in reverse order. The data listed in the tables are location description, frame number, camera angle, latitude, longitude, UTM Northing, UTM Easting,

USGS digital maps were used as a background for the figures, and were screen grabs from the Media Mapper system used with the video in Part 5. The figures have been annotated in PhotoShop with BICM segment numbers and names, and a few image numbers have been added for reference.

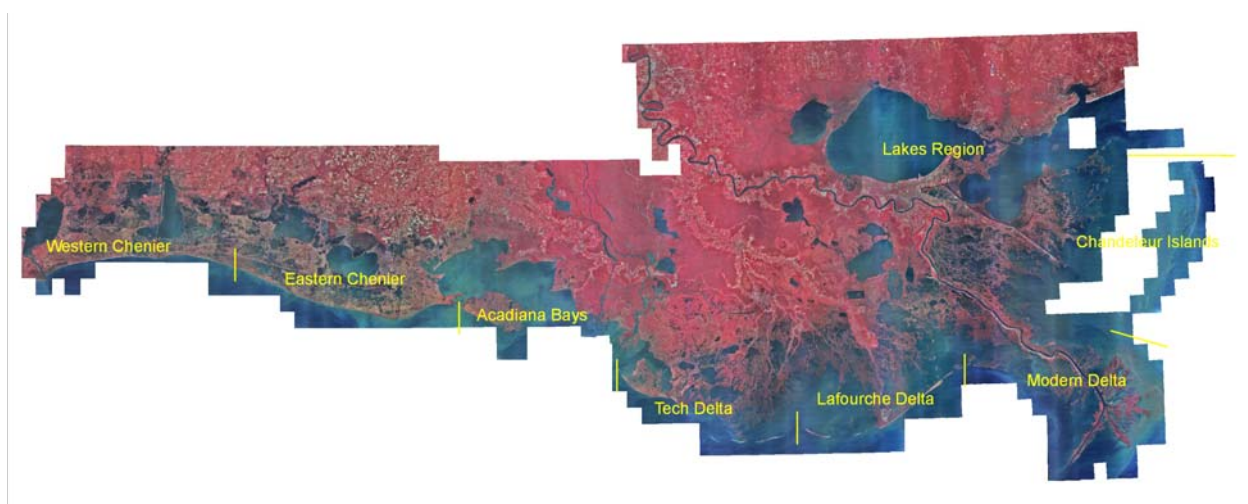


Figure 6. BICM divides coastal Louisiana into eight regions. The 2005 post-Hurricane Katrina/Rita photography was acquired along the outer coast.

Locations of each image are indicated on the following diagrams (Figures 7-26) by a purple marker. Map divisions were somewhat based on BICM segments where possible, covering 14-18 miles. BICM segments are approximated with an orange line, and a few images are labeled by the 4-digit image file-number for reference. The data tables that follow the figures give more specific location information.

Western Chenier Plain

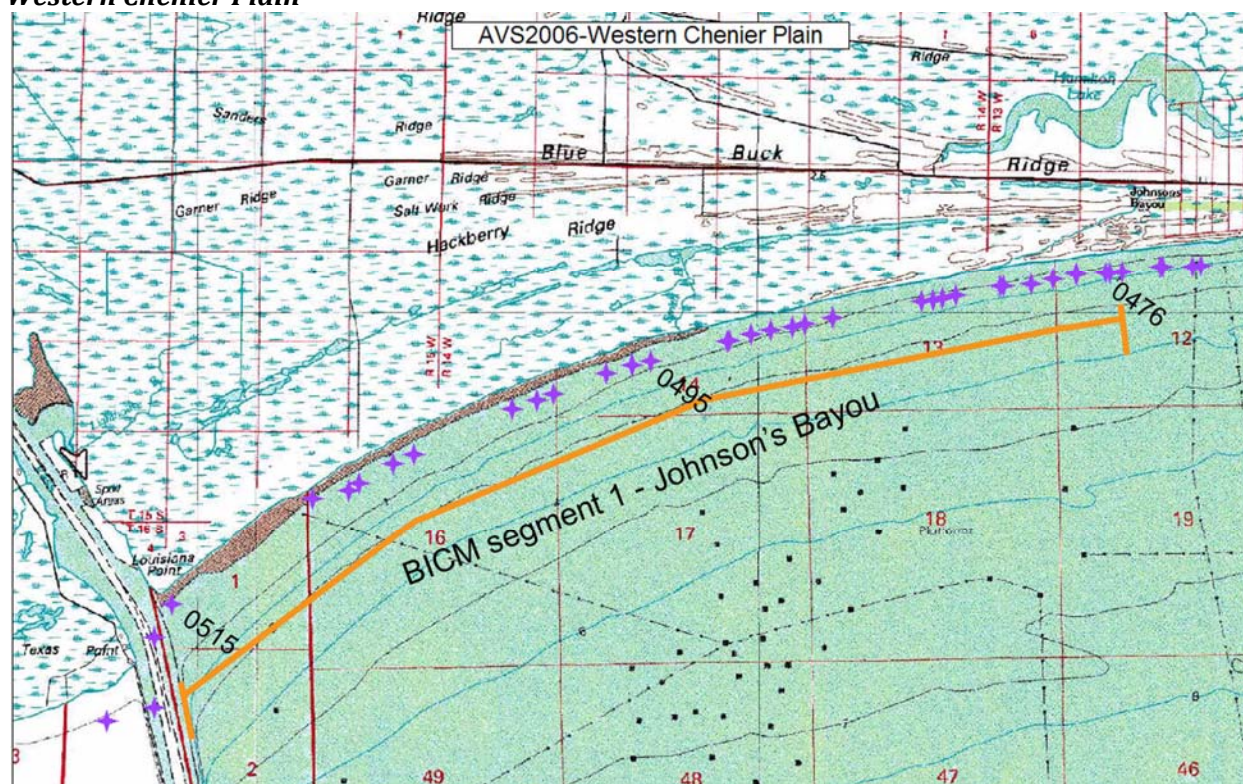


Figure 7. Location of the 2005 digital photos in BICM segment 1 – “Johnson’s Bayou”, frames 0519 to 0472, taken after Hurricane Rita on September 28, 2005 along the Western Chenier Plain shoreline from Sabine Pass to Johnsons Bayou, Louisiana. 4-digit numbers represent photo file-numbers.

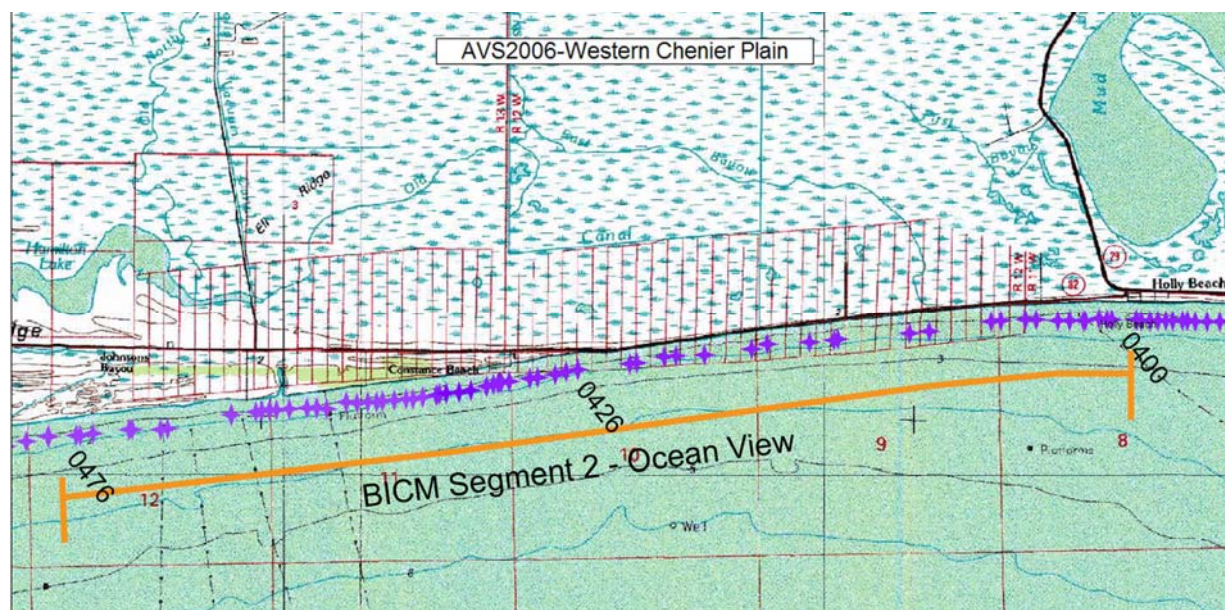


Figure 8. Location of the 2005 digital photos in BICM segment 2 – “Ocean View,” frames 0476 to 0400 taken after Hurricane Rita on September 28, 2005 along the Western Chenier Plain shoreline from Johnsons Bayou to Holly Beach, Louisiana. 4-digit numbers represent photo file-numbers.

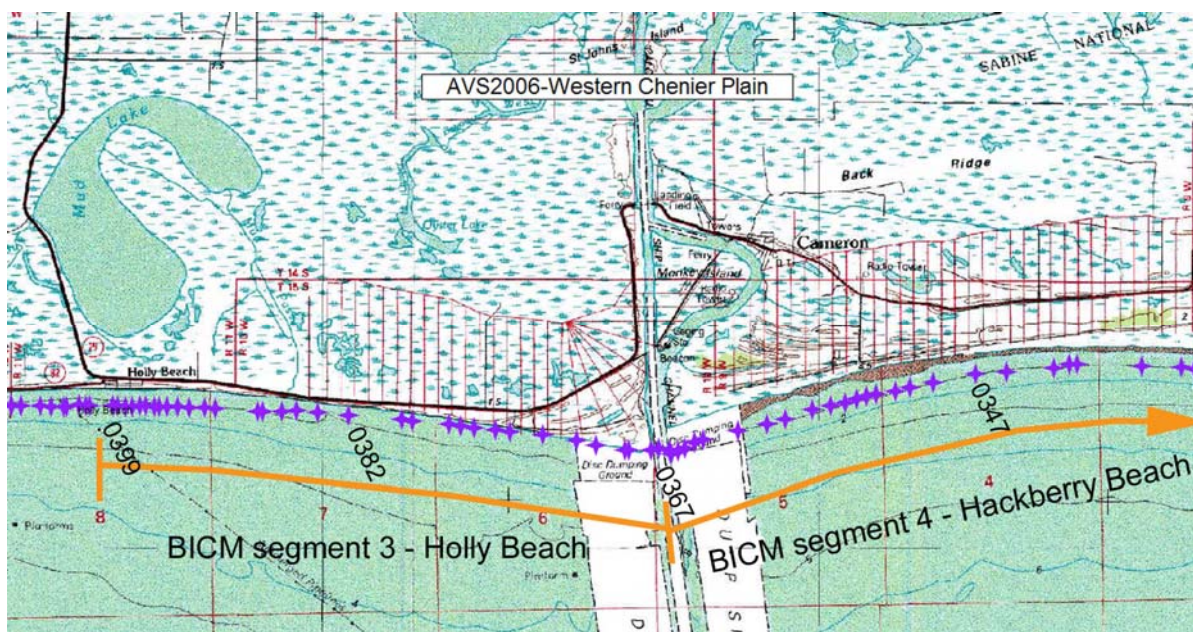


Figure 9. Location of the 2005 digital photos in BICM segment 3 – “Holly Beach” and part of segment 4 – “Hackberry Beach,” frames 0399 to 0347 taken after Hurricane Rita on September 28, 2005 along the Western Chenier Plain shoreline from Holly Beach to east of Calcasieu Pass, Louisiana. 4-digit numbers represent photo file-numbers.

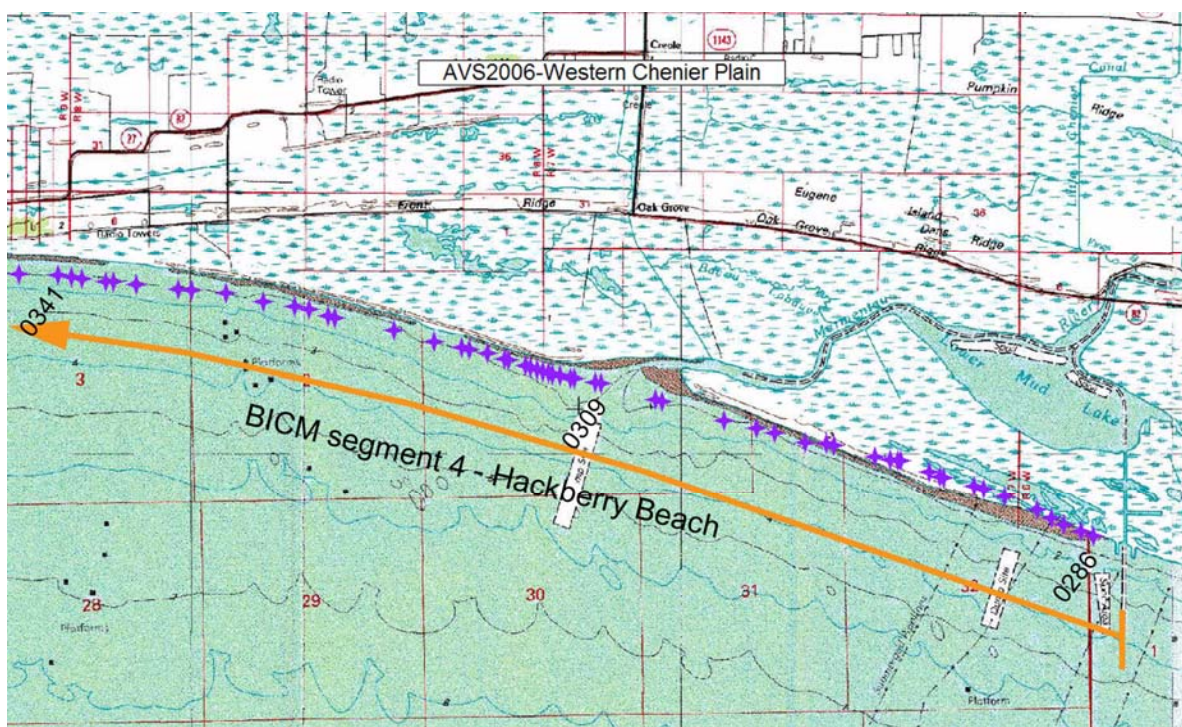


Figure 10. Location of the 2005 digital photos in part of BICM segment 4 – “Hackberry Beach,” frames 0341 to 02866 taken after Hurricane Rita on September 28, 2005 along the Western Chenier Plain shoreline from east of Calcasieu Pass to Mud Lake Outlet, Louisiana. 4-digit numbers represent photo file-numbers.

Eastern Chenier Plain

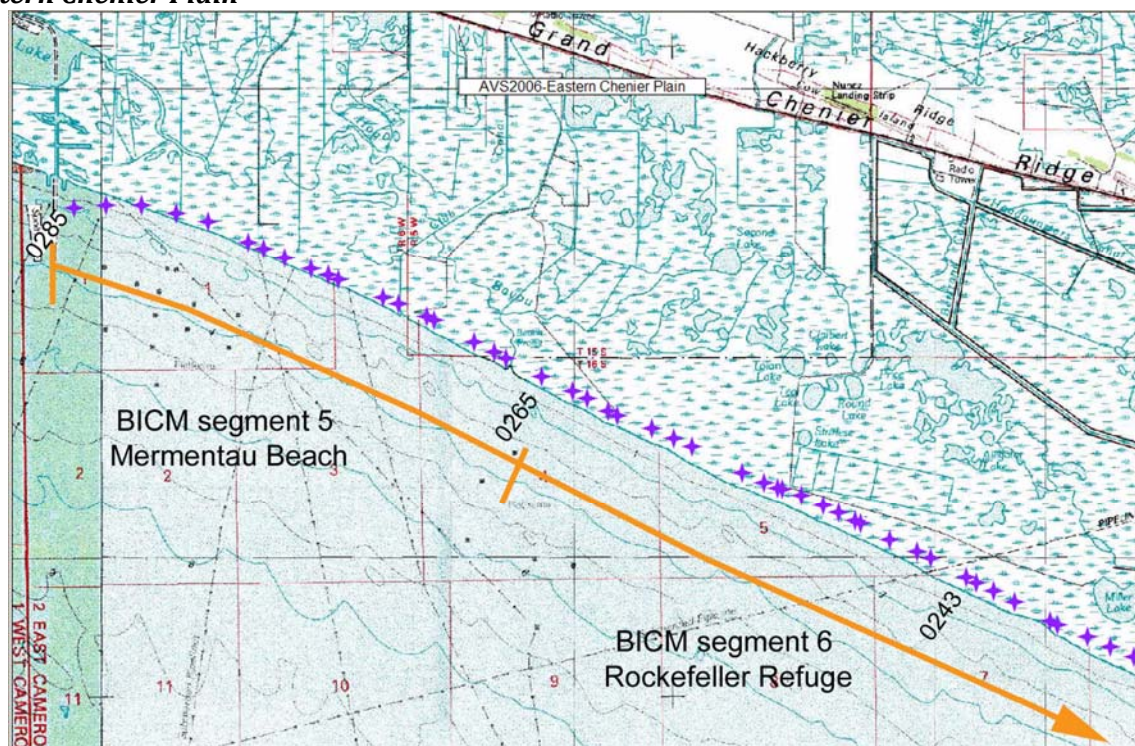


Figure 11. Location of the 2005 digital photos in BICM segment 5 – “Mermentau Beach” and the western part of segment 6 – “Rockefeller Refuge,” photos 0285 to 0235 taken after Hurricane Rita on September 28, 2005 along the Eastern Chenier Plain from Mudlake Outlet to Miller Lake, Louisiana. 4-digit numbers represent photo file-numbers.

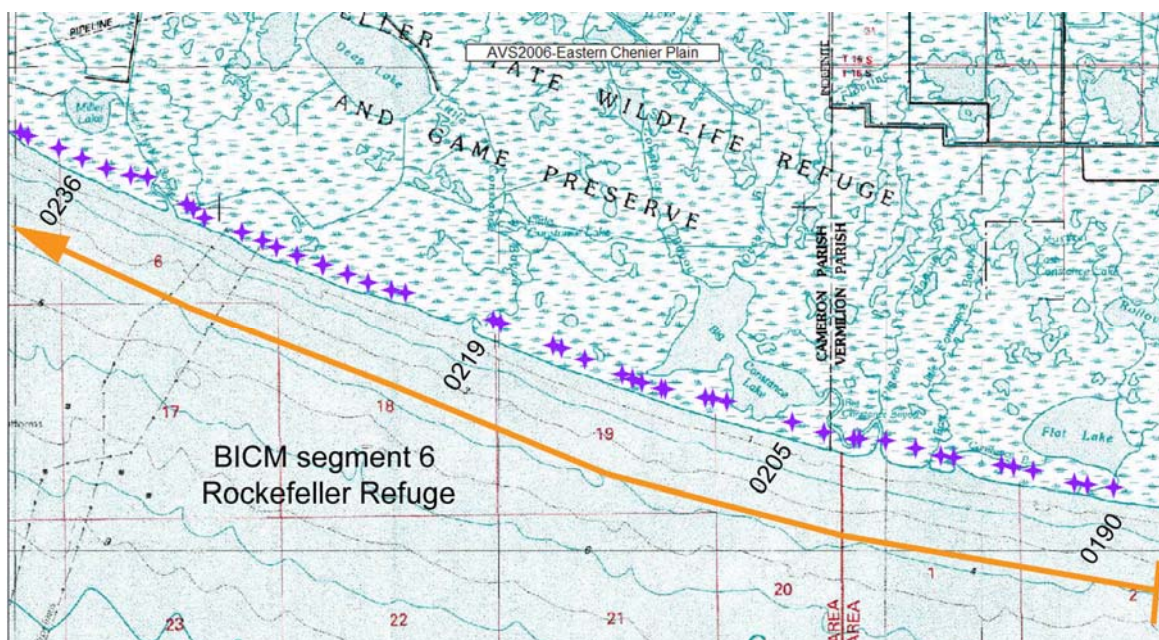


Figure 12. Location of the 2005 digital photos in the eastern part of BICM segment 6 – “Rockefeller Refuge,” frames 0239 to 0190 taken after Hurricane Rita on September 28, 2005 along the Eastern Chenier Plain from Miller Lake to Flat Lake, Louisiana. 4-digit numbers represent photo file-numbers.

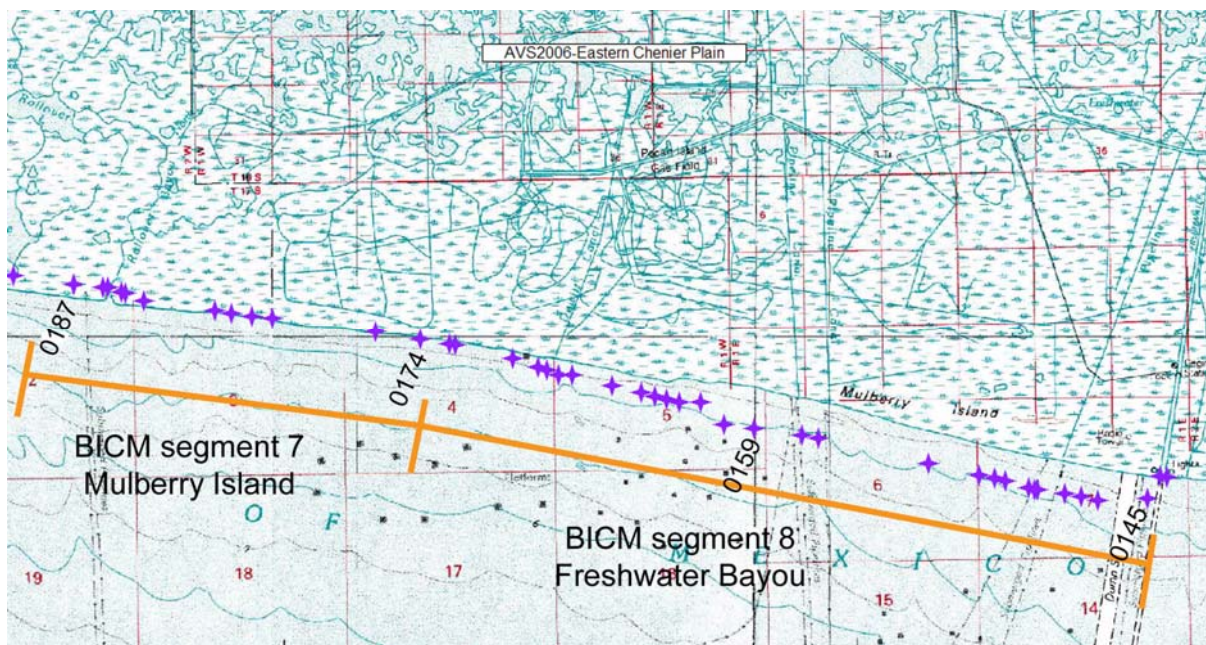


Figure 13. Location of the 2005 digital photos in BICM segment 7 – “Mulberry Island” and segment 8 – “Freshwater Bayou,” frames 0187 to 0142 taken after Hurricane Rita on September 28, 2005 along the Eastern Chenier Plain from Flat Lake to Freshwater Bayou, Louisiana. 4-digit numbers represent photo file-numbers.

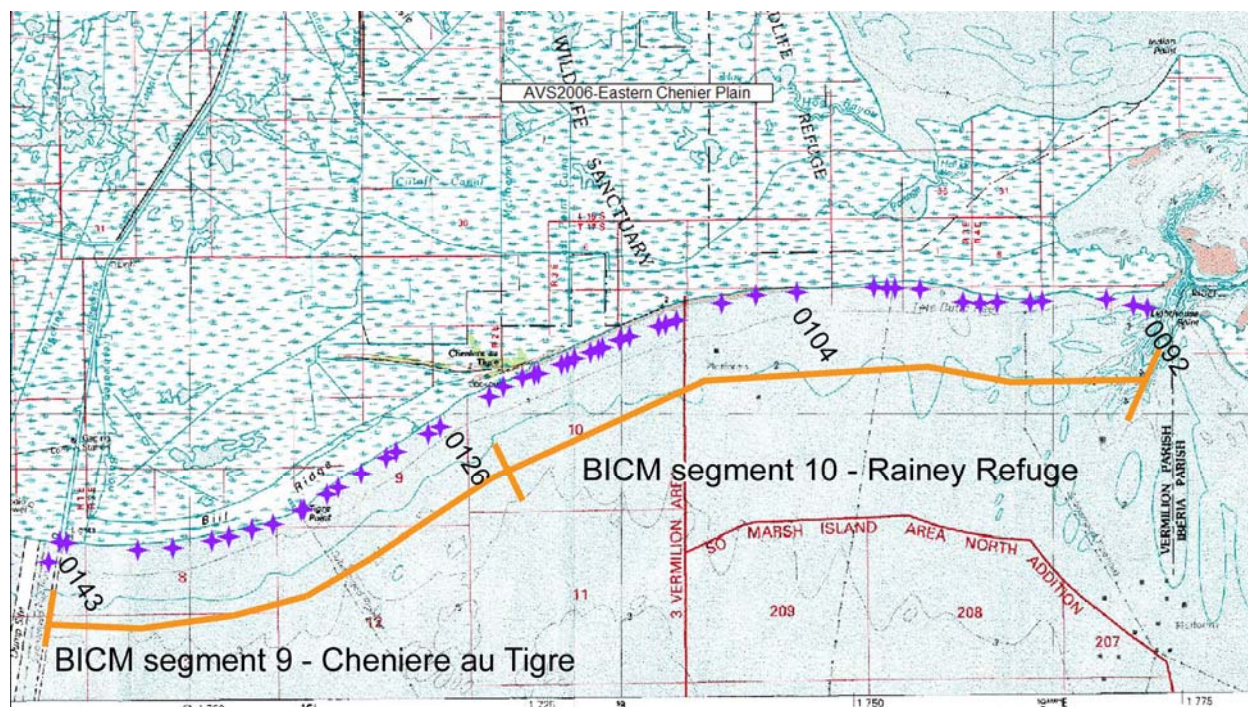


Figure 14. Location of the 2005 digital photos in BICM segment 9 – “Cheniere au Tigre” and segment 10 – “Rainey Refuge,” frames 0143 to 0092 taken after Hurricane Rita on September 28, 2005 along the Eastern Chenier Plain from Freshwater Bayou to Southwest Pass, Louisiana. 4-digit numbers represent photo file-numbers.

Acadiana Bays

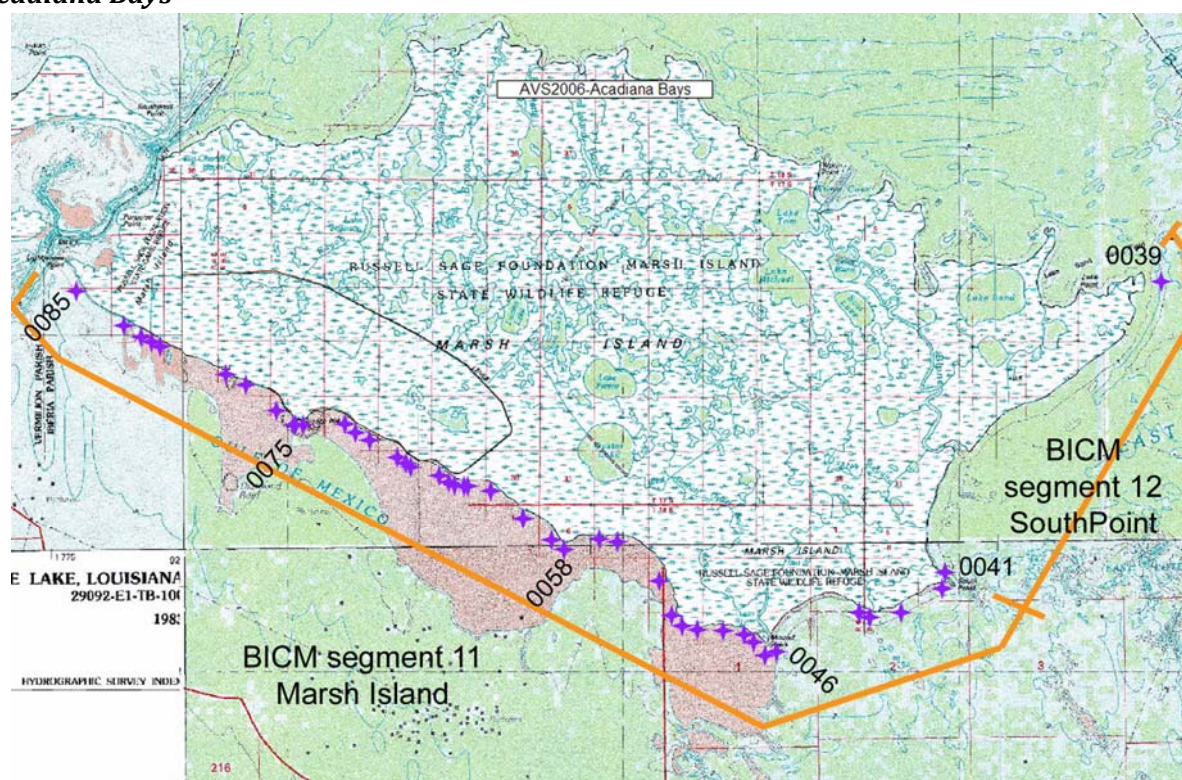


Figure 15. Location of the 2005 digital photos in BICM segment 11 – “Marsh Island” and segment 12 – “South Point,” frames 0085 to 0039 taken after Hurricane Rita on September 28, 2005 along the Gulf of Mexico shoreline of Marsh Island from Southwest Pass to East Point, Louisiana. 4-digit numbers represent photo file-numbers.

Teche Delta

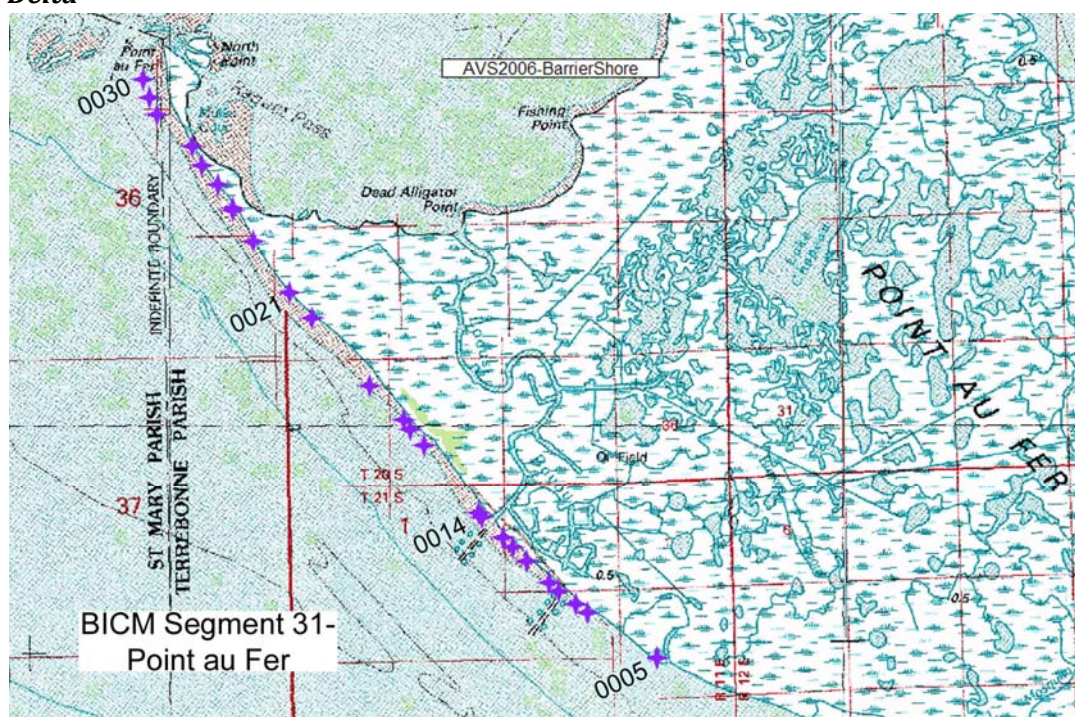


Figure 16. Location of the 2005 digital photos in BICM segment 31 – “Point au Fer,” frames 0030 to 0005 taken after Hurricane Rita on September 28, 2005 along Point au Fer Island of the Teche Delta. 4-digit numbers represent photo file-numbers.

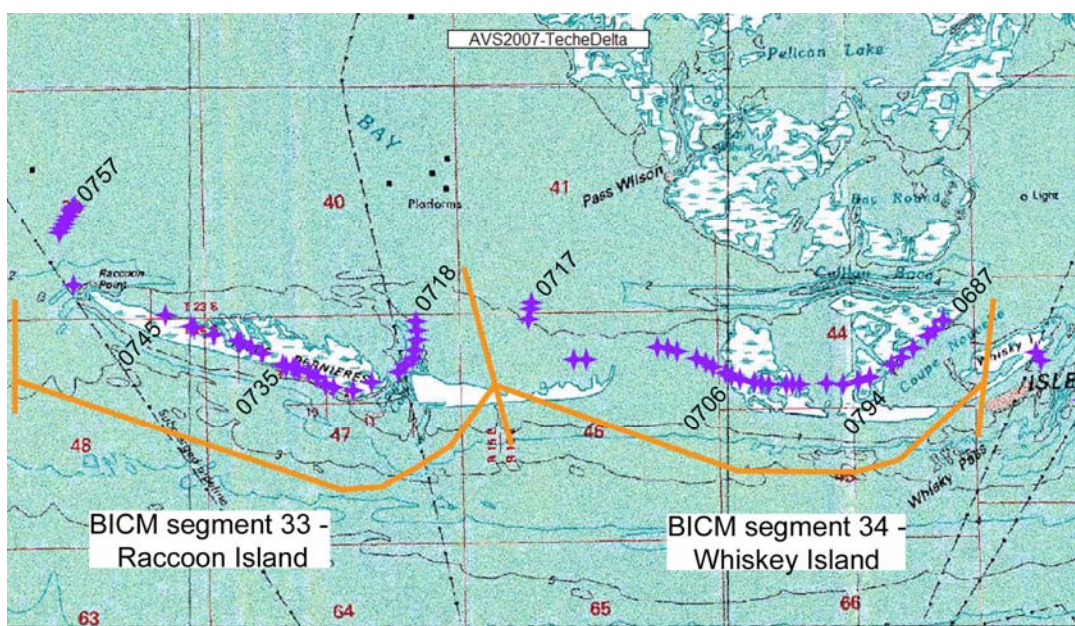


Figure 17. Location of the 2005 digital photos in BICM segment 33 – “Raccoon Island” and segment 34 – “Whiskey Island,” frames 0757 to 0687 taken after hurricanes Katrina and Rita on September 30, 2005 along the Teche Delta Isles Dernieres shoreline, Louisiana. 4-digit numbers represent photo file-numbers.

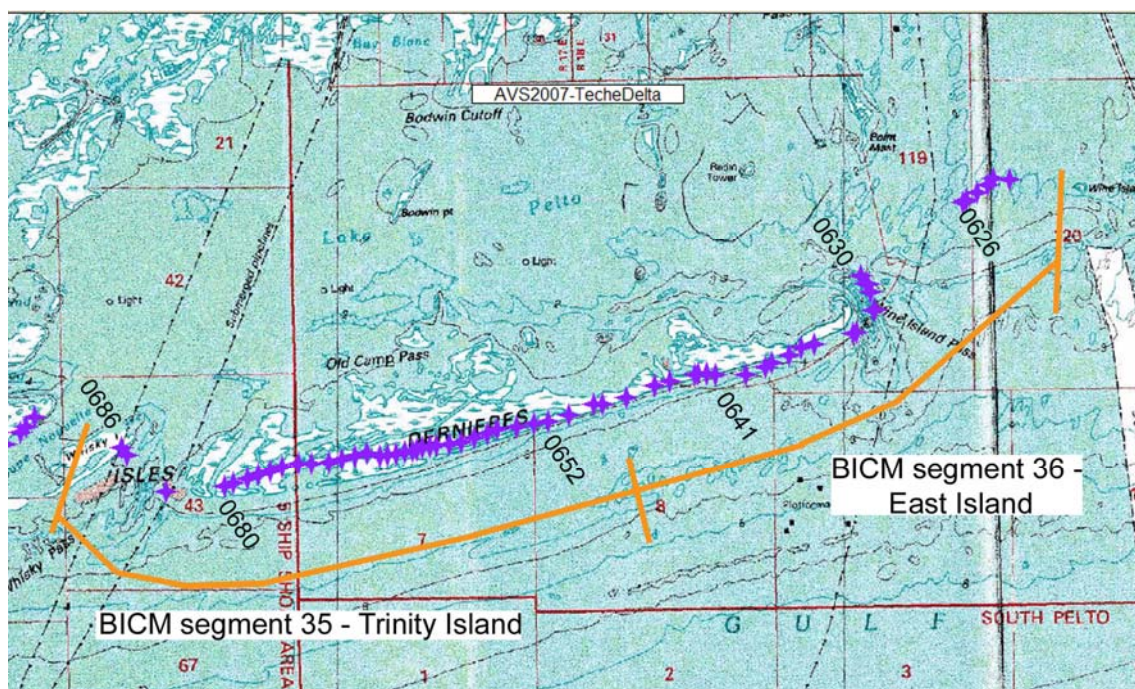


Figure 18. Location of the 2005 digital photos in BICM segment 35 – “Trinity Island” and segment 36 – “East Island,” frames 0686 to 0621 taken after hurricanes Katrina and Rita on September 30, 2005 along the Teche Delta Isles Dernieres shoreline, Louisiana. 4-digit numbers represent photo file-numbers.

Lafourche Delta

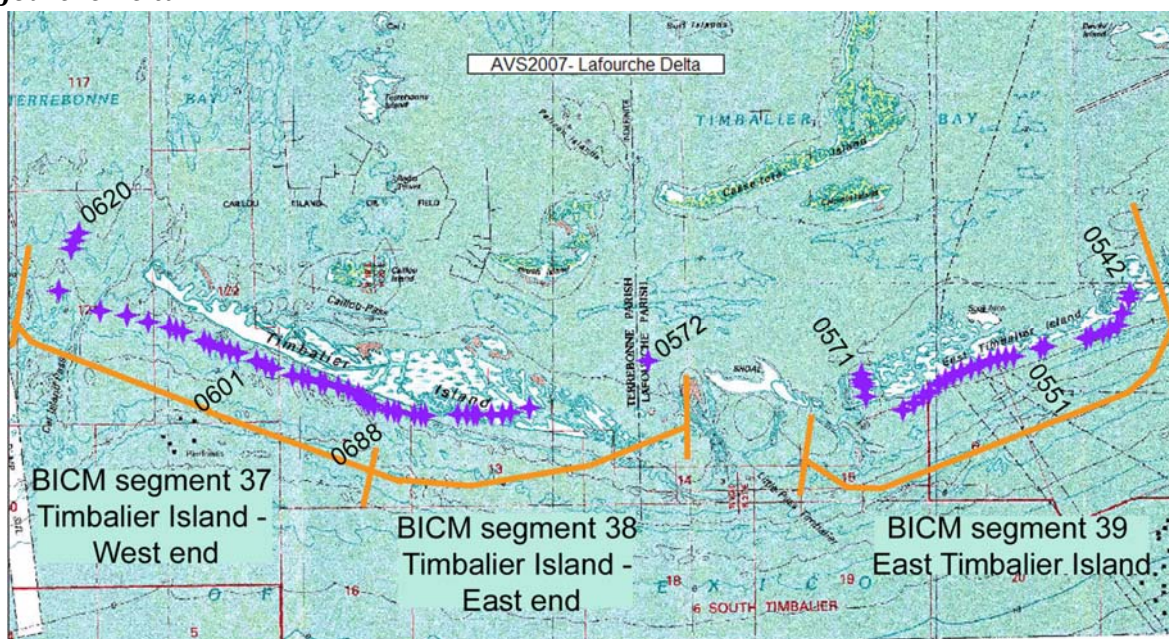


Figure 19. Location of the 2005 digital photos in BICM segment 37 – “Timbalier Island-West end,” segment 38 – Timbalier Island East end,” and segment 39 – “East Timbalier Island,” frames 0620 to 0541 taken after hurricanes Katrina and Rita on September 30, 2005 along the Lafourche Delta Timbalier Islands, Louisiana. 4-digit numbers represent photo file-numbers. 4-digit numbers represent photo file-numbers.

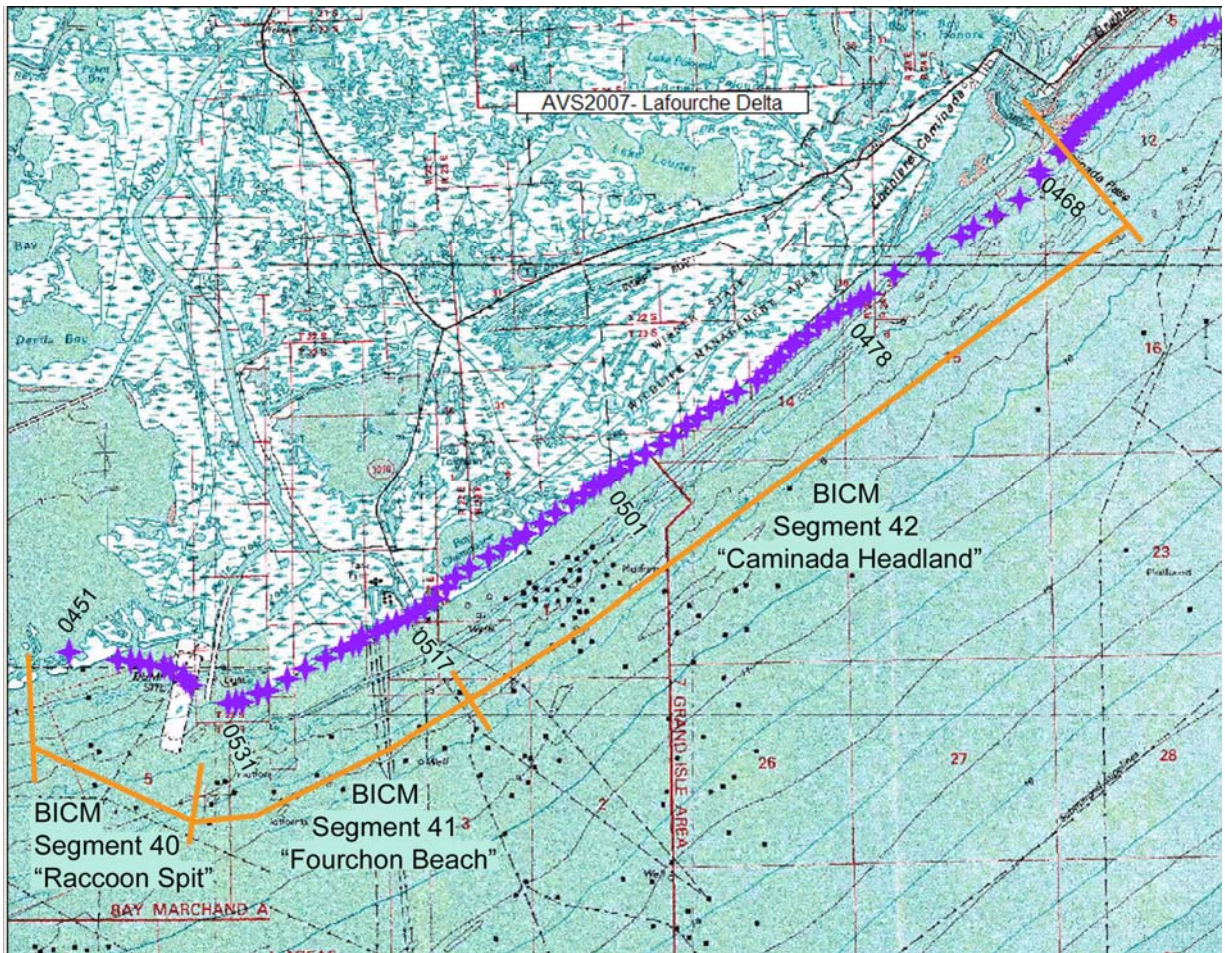
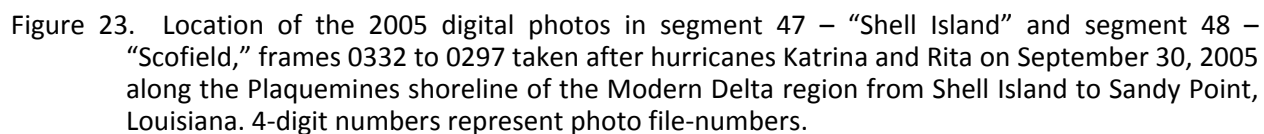
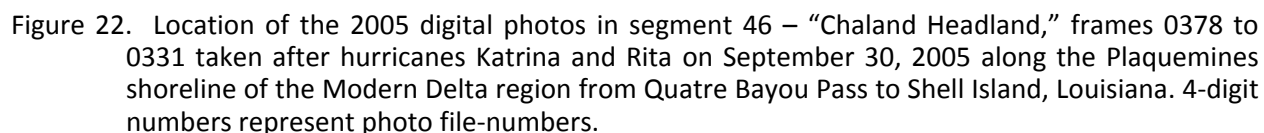


Figure 20. Location of the 2005 digital photos in BICM segment 40 – “Raccoon Spit,” segment 41 – “Fourchon Beach,” and segment 42 – “Caminada Headland,” frames 0541 to 0468 taken after hurricanes Katrina and Rita on September 30, 2005 along the Lafourche Delta region from Raccoon Spit to Elmer’s Island, Louisiana. 4-digit numbers represent photo file-numbers.

17



Chandeleur Islands

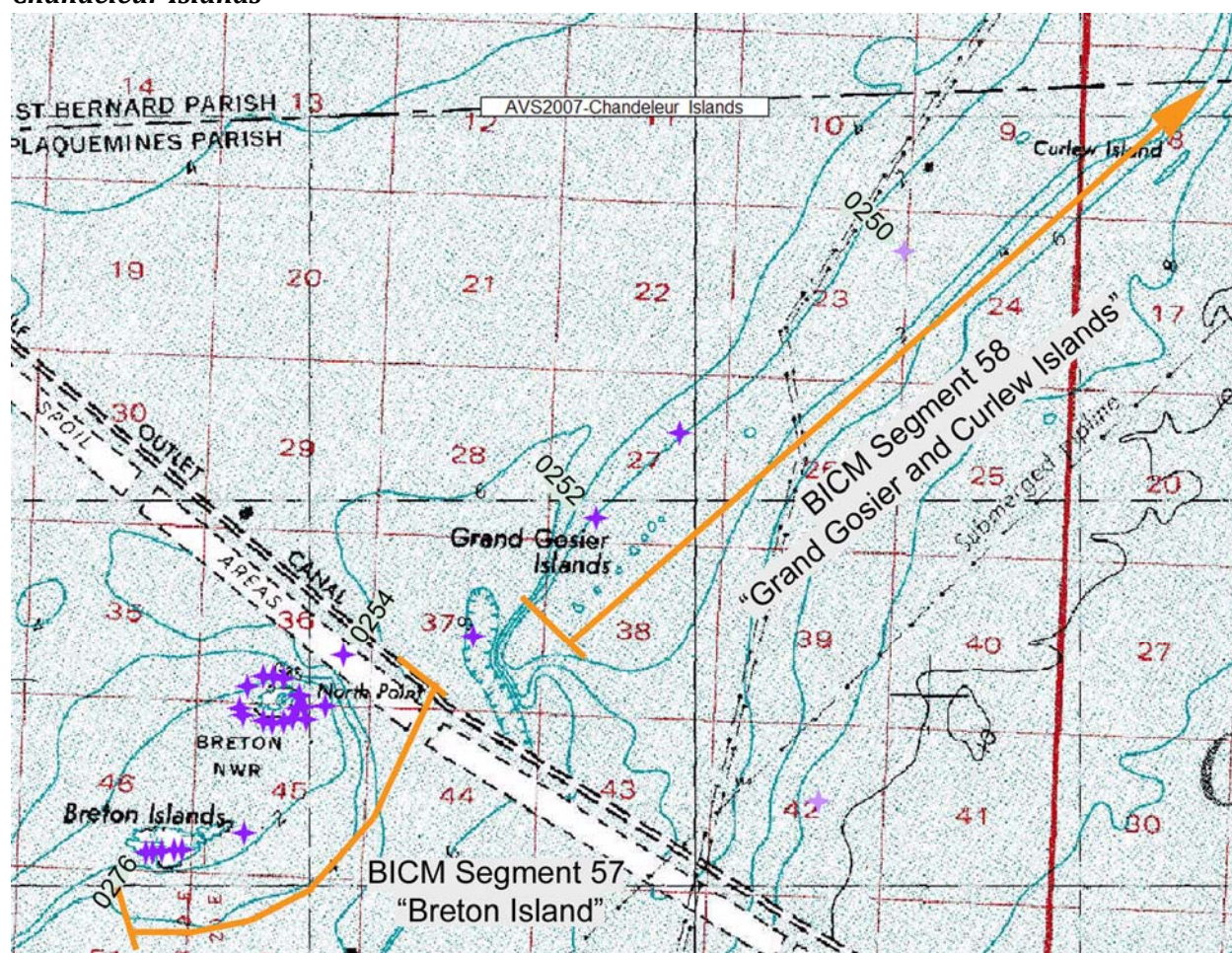


Figure 24. Location of the 2005 digital photos in BICM segment 57 – “Breton Island” and part of segment 58 – “Grand Gosier and Curlew Islands,” frames 0276 to 0250 taken after hurricanes Katrina and Rita on September 30, 2005 along the Chandeleur Islands region from Breton Island to Curlew Island, Louisiana. 4-digit numbers represent photo file-numbers.

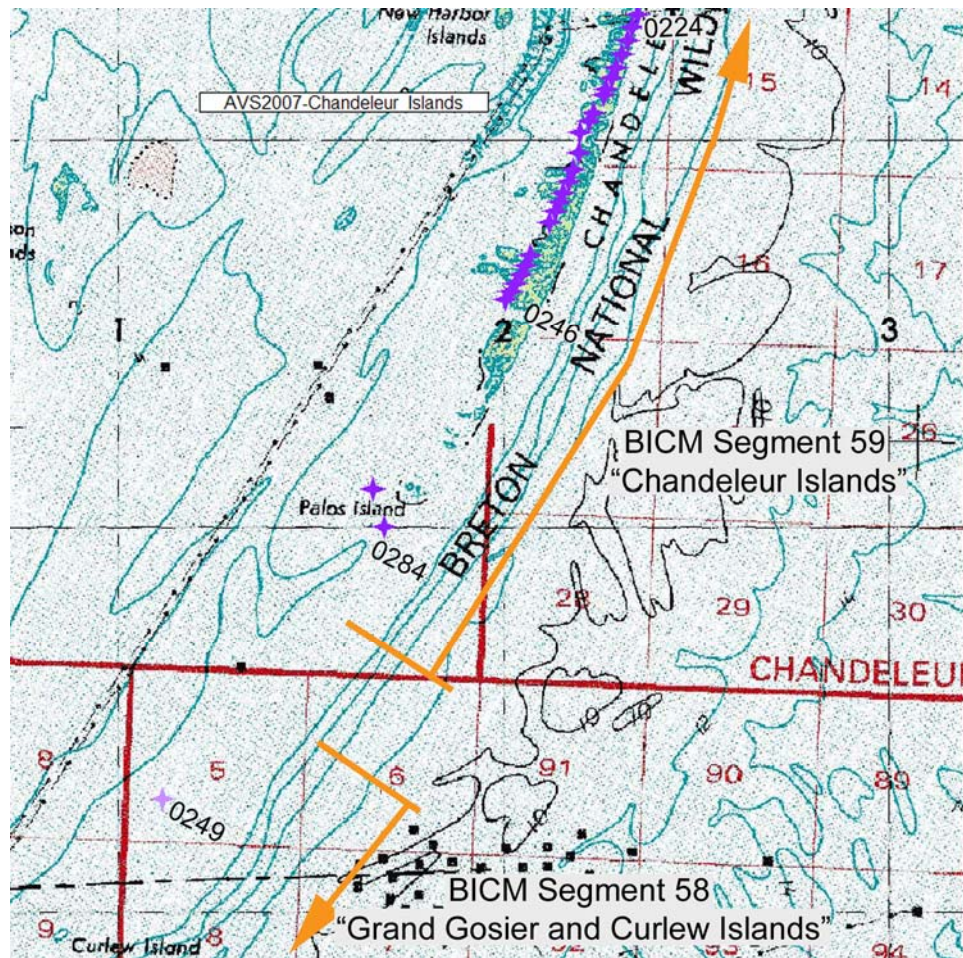


Figure 25. Location of the 2005 digital photos in part of BICM segment 58 – “Grand Gosier and Curlew Islands” and part of segment 59 – “Chandeleur Islands,” frames 0224 to 0249 taken after hurricanes Katrina and Rita on September 30, 2005 along the Chandeleur Islands region, from Curlew Island to Redfish Point, Louisiana. 4-digit numbers represent photo file-numbers.

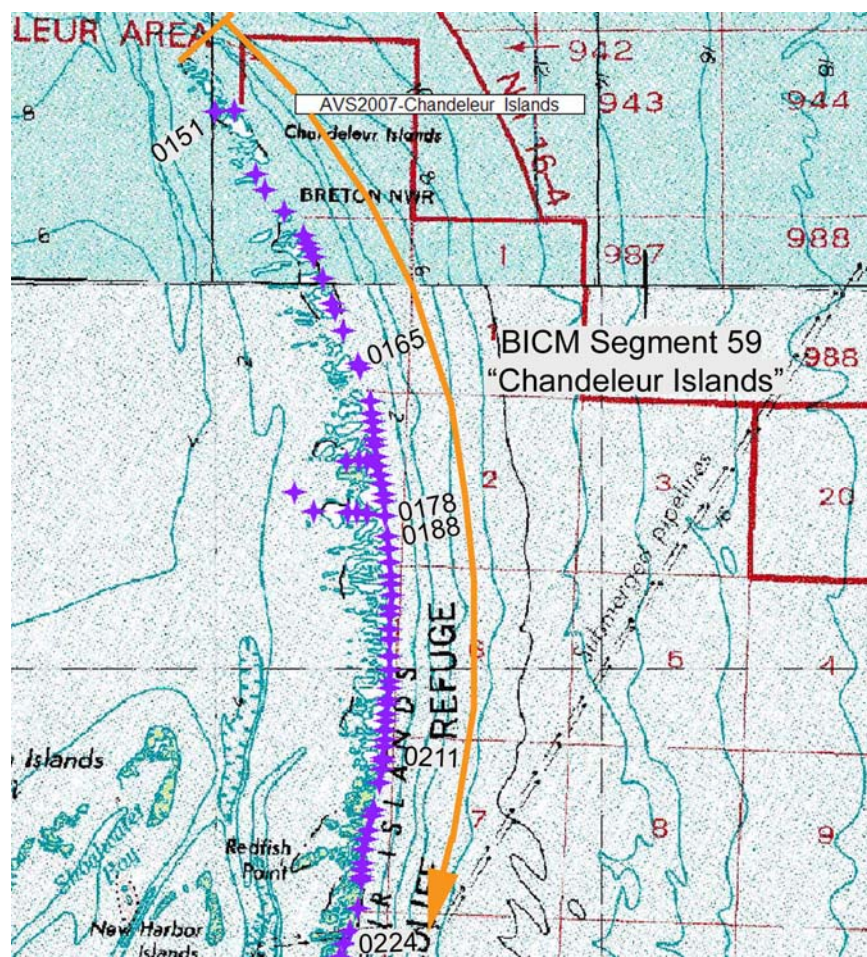


Figure 26. Location of the 2005 digital photos in the northern half of BICM segment 59 – “Chandeleur Islands,” frames 0224 to 0151 taken after hurricanes Katrina and Rita on September 30, 2005 along the Chandeleur Islands region from Redfish Point to Hewes Point, Louisiana. 4-digit numbers represent photo file-numbers.

Location Data for the 2005 Post-Hurricane Katrina/Rita Photography

The data files were organized by BICM region, with one table for each region:

- Western Chenier Plain – Sabine Pass to Mud Lake Outlet
- Eastern Chenier Plain – Mud Lake Outlet to Southwest Pass
- Acadiana Bays – Marsh Island
- Teche Delta – Pt au Fer to Caillou Bay, Isles Dernieres
- Lafourche Delta – Timbalier Islands to Grand Terre Islands
- Modern Delta – Plaquemines shoreline from Cheniere Ronquille to Sandy Point
- Chandeleurs – Breton Island to Hewes Point

Within each region, the data was identified to the approximate BICM segment. Latitude and Longitude was converted by Corpscon6 software to UTM Zone 15 North, NAD 83. Data provided for each frame is date, camera angle, latitude, longitude, UTM Northing and Easting. Location descriptions are provided for some frames. Red frame numbers indicate that the frame was used in a photo-pair or time series.

Western Chenier Plain	APS05R Digital		(location data based on 2006/07 GPS data)		UTM	
	9/28/2005					
Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
Texas Point	519	15°	29°40'24"	93°50'36"	3282886	418396
Texas Point - Sabine Pass	518	330°	29°40'32"	93°50'05"	3283126	419231
	517	300°	29°41'13"	93°50'05"	3284388	419240
BICM segment #1 - Johnson's Bayou						
Sabine Pass	516	355°	29°41'25"	93°49'58"	3284756	419431
	515	330°	29°41'32"	93°49'54"	3284971	419540
	514		29°41'39"	93°49'42"	3285184	419864
	513	330°	29°41'53"	93°49'26"	3285612	420297
	512	0°	29°42'03"	93°49'08"	3285917	420783
	511	330°	29°42'16"	93°48'49"	3286313	421296

Western Chenier Plain Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
boat wreck	510	335°	29°42'27"	93°48'31"	3286648	421782
	509	355°	29°42'31"	93°48'27"	3286771	421891
	508	335°	29°42'34"	93°48'21"	3286862	422053
	507		29°42'39"	93°47'58"	3287011	422672
	506		29°42'43"	93°47'50"	3287133	422887
	505		29°42'55"	93°47'28"	3287498	423481
	504	330°	29°43'01"	93°47'15"	3287681	423832
	503	280°	29°43'09"	93°46'53"	3287923	424424
	502	347°	29°43'27"	93°46'10"	3288469	425583
	501	332°	29°43'32"	93°45'53"	3288620	426041
	500	340°	29°43'36"	93°45'42"	3288741	426337
	499	335°	29°43'48"	93°45'07"	3289104	427280
	498	344°	~29°43'50"	93°45'01"	3289165	427442
south of Hackberry Ridge	497	344°	~29°43'51"	93°44'56"	3289195	427576
	496	344°	29°43'53"	93°44'50"	3289255	427738
	495	345°	29°43'55"	93°44'38"	3289315	428061
	494	345°	~29°44'04"	93°44'01"	3289586	429056
	493	345°	29°44'07"	93°43'48"	3289676	429406
	492	345°	29°44'07"	93°43'46"	3289675	429460
	491	341°	29°44'11"	93°43'32"	3289796	429837
	490	352°	29°44'07"	93°43'48"	3289676	429406
	489	349°	29°44'15"	93°43'04"	3289914	430590
	488	345°	29°44'17"	93°42'56"	3289975	430805
	487	349°	29°44'21"	93°42'38"	3290095	431289
	486	350°	29°44'30"	93°41'38"	3290362	432903
	485	347°	29°44'32"	93°41'31"	3290422	433091
	484	347°	29°44'33"	93°41'25"	3290452	433252
	483	347°	29°44'34"	93°41'16"	3290482	433494
	482	351°	29°44'40"	93°40'47"	3290662	434274
	481	354°	29°44'40"	93°40'45"	3290661	434328
	481	354°	29°44'40"	93°40'45"	3290661	434328
	480	354°	29°44'41"	93°40'26"	3290689	434839
	479	345°	29°44'44"	93°40'12"	3290779	435215

Western Chenier Plain Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
south of Johnson's Bayou - Parish Rd 532	478	348°	29°44'47"	93°39'57"	3290869	435619
	477	358°	29°44'47"	93°39'56"	3290869	435645
BICM segment #2 - Ocean View Beach						
Ocean View	476	356°	29°44'48"	93°39'37"	3290897	436156
	475	356°	29°44'48"	93°39'35"	3290897	436210
	474	355°	29°44'49"	93°39'25"	3290926	436478
	473	350°	29°44'50"	93°39'16"	3290955	436720
	472	358°	29°44'52"	93°39'01"	3291015	437124
	471	0°	29°44'52"	93°38'59"	3291014	437177
	470	356°	29°44'52"	93°38'39"	3291011	437714
	469	348°	29°44'52"	93°38'34"	3291011	437849
	468	345°	29°44'57"	93°38'07"	3291160	438575
	467	347°	29°45'01"	93°37'51"	3291281	439005
SE of Johnson's Bayou - Long Beach Rd	466	350°	29°45'01"	93°37'41"	3291280	439274
	464	352°	29°45'03"	93°37'34"	3291340	439462
	463	353°	29°45'03"	93°37'30"	3291340	439570
	462	354°	29°45'04"	93°37'24"	3291370	439731
	461	355°	29°45'04"	93°37'20"	3291369	439838
	460	355°	29°45'05"	93°37'11"	3291399	440080
	459	355°	29°45'05"	93°37'00"	3291397	440376
	458	359°	29°45'05"	93°36'58"	3291397	440429
	457	359°	29°45'05"	93°36'56"	3291396	440483
	456	1°	29°45'05"	93°36'52"	3291396	440591
S of Blue Buck Ridge	455	7°	29°45'05"	93°36'45"	3291395	440779
	454	12°	29°45'07"	93°36'41"	3291456	440886
	453	3°	29°45'09"	93°36'32"	3291516	441128
	452	0°	29°45'09"	93°36'24"	3291515	441343
	451	357°	29°45'09"	93°36'20"	3291514	441451
	450	356°	29°45'09"	93°36'17"	3291514	441531
	449	356°	29°45'09"	93°36'11"	3291513	441692
	448	355°	29°45'10"	93°36'06"	3291543	441827
	447	355°	29°45'10"	93°35'58"	3291542	442042
	446	356°	29°45'11"	93°35'50"	3291572	442257
Ocean View, LA						
Ocean, LA - S of Blue Buck Ridge						
Constance Beach						

Western Chenier Plain Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
Peveto Beach Protection	445	353°	29°45'11"	93°35'46"	3291571	442364
	444	350°	29°45'12"	93°35'39"	3291601	442552
	443	350°	29°45'13"	93°35'33"	3291631	442714
	442	350°	29°45'13"	93°35'29"	3291630	442821
	441	349°	29°45'14"	93°35'28"	3291661	442848
	440	350°	29°45'15"	93°35'23"	3291691	442982
	439	7°	29°45'15"	93°35'14"	3291690	443224
	438	349°	29°45'16"	93°35'05"	3291719	443466
Constance Beach - Piroux Lane	437	341°	29°45'19"	93°34'58"	3291811	443655
Constance Beach - John Tee Road	436	341°	29°45'19"	93°34'55"	3291810	443735
	435	344°	29°45'20"	93°34'50"	3291841	443870
	434	345°	29°45'21"	93°34'47"	3291871	443950
	433	348°	29°45'21"	93°34'45"	3291871	444004
Peveto Beach	432	348°	29°45'22"	93°34'40"	3291901	444138
	431	353°	29°45'24"	93°34'25"	3291960	444542
	430	352°	29°45'24"	93°34'20"	3291960	444676
	429	350°	29°45'26"	93°34'08"	3292020	444998
	428	345°	29°45'28"	93°34'00"	3292080	445214
	427	350°	29°45'29"	93°33'52"	3292110	445429
	426	344°	29°45'29"	93°33'52"	3292110	445429
	425	280°	29°45'33"	93°33'16"	3292228	446396
	424	20°	29°45'33"	93°33'11"	3292228	446530
	423	348°	29°45'37"	93°32'53"	3292348	447014
	422	355°	29°45'38"	93°32'45"	3292378	447229
	421	355°	29°45'38"	93°32'25"	3292376	447766
	420	352°	29°45'42"	93°31'52"	3292495	448653
	419	343°	29°45'45"	93°31'42"	3292586	448922
	418	358°	29°45'46"	93°31'13"	3292613	449701
	417	354°	29°45'48"	93°30'56"	3292673	450158
	416	352°	29°45'48"	93°30'53"	3292672	450239
	415	358°	29°45'52"	93°30'03"	3292789	451582
	414	350°	29°45'53"	93°29'50"	3292819	451931
	413	330°	29°45'59"	93°29'08"	3292999	453060

Western Chenier Plain Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
Holly Beach - Riviera Lane	412	357°	29°46'00"	93°29'01"	3293029	453248
	411	270°	29°46'00"	93°29'00"	3293028	453275
	410	358°	29°46'00"	93°28'44"	3293027	453704
	409	0°	29°46'00"	93°28'36"	3293026	453919
	408	25°	29°46'00"	93°28'22"	3293024	454295
	407	3°	29°46'00"	93°28'14"	3293023	454510
	406	358°	29°46'00"	93°28'04"	3293022	454778
	405	356°	29°46'00"	93°28'02"	3293022	454832
	404	353°	29°46'01"	93°27'53"	3293052	455074
	403	355°	29°46'00"	93°27'48"	3293021	455208
	402	10°	29°46'00"	93°27'45"	3293020	455289
	401	0°	29°46'01"	93°27'36"	3293050	455531
	400	1°	29°46'00"	93°27'27"	3293018	455772
BICM segment #3 - Holly Beach						
Holly Beach - LaFitte Road (?)	399	3°	29°46'00"	93°27'24"	3293018	455853
	398	2°	29°46'00"	93°27'18"	3293017	456014
	397	359°	29°46'00"	93°27'13"	3293017	456148
	396	357°	29°46'00"	93°27'07"	3293016	456309
	395	359°	29°46'00"	93°27'03"	3293016	456417
	394	1°	29°46'00"	93°26'56"	3293015	456605
	393	2°	29°46'00"	93°26'52"	3293015	456712
	392	4°	29°46'00"	93°26'47"	3293014	456846
	391	1°	29°46'00"	93°26'39"	3293013	457061
	390	0°	29°46'00"	93°26'30"	3293012	457303
	389	1°	29°46'00"	93°26'18"	3293011	457625
	388	10°	29°45'59"	93°26'10"	3292979	457840
	387	0°	29°45'57"	93°25'38"	3292915	458699
	386	0°	29°45'57"	93°25'35"	3292914	458779
	385	357°	29°45'57"	93°25'20"	3292913	459182
	384	2°	29°45'58"	93°25'10"	3292943	459451
	383	0°	29°45'57"	93°24'54"	3292910	459880
	382	0°	29°45'55"	93°24'30"	3292847	460525
	381	10°	29°45'53"	93°23'51"	3292781	461572

Western Chenier Plain Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
Calcasieu Pass	380	22°	29°45'51"	93°23'43"	3292719	461786
	379	5°	29°45'49"	93°23'15"	3292655	462538
	378	8°	29°45'48"	93°23'07"	3292623	462753
	377	6°	29°45'47"	93°22'56"	3292592	463048
	376	8°	29°45'46"	93°22'40"	3292559	463478
	375	7°	29°45'45"	93°22'30"	3292528	463746
	374	4°	29°45'43"	93°22'05"	3292464	464417
	373	18°	29°45'39"	93°21'39"	3292339	465115
	372	23°	29°45'35"	93°21'25"	3292214	465491
	371	6°	29°45'33"	93°21'04"	3292151	466055
	370	8°	29°45'32"	93°21'00"	3292120	466162
Calcasieu Pass	369	4°	29°45'33"	93°20'44"	3292150	466592
Calcasieu Pass	368	300°	29°45'34"	93°20'38"	3292180	466753
BICM segment #4 - Hackberry Beach						
Calcasieu Pass Gas field	367	352°	29°45'33"	93°20'33"	3292149	466887
	366	346°	29°45'30"	93°20'28"	3292056	467021
	365	336°	29°45'32"	93°20'23"	3292117	467156
	364	333°	29°45'34"	93°20'18"	3292178	467290
	363	333°	29°45'38"	93°20'11"	3292301	467478
	362	337°	29°45'40"	93°20'05"	3292362	467640
	360	351°	29°45'46"	93°19'39"	3292545	468338
	359	270°				
	358	336°	29°45'50"	93°19'17"	3292666	468930
	357	334°	29°45'54"	93°19'03"	3292788	469306
	356	341°	29°45'59"	93°18'43"	3292941	469843
	355	349°	29°46'02"	93°18'29"	3293032	470220
	354	344°	29°46'04"	93°18'18"	3293093	470515
	353	343°	29°46'07"	93°18'10"	3293184	470730
	352	344°	29°46'09"	93°18'02"	3293245	470945
	351	351°	29°46'10"	93°17'55"	3293276	471133
	350	352°	29°46'12"	93°17'41"	3293336	471509
	349	346°	29°46'14"	93°17'30"	3293397	471805
	348	349°	29°46'17"	93°17'13"	3293488	472262

Western Chenier Plain Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
	347	345°	29°46'24"	93°16'40"	3293702	473148
	346	358°	29°46'25"	93°16'17"	3293731	473766
	345	350°	29°46'27"	93°15'42"	3293790	474706
	344	351°	29°46'30"	93°15'30"	3293882	475028
	343	0°	29°46'30"	93°15'25"	3293882	475163
	342	359°	29°46'29"	93°14'36"	3293848	476478
	341	6°	29°46'28"	93°14'06"	3293816	477284
	340	10°	29°46'27"	93°13'56"	3293784	477552
	339	9°	29°46'26"	93°13'48"	3293753	477767
	338	2°	29°46'24"	93°13'30"	3293690	478250
	337	4°	29°46'24"	93°13'24"	3293690	478411
	336	7°	29°46'22"	93°13'07"	3293628	478868
	335	5°	29°46'19"	93°12'35"	3293534	479727
	334	4°	29°46'18"	93°12'25"	3293503	479995
	333	8°	29°46'16"	93°11'59"	3293440	480693
	332	10°	29°46'10"	93°11'30"	3293254	481472
	331	8°	29°46'07"	93°11'06"	3293160	482116
	330	9°	29°46'05"	93°10'56"	3293098	482384
	329	20°	29°46'01"	93°10'42"	3292975	482760
	328	16°	29°46'00"	93°10'36"	3292944	482921
	327	16°	29°45'58"	93°10'30"	3292882	483082
	326	13°	29°45'51"	93°09'51"	3292665	484129
	325	13°	29°45'44"	93°09'21"	3292448	484935
	324	12°	29°45'40"	93°09'00"	3292324	485498
	323	33°	29°45'39"	93°08'54"	3292293	485659
	322	16°	29°45'36"	93°08'40"	3292201	486035
	321	16°	29°45'33"	93°08'27"	3292108	486384
	320	15°	29°45'32"	93°08'24"	3292077	486465
	319	18°	29°45'29"	93°08'12"	3291984	486787
	318	19°	29°45'27"	93°08'08"	3291923	486894
	317	18°	29°45'26"	93°08'03"	3291892	487029
Hackberry Beach, Rutherford Beach, Mermentau	316	17°	29°45'25"	93°07'58"	3291861	487163
	315	20°	29°45'24"	93°07'54"	3291830	487270

Western Chenier Plain Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
Rutherford Beach - West Avenue	314	17°	29°45'23"	93°07'51"	3291799	487351
	313	19°	29°45'22"	93°07'45"	3291768	487512
	312	19°	29°45'20"	93°07'38"	3291706	487700
Rutherford Beach Road	311	15°	29°45'20"	93°07'34"	3291706	487807
	310	19°	29°45'18"	93°07'18"	3291644	488237
	309	16°	29°45'17"	93°07'14"	3291613	488344
	308	24°	29°45'06"	93°06'33"	3291274	489445
	307	10°	29°45'05"	93°06'27"	3291243	489606
	306	12°	29°44'52"	93°05'42"	3290841	490814
	305	13°	29°44'47"	93°05'16"	3290687	491513
	304	17°	29°44'45"	93°05'02"	3290625	491889
	303	15°	29°44'38"	93°04'39"	3290409	492506
	302	5°	29°44'37"	93°04'23"	3290378	492936
	301	9°	29°44'36"	93°04'17"	3290347	493097
	300	16°	29°44'29"	93°03'47"	3290131	493903
	299	15°	29°44'27"	93°03'35"	3290070	494225
	298	5°	29°44'26"	93°03'29"	3290039	494386
	297	15°	29°44'26"	93°03'26"	3290039	494467
	296	34°	29°44'18"	93°03'05"	3289792	495031
	295	20°	29°44'16"	93°02'57"	3289731	495246
	294	18°	29°44'14"	93°02'54"	3289669	495326
	293	17°	29°44'09"	93°02'31"	3289515	495944
Hackberry Beach	292	19°	29°44'07"	93°02'24"	3289453	496132
	291	21°	29°44'02"	93°02'08"	3289299	496562
	290	26°	29°43'53"	93°01'43"	3289022	497233
	289	29°	29°43'48"	93°01'32"	3288868	497529
	288	31°	29°43'43"	93°01'23"	3288714	497770
	287	15°	29°43'39"	93°01'10"	3288591	498120
	286	50°	29°43'36"	93°01'01"	3288499	498361
Mud Lake Outlet						
Mud Lake Outlet						

Eastern Chenier Plain	APS05R digital 9/28/2005	camera angle	(location data based on 2006/07 GPS data)	Longitude	UTM	
					Northing	Easting
Location	frame no.		Latitude			
BICM segment #5 - Mermentau Beach						
Mud Lake Outlet	285	12°	29°43'08"	93°00'22"	3287637	499409
	284	0°	29°43'10"	92°59'56"	3287698	500107
	283	10°	29°43'10"	92°59'28"	3287698	500860
	282	10°	29°43'10"	92°59'28"	3287698	500860
	281	14°	29°43'05"	92°59'01"	3287544	501585
	280	14°	29°43'05"	92°59'01"	3287544	501585
	279	19°	29°42'59"	92°58'36"	3287360	502257
	278	25°	29°42'45"	92°58'04"	3286929	503117
	277	24°	29°42'40"	92°57'52"	3286775	503439
	276	23°	29°42'34"	92°57'36"	3286591	503869
	275	23°	29°42'26"	92°57'14"	3286345	504460
	274	40°	29°42'22"	92°57'01"	3286222	504810
	273	20°	29°42'22"	92°57'01"	3286222	504810
	272	20°	29°42'19"	92°56'53"	3286130	505025
	271	21°	29°42'06"	92°56'18"	3285730	505965
	270	24°	29°42'02"	92°56'06"	3285607	506288
	269	25°	29°41'53"	92°55'44"	3285330	506879
	268	24°	29°41'50"	92°55'37"	3285238	507067
	267	30°	29°41'36"	92°55'06"	3284808	507901
	266	29°	29°41'28"	92°54'50"	3284562	508331
	265	29°	29°41'24"	92°54'41"	3284439	508573
Beach Prong						
BICM segment #6 - Rockefeller Refuge						
	264	23°	29°41'11"	92°54'13"	3284039	509326
	263	24°	29°41'02"	92°53'48"	3283763	509998
	262	29°	29°40'56"	92°53'37"	3283579	510293
	261	315°	29°40'47"	92°53'20"	3283302	510751
	260	26°	29°40'44"	92°53'13"	3283210	510939
	259	18°	29°40'36"	92°52'46"	3282964	511665

Eastern Chenier Plain Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
Rockefeller Wildlife Refuge	258	26°	29°40'29"	92°52'29"	3282749	512122
	257	27°	29°40'23"	92°52'15"	3282565	512498
	256	27°	29°40'23"	92°52'15"	3282565	512498
	255	25°	29°40'04"	92°51'35"	3281982	513574
	254	25°	29°39'58"	92°51'18"	3281797	514032
	253	19°	29°39'54"	92°51'07"	3281675	514327
	252	19°	29°39'34"	92°51'03"	3281059	514436
	251	21°	29°39'49"	92°50'48"	3281522	514838
	250	25°	29°39'42"	92°50'31"	3281307	515296
	249	27°	29°39'37"	92°50'19"	3281153	515618
	248	26°	29°39'32"	92°50'06"	3281000	515968
	247	29°	29°39'29"	92°50'01"	3280908	516103
	246	30°	29°39'18"	92°49'38"	3280570	516721
	245	20°	29°39'10"	92°49'17"	3280325	517286
	244	23°	29°39'06"	92°49'06"	3280202	517582
	243	28°	29°38'52"	92°48'38"	3279772	518336
	242	27°	29°38'49"	92°48'30"	3279680	518551
	241	27°	29°38'43"	92°48'16"	3279496	518928
	240	29°	29°38'35"	92°48'00"	3279251	519358
	239	25°	29°38'22"	92°47'32"	3278852	520112
	238	23°	29°38'20"	92°47'27"	3278791	520246
	237	18°	29°38'11"	92°47'03"	3278515	520892
	236	23°	29°38'05"	92°46'45"	3278331	521376
	235	20°	29°37'57"	92°46'26"	3278086	521888
	234	22°	29°37'53"	92°46'08"	3277964	522372
	233	345°	29°37'52"	92°45'54"	3277934	522749
	232	22°	29°37'34"	92°45'24"	3277381	523556
	231	42°	29°37'30"	92°45'19"	3277259	523691
	230	40°	29°37'24"	92°45'11"	3277074	523907
	229	20°	29°37'15"	92°44'42"	3276799	524687
	228	26°	29°37'09"	92°44'26"	3276615	525118
Rockefeller E	227	27°	29°37'04"	92°44'15"	3276462	525414
	226	22°	29°36'59"	92°43'59"	3276309	525845

Eastern Chenier Plain Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
Constance Bayou	225	19°	29°36'52"	92°43'52"	3276094	526033
	224	315°	29°36'52"	92°43'40"	3276095	526356
	223	315°	29°36'46"	92°43'21"	3275911	526868
	222	22°	29°36'41"	92°43'05"	3275759	527298
	221	16°	29°36'36"	92°42'47"	3275606	527783
	220	14°	29°36'33"	92°42'37"	3275514	528052
	219	20°	29°36'15"	92°41'29"	3274965	529882
	218	29°	29°36'12"	92°41'23"	3274873	530044
	217	22°	29°35'58"	92°40'43"	3274445	531121
Rockefeller Wildlife Refuge - W of Big Cons Lake	216	350°	29°35'55"	92°40'37"	3274353	531283
	215	24°	29°35'48"	92°40'18"	3274139	531794
	214	21°	29°35'38"	92°39'50"	3273833	532548
	213	25°	29°35'35"	92°39'42"	3273742	532764
	212	305°	29°35'35"	92°39'42"	3273742	532764
	211	20°	29°35'32"	92°39'35"	3273650	532952
	210	16°	29°35'28"	92°39'20"	3273528	533356
	209	14°	29°35'27"	92°39'17"	3273498	533437
	208	11°	29°35'22"	92°38'46"	3273346	534271
Constance Lake	207	12°	29°35'21"	92°38'40"	3273316	534433
	206	305°	29°35'19"	92°38'30"	3273255	534702
	205	15°	29°35'05"	92°37'39"	3272829	536076
	204	15°	29°34'59"	92°37'15"	3272646	536722
	203	305°	29°34'59"	92°37'15"	3272646	536722
	202	18°	29°34'54"	92°36'52"	3272494	537341
	201	3°	29°34'54"	92°36'48"	3272494	537449
	200	13°	29°34'53"	92°36'27"	3272466	538014
	199	17°	29°34'48"	92°36'05"	3272314	538606
East Little Constance Bayou	198	12°	29°34'43"	92°35'45"	3272162	539145
	197	15°	29°34'41"	92°35'35"	3272101	539414
	196	305°	29°34'41"	92°35'35"	3272101	539414
	195	8°	29°34'36"	92°34'59"	3271951	540383
	194	10°	29°34'35"	92°34'49"	3271921	540652
	193	13°	29°34'32"	92°34'34"	3271830	541056

Eastern Chenier Plain Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
Flat Lake	192	9°	29°34'24"	92°34'03"	3271587	541891
	191	5°	29°34'23"	92°33'53"	3271557	542160
	190	5°	29°34'21"	92°33'33"	3271497	542699
	189	305°	29°34'21"	92°33'33"	3271497	542699
	188					
BICM segment #7 - Mulberry Island						
Rollover Bayou	187	3°	29°34'15"	92°32'45"	3271318	543991
	186	3°	29°34'15"	92°32'45"	3271318	543991
	185	8°	29°34'13"	92°32'22"	3271259	544610
	184	12°	29°34'12"	92°32'18"	3271228	544718
	183	305°	29°34'09"	92°32'08"	3271137	544987
	182	24°	29°34'08"	92°32'05"	3271107	545068
	181	305°	29°34'08"	92°32'05"	3271107	545068
	180	6°	29°33'56"	92°30'54"	3270745	546980
	179	8°	29°33'54"	92°30'41"	3270685	547330
	178	8°	29°33'52"	92°30'25"	3270625	547761
	177	8°	29°33'50"	92°30'09"	3270566	548191
	176	305°				
	175	20°	29°33'41"	92°28'48"	3270298	550372
	174	4°	29°33'35"	92°28'13"	3270118	551315
	173	12°	29°33'32"	92°27'50"	3270028	551934
	172	11°	29°33'31"	92°27'45"	3269998	552069
BICM segment #8 - Freshwater Bayou						
Dewitt Canal Dewitt Canal	171	12°	29°33'22"	92°27'00"	3269727	553281
	170	21°	29°33'15"	92°26'40"	3269514	553820
	169	20°	29°33'13"	92°26'33"	3269453	554009
	168	22°	29°33'10"	92°26'24"	3269362	554252
	167	22°	29°33'10"	92°26'13"	3269363	554548
	166	22°	29°33'03"	92°25'42"	3269152	555383
	165	22°	29°32'58"	92°25'19"	3269001	556003
	164	22°	29°32'55"	92°25'08"	3268910	556299
	163	22°	29°32'53"	92°24'59"	3268850	556542
	162	315°	29°32'51"	92°24'49"	3268790	556811

Eastern Chenier Plain Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
Freshwater Bayou	161	300°	29°32'51"	92°24'38"	3268791	557107
	160	10°	29°32'36"	92°24'14"	3268333	557755
	159	9°	29°32'32"	92°23'50"	3268213	558402
	158	6°	29°32'28"	92°23'13"	3268095	559399
	157	11°	29°32'26"	92°23'00"	3268035	559749
	156	17°	29°32'08"	92°21'33"	3267494	562093
	155	11°	29°32'00"	92°20'53"	3267254	563171
	154	14°	29°31'58"	92°20'41"	3267194	563495
	153	17°	29°31'56"	92°20'33"	3267134	563710
	152	15°	29°31'51"	92°20'15"	3266983	564196
	151	13°	29°31'50"	92°20'10"	3266953	564331
	150	13°	29°31'49"	92°20'08"	3266922	564385
	149	8°	29°31'47"	92°19'46"	3266864	564977
	148	13°	29°31'44"	92°19'33"	3266774	565328
	147	305°	29°31'44"	92°19'33"	3266774	565328
	146	14°	29°31'42"	92°19'20"	3266714	565678
	145	14°	29°31'43"	92°18'41"	3266751	566727
	144	300°	29°31'43"	92°18'41"	3266751	566727
BICM segment #9 - Cheniere au Tigre						
FW Bayou	143	13°	29°31'58"	92°18'31"	3267214	566994
	142	8°	29°31'57"	92°18'26"	3267184	567129
	141	300°				
	140	359°	29°31'52"	92°17'25"	3267040	568771
	139	355°	29°31'53"	92°16'54"	3267076	569606
	138	349°	29°31'58"	92°16'20"	3267236	570520
	137	343°	29°32'02"	92°16'05"	3267362	570923
	136	344°	29°32'06"	92°15'46"	3267488	571434
	135	347°	29°32'10"	92°15'28"	3267614	571917
	134	332°	29°32'20"	92°15'03"	3267926	572588
	133	331°	29°32'21"	92°15'01"	3267957	572642
	132	326°	29°32'32"	92°14'41"	3268299	573178
	131	324°	29°32'38"	92°14'31"	3268486	573446
	130	326°	29°32'48"	92°14'12"	3268797	573955
FW Bayou looking E						

Eastern Chenier Plain Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
	129	325°	29°33'00"	92°13'50"	3269170	574545
	128	329°	29°33'05"	92°13'42"	3269326	574759
	127					
	126	331°	29°33'18"	92°13'14"	3269731	575510
	125	332°	29°33'23"	92°13'04"	3269886	575778
BICM segment #10 - Rainey Refuge						
Cheniere au Tigre	124	328°	29°33'46"	92°12'21"	3270602	576930
Cheniere au Tigre	123	328°	29°33'46"	92°12'21"	3270602	576930
Cheniere au Tigre	122	330°	29°33'53"	92°12'08"	3270820	577279
Cheniere au Tigre	121	339°	29°33'59"	92°11'52"	3271008	577708
Marsh Island	120	346°	29°34'02"	92°11'42"	3271102	577976
	119	341°	29°34'03"	92°11'39"	3271133	578057
	118	338°	29°34'09"	92°11'19"	3271322	578594
	117	338°	29°34'11"	92°11'14"	3271384	578728
	116	337°	29°34'14"	92°11'07"	3271478	578916
	115	340°	29°34'18"	92°10'54"	3271603	579264
	114	338°	29°34'20"	92°10'46"	3271667	579479
	113	336°	29°34'22"	92°10'43"	3271729	579560
	112	336°	29°34'27"	92°10'29"	3271885	579935
	111	336°	29°34'28"	92°10'28"	3271916	579962
	110	340°	29°34'30"	92°10'20"	3271979	580177
	109	343°	29°34'37"	92°09'55"	3272200	580848
	108	341°	29°34'39"	92°09'48"	3272262	581036
	107	344°	29°34'42"	92°09'40"	3272356	581250
	106	353°	29°34'54"	92°09'00"	3272734	582324
	105	355°	29°35'00"	92°08'32"	3272924	583076
	104	351°	29°35'02"	92°07'55"	3272993	584071
Portage Lake	103	2°	29°35'05"	92°06'50"	3273098	585819
Portage Lake	102	2°	29°35'05"	92°06'38"	3273101	586142
	101	2°	29°35'05"	92°06'32"	3273102	586303
	100	358°	29°35'04"	92°06'10"	3273076	586895
	99	15°	29°34'54"	92°05'33"	3272776	587893
	98	359°	29°34'53"	92°05'18"	3272748	588297

Eastern Chenier Plain Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
Southwest Pass	97	0°	29°34'54"	92°05'03"	3272782	588700
	96	0°	29°34'54"	92°04'35"	3272788	589453
	95	357°	29°34'54"	92°04'24"	3272790	589749
	94	7°	29°34'55"	92°03'30"	3272833	591202
	93	13°	29°34'50"	92°03'06"	3272684	591849
	92	11°	29°34'48"	92°02'54"	3272625	592172

Acadiana Bays	APS05R digital 9/28/2005		(location data based on 2006/07 GPS data)		UTM	
Location	frame no.	camera angle	lat/long	lat/long	Northing	Easting
BICM segment #11 - Marsh Island						
Lighthouse Pt -Marsh Island	91					
	90					
	89					
	88					
	87					
	86					
	85	39°	29°34'11"	92°01'56"	3271499	593742
	84	0°	29°34'11"	92°01'56"	3271499	593742
	83	33°	29°33'37"	92°01'05"	3270464	595123
	82	34°	29°33'25"	92°00'45"	3270100	595665
	81	25°	29°33'20"	92°00'35"	3269948	595935
	80	24°	29°33'16"	92°00'24"	3269827	596232
	79	33°	29°32'49"	91°59'12"	3269013	598177
	78	25°	29°32'38"	91°58'49"	3268680	598799
	77	53°	29°32'13"	91°58'16"	3267918	599694
	76	30°	29°31'59"	91°57'58"	3267492	600183
	75	14°	29°31'59"	91°57'56"	3267492	600236
	74	300°	29°31'59"	91°57'47"	3267494	600479
	73	39°	29°31'59"	91°57'01"	3267505	601717
Grosse Isle Pt						
Grosse Isle Pt						
Grosse Isle Pt						
Grosse Isle Pt						

Acadiana Bays Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
	72	22°	29°31'52"	91°56'49"	3267293	602042
	71	37°	29°31'44"	91°56'33"	3267050	602475
	70	31°	29°31'27"	91°56'03"	3266535	603287
	69	31°	29°31'21"	91°55'54"	3266352	603531
	68	37°	29°31'18"	91°55'49"	3266261	603667
	67	35°	29°31'09"	91°55'17"	3265992	604531
	66	39°	29°31'03"	91°55'07"	3265810	604802
	65	18°	29°31'00"	91°55'00"	3265719	604991
	64	4°	29°30'59"	91°54'50"	3265691	605260
	63	280°	29°30'59"	91°54'45"	3265692	605395
	62	32°	29°30'54"	91°54'20"	3265545	606069
	61	41°	29°30'27"	91°53'44"	3264723	607047
	60	41°	29°30'27"	91°53'44"	3264723	607047
	59	54°	29°30'05"	91°53'13"	3264053	607888
	58	0°	29°29'56"	91°52'59"	3263780	608267
	57	2°	29°30'06"	91°52'21"	3264098	609288
	56	10°	29°30'03"	91°52'00"	3264011	609854
	55	0°	29°29'24"	91°51'15"	3262822	611078
	54	65°	29°28'51"	91°51'01"	3261810	611465
	53	38°	29°28'41"	91°50'50"	3261505	611764
	52	8°	29°28'37"	91°50'33"	3261387	612223
	51	4°	29°28'36"	91°50'04"	3261364	613004
South Point	50	29°	29°28'32"	91°49'41"	3261247	613625
South Point	49	49°	29°28'25"	91°49'32"	3261034	613870
South Point	48	49°	29°28'25"	91°49'32"	3261034	613870
South Point	47	355°	29°28'12"	91°49'19"	3260637	614224
South Point	46	278°	29°28'15"	91°49'06"	3260733	614573
	45	28°	29°28'53"	91°47'34"	3261928	617039
	44	0°	29°28'48"	91°47'23"	3261777	617337
	43	332°	29°28'52"	91°46'48"	3261910	618278
	42	320°	29°29'15"	91°46'02"	3262631	619510
BICM segment #12 - South Point						
	41	233°	29°29'30"	91°45'58"	3263094	619612

Acadiana Bays Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
East Point	40	200°	29°29'30"	91°45'58"	3263094	619612
	39	265°	29°34'09"	91°41'56"	3271753	626033
BICM segment #26 - Atchafalaya Delta						
Atchafalaya Bird Islands	38					
Atchafalaya Bird Islands	37					
Atchafalaya Bird Islands	36					
Atchafalaya Bird Islands	35					
Atchafalaya Bird Islands	34					
Atchafalaya Bird Islands	33					
Atchafalaya Bird Islands	32					
Atchafalaya Bird Islands	31					
Pt au Fer	30	45°	29°19'37"	91°21'23"	3245331	659593
Pt au Fer	29	45°	29°19'28"	91°21'20"	3245055	659678
Pt au Fer	28	40°	29°19'19"	91°21'15"	3244779	659816
Pt au Fer	27	355°	29°19'04"	91°20'57"	3244325	660308
Pt au Fer	26	60°	29°18'55"	91°20'52"	3244049	660447
Pt au Fer	25	65°	29°18'46"	91°20'43"	3243776	660694
Pt au Fer	24	57°	29°18'33"	91°20'35"	3243379	660915
Pt au Fer	23	60°	29°18'34"	91°20'35"	3243409	660915
armored Pipeline canal	22	56°	29°18'18"	91°20'24"	3242921	661219
	21	58°	29°17'52"	91°20'04"	3242128	661770
	20	48°	29°17'40"	91°19'52"	3241764	662099
	19	49°	29°17'07"	91°19'21"	3240760	662950
	18	47°	29°16'50"	91°19'02"	3240244	663470
	17	47°	29°16'47"	91°18'59"	3240153	663553
	16	50°	29°16'38"	91°18'51"	3239879	663772
	15	52°	29°16'04"	91°18'22"	3238843	664570
	14	49°	29°16'02"	91°18'20"	3238782	664625
	13	44°	29°15'52"	91°18'08"	3238479	664953
	12	44°	29°15'47"	91°18'03"	3238327	665091
	11	46°	29°15'41"	91°17'56"	3238145	665282
	10	44°	29°15'30"	91°17'43"	3237812	665638
	9	42°	29°15'26"	91°17'38"	3237691	665775

Acadiana Bays Location	frame no.	camera angle	Latitude	Longitude	Northing	Easting
	8	38°	29°15'20"	91°17'29"	3237510	666021
	7	30°	29°15'16"	91°17'23"	3237389	666184
	6	29°	29°14'54"	91°16'45"	3236727	667220
	5	315°	29°14'54"	91°16'45"	3236727	667220

Teche Delta	APS05R digital 9/30/2005		(location data based on 2006/07 GPS data)		UTM		
Location	frame no.	camera angle	latitude	longitude	Northing	Easting	
BICM segment #31 -Point au Fer	9/28/2005						
Point au Fer	30	45º	29º19'37"	91º21'23"	3245331	659593	
	29	45º	29º19'28"	91º21'20"	3245055	659678	
	28	40º	29º19'19"	91º21'15"	3244779	659816	
	27	355º	29º19'04"	91º20'57"	3244325	660308	
	26	60º	29º18'55"	91º20'52"	3244049	660447	
	25	65º	29º18'46"	91º20'43"	3243776	660694	
	24	57º	29º18'33"	91º20'35"	3243379	660915	
	23	60º	29º18'34"	91º20'35"	3243409	660915	
	22	56º	29º18'18"	91º20'24"	3242921	661219	
	21	58º	29º17'52"	91º20'04"	3242128	661770	
	20	48º	29º17'40"	91º19'52"	3241764	662099	
	19	49º	29º17'07"	91º19'21"	3240760	662950	
	18	47º	29º16'50"	91º19'02"	3240244	663470	
	17	47º	29º16'47"	91º18'59"	3240153	663553	
	16	50º	29º16'38"	91º18'51"	3239879	663772	
	15	52º	29º16'04"	91º18'22"	3238843	664570	
	armored Pipeline canal	14	49º	29º16'02"	91º18'20"	3238782	664625
		13	44º	29º15'52"	91º18'08"	3238479	664953
		12	44º	29º15'47"	91º18'03"	3238327	665091
11		46º	29º15'41"	91º17'56"	3238145	665282	
10		44º	29º15'30"	91º17'43"	3237812	665638	

Teche Delta Location	frame no.	camera angle	latitude	longitude	Northing	Easting
	9	42°	29°15'26"	91°17'38"	3237691	665775
	8	38°	29°15'20"	91°17'29"	3237510	666021
	7	30°	29°15'16"	91°17'23"	3237389	666184
	6	29°	29°14'54"	91°16'45"	3236727	667220
	5	315°	29°14'54"	91°16'45"	3236727	667220
	4					
BICM segment #33 - Raccoon Island	9/30/2005					
platform off west end of RI	758					
Raccoon Island -west end	757	120°	29°04'30"	90°58'03"	3218001	697844
RI-spit	756	120°	29°04'29"	90°58'03"	3217970	697845
RI-spit	755	121°	29°04'28"	90°58'04"	3217939	697818
RI-spit	754	122°	29°04'24"	90°58'07"	3217814	697739
RI-spit	753	121°	29°04'21"	90°58'08"	3217721	697714
RI-spit	752	120°	29°04'19"	90°58'10"	3217659	697661
RI-spit	751	119°	29°04'16"	90°58'12"	3217566	697608
RI-spit	750	117°	29°04'14"	90°58'13"	3217504	697582
RI-spit	749	37°	29°03'42"	90°58'04"	3216523	697843
RI-spit	748					
RI-spit	747					
RI-spit	746					
RI-spit	745	23°	29°03'23"	90°57'01"	3215967	699557
RI-spit	744	26°	29°03'16"	90°56'44"	3215760	700021
RI-spit	743	27°	29°03'15"	90°56'41"	3215730	700102
RI-spit	742					
RI-spit	741	12°	29°03'11"	90°56'28"	3215613	700456
RI	740	22°	29°03'07"	90°56'12"	3215498	700891
RI	739	25°	29°03'06"	90°56'10"	3215468	700946
RI	738	26°	29°03'03"	90°56'03"	3215379	701137
RI	737	36°	29°02'59"	90°55'55"	3215259	701355
seawall pan	736					
RI	735	22°	29°02'52"	90°55'41"	3215051	701738
RI	734	19°	29°02'51"	90°55'39"	3215021	701792
RI - west breakwater	733	17°	29°02'50"	90°55'34"	3214992	701928

Teche Delta Location	frame no.	camera angle	latitude	longitude	Northing	Easting
RI breakwater	732	16°	29°02'50"	90°55'33"	3214993	701955
RI breakwater	731	15°	29°02'49"	90°55'30"	3214963	702037
RI breakwater	730	11°	29°02'47"	90°55'24"	3214905	702200
RI breakwater	729	11°	29°02'44"	90°55'18"	3214815	702364
RI breakwater	728	14°	29°02'40"	90°55'12"	3214695	702529
RI-east end	727	5°	29°02'38"	90°55'07"	3214636	702665
RI-east end	726	0°	29°02'36"	90°54'53"	3214581	703045
RI-east end	725	323°	29°02'41"	90°54'41"	3214741	703367
RI-east end	724	285°	29°02'47"	90°54'22"	3214934	703878
RI-east end	723	285°	29°02'51"	90°54'17"	3215060	704011
RI-east end	722	285°	29°02'54"	90°54'12"	3215155	704144
RI-east end	721	275°	29°02'59"	90°54'10"	3215310	704196
RI-east end	720	275°	29°03'06"	90°54'09"	3215526	704219
RI-east end	719	270°	29°03'11"	90°54'09"	3215680	704216
RI-east end	718	270°	29°03'17"	90°54'09"	3215864	704213
BICM segment #34 - Whiskey Island						
Whiskey Island - west end	717	97°	29°03'27"	90°52'50"	3216210	706344
Whl - spit	716	99°	29°03'23"	90°52'51"	3216087	706320
Whl - spit	715	99°	29°03'17"	90°52'52"	3215901	706296
Whl - spit	714	0°	29°02'52"	90°52'21"	3215147	707148
Whl - spit	713	1°	29°02'52"	90°52'13"	3215151	707365
Whl - spit	712	359°	29°02'59"	90°51'24"	3215390	708686
Whl - spit	711	13°	29°02'58"	90°51'17"	3215363	708876
Whl - spit	710	17°	29°02'56"	90°51'10"	3215305	709067
Whl - spit	709	25°	29°02'51"	90°50'57"	3215157	709421
Whl - spit	708	25°	29°02'49"	90°50'51"	3215099	709585
Whl	707	30°	29°02'46"	90°50'46"	3215009	709722
Whl	706	27°	29°02'42"	90°50'37"	3214890	709967
Whl	705	26°	29°02'40"	90°50'33"	3214831	710077
Whl	704	19°	29°02'38"	90°50'28"	3214771	710213
Whl	703	12°	29°02'36"	90°50'18"	3214715	710485
Whl	702	282°	29°02'35"	90°50'13"	3214686	710621
Whl	701	7°	29°02'35"	90°50'08"	3214689	710756

Teche Delta Location	frame no.	camera angle	latitude	longitude	Northing	Easting
Whl	700	5°	29°02'35"	90°49'56"	3214695	711081
Whl	699	0°	29°02'35"	90°49'51"	3214697	711216
Whl	698	1°	29°02'35"	90°49'47"	3214699	711324
Whl	697	3°	29°02'35"	90°49'28"	3214709	711838
Whl	696	356°	29°02'34"	90°49'17"	3214684	712136
Whl	695	347°	29°02'36"	90°49'06"	3214751	712433
Whl	694	337°	29°02'38"	90°48'58"	3214816	712648
Whl	693	328°	29°02'45"	90°48'43"	3215039	713050
Whl	692	322°	29°02'48"	90°48'36"	3215135	713238
Whl	691	320°	29°02'55"	90°48'29"	3215354	713423
Whl - east end	690	320°	29°03'02"	90°48'18"	3215575	713717
Whl - east end	689	270°	29°03'06"	90°48'13"	3215701	713850
Whl - east end	688	275°	29°03'06"	90°48'13"	3215701	713850
Whl - east end	687	310°	29°03'12"	90°48'07"	3215889	714008
BICM segment #35 - Trinity Island						
Trinity Island - west end	686	59°	29°02'51"	90°47'04"	3215274	715725
Trl - west end	685	55°	29°02'46"	90°47'00"	3215122	715836
WI - east end	684					
Trl - west end	683	59°	29°02'51"	90°47'04"	3215274	715725
Trl - west end	682	55°	29°02'46"	90°47'00"	3215122	715836
Trl - west end	681	21°	29°02'22"	90°46'32"	3214397	716607
Trl - west end	680	340°	29°02'25"	90°45'49"	3214512	717769
Trl	679	344°	29°02'27"	90°45'43"	3214576	717930
Trl	678	342°	29°02'30"	90°45'33"	3214674	718199
Trl	677	342°	29°02'32"	90°45'25"	3214740	718414
Trl	676	347°	29°02'34"	90°45'16"	3214806	718657
Trl	675	338°	29°02'37"	90°45'07"	3214903	718898
Trl	674	357°	29°02'39"	90°44'55"	3214971	719222
Trl	673	3°	29°02'38"	90°44'55"	3214940	719222
Trl	672	351°	29°02'39"	90°44'33"	3214982	719817
Trl	671	347°	29°02'41"	90°44'23"	3215049	720086
Trl	670	349°	29°02'43"	90°44'13"	3215116	720356
Trl	669	347°	29°02'45"	90°44'05"	3215181	720571

Teche Delta Location	frame no.	camera angle	latitude	longitude	Northing	Easting
Trl	668	346°	29°02'42"	90°43'56"	3215094	720816
Trl	667	342°	29°02'43"	90°43'50"	3215127	720978
Trl	666	347°	29°02'44"	90°43'43"	3215162	721167
Trinity twin houses	665	348°	29°02'45"	90°43'37"	3215196	721329
Trinity twin houses	664	348°	29°02'46"	90°43'32"	3215229	721463
Trinity twin houses	663	346°	29°02'46"	90°43'28"	3215231	721572
Trl	662	346°	29°02'47"	90°43'24"	3215264	721679
Trl	661	351°	29°02'48"	90°43'19"	3215298	721814
Trinity Is -Madonna	660	20°	29°02'49"	90°43'15"	3215330	721921
Trinity Is -Madonna	659	355°	29°02'49"	90°43'05"	3215336	722192
Trl	658	347°	29°02'51"	90°42'56"	3215402	722434
Trl	657	343°	29°02'53"	90°42'47"	3215468	722677
Trl	656	340°	29°02'56"	90°42'37"	3215566	722945
Trl	655	341°	29°02'58"	90°42'30"	3215631	723134
Trl	654	356°	29°03'00"	90°42'15"	3215701	723538
Trl	653	348°	29°03'01"	90°42'02"	3215738	723889
Trl	652	354°	29°03'03"	90°41'52"	3215805	724159
	651	330°	29°03'07"	90°41'37"	3215936	724562
BICM segment #36 - East Island						
East Isle	650	355°	29°03'13"	90°41'19°"	3216130	725045
El	649	0°	29°03'13"	90°41'13°"	3216134	725208
El	648	335°	29°03'17"	90°40'55°"	3216266	725692
El	647	347°	29°03'25"	90°40'34°"	3216524	726255
El	646	348°	29°03'27"	90°40'23°"	3216591	726552
El	645	342°	29°03'31"	90°40'05°"	3216724	727036
El	644	343°	29°03'31"	90°40'02°"	3216726	727117
El	643	20°	29°03'32"	90°39'55°"	3216760	727306
East Isle toward east	642	0°	29°03'32"	90°39'55°"	3216760	727306
El	641	0°	29°03'31"	90°39'50°"	3216732	727442
El	640	340°	29°03'30"	90°39'27°"	3216714	728065
El	639	340°	29°03'35"	90°39'13°"	3216875	728441
El	638	32°	29°03'37"	90°39'08°"	3216939	728575
El toward east end	637	345°	29°03'42"	90°38'55°"	3217100	728923

Teche Delta Location	frame no.	camera angle	latitude	longitude	Northing	Easting
El east end	636	335°	29°03'47"	90°38'46"	3217259	729164
El east end	635	15°	29°03'49"	90°38'36"	3217326	729433
El E end platform	634	15°	29°03'55"	90°38'08"	3217526	730187
El E end platform	633	15°	29°03'56"	90°38'05"	3217559	730267
El E end platform	632	270°	29°04'22"	90°37'54"	3218365	730549
El E end	631	240°	29°04'27"	90°37'57"	3218517	730464
El E end	630	229°	29°04'32"	90°38'02"	3218669	730326
El E end	629	289°	29°04'09"	90°37'52"	3217966	730611
El E end	628	304°	29°04'11"	90°37'52"	3218027	730610
El E end	627	242°	29°04'26"	90°37'57"	3218487	730465
Wine Island	626	319°	29°05'18"	90°36'46"	3220126	732353
Wine Island	625	321°	29°05'20"	90°36'43"	3220190	732433
Wine Island	624	329°	29°05'24"	90°36'35"	3220317	732647
Wine Island	623	323°	29°05'29"	90°36'28"	3220475	732833
Wine Island	622	312°	29°05'32"	90°36'23"	3220570	732966
Wine Island	621	306°	29°05'32"	90°36'12"	3220576	733264

Lafourche Delta	APS05R digital 9/30/2005		(location data based on 2006/07 GPS data)		UTM	
Location	frame no.	camera angle	latitude	longitude	Northing	Easting
BICM segment #37 - Timbalier Island - West End						
West Timbalier Island - west end	620	119°	29°05'59"	90°33'30"	3221497	737628
WTI - west end	619	118°	29°05'53"	90°33'33"	3221311	737550
WTI - west	618	116°	29°05'46"	90°33'38"	3221093	737420
	617	74°	29°05'11"	90°33'50"	3220008	737117
	616	15°	29°04'53"	90°33'11"	3219476	738184
WTI - ridges	615	10°	29°04'49"	90°32'45"	3219367	738890
	614	28°	29°04'43"	90°32'25"	3219194	739434
	613	12°	29°04'38"	90°32'05"	3219051	739979
	612	21°	29°04'36"	90°31'58"	3218994	740169

Lafourche Delta Location	frame no.	camera angle	latitude	longitude	Northing	Easting
	611	24°	29°04'33"	90°31'51°"	3218905	740360
	610	28°	29°04'26"	90°31'31°"	3218701	740906
	609	28°	29°04'23"	90°31'26°"	3218612	741043
	608	19°	29°04'19"	90°31'14°"	3218495	741370
	607	17°	29°04'17"	90°31'08°"	3218437	741534
	606	19°	29°04'15°"	90°31'00°"	3218380	741752
	605					
	604	28°	29°04'08°"	90°30'42°"	3218175	742243
	603	26°	29°04'03°"	90°30'32°"	3218026	742517
	602	21°	29°04'01°"	90°30'26°"	3217968	742680
	601	19°	29°03'55°"	90°30'07°"	3217794	743198
	600	12°	29°03'53°"	90°29'57°"	3217739	743470
	599	9°	29°03'52°"	90°29'52°"	3217711	743606
	598	19°	29°03'49°"	90°29'40°"	3217625	743933
	597	17°	29°03'48°"	90°29'36°"	3217597	744042
BICM segment #38 - East Timbalier Island						
Timbalier seawall Timbalier seawall Timbalier seawall Timbalier seawall Timbalier seawall Timbalier seawall looking back at seawall looking back at seawall	596	17°	29°03'44°"	90°29'23°"	3217481	744396
	595	20°	29°03'41°"	90°29'14°"	3217394	744641
	594	24°	29°03'38°"	90°29'04°"	3217307	744914
	593	24°	29°03'32°"	90°28'59°"	3217125	745053
	592	80°	29°03'35°"	90°29'00°"	3217217	745024
	591	45°	29°03'29°"	90°28'54°"	3217036	745190
	590	21°	29°03'27°"	90°28'49°"	3216977	745327
	589	15°	29°03'24°"	90°28'36°"	3216892	745681
	588	11°	29°03'23°"	90°28'30°"	3216865	745844
	587	11°	29°03'22°"	90°28'26°"	3216837	745952
	586	7°	29°03'20°"	90°28'10°"	3216784	746387
	585	98°	29°03'19°"	90°28'04°"	3216757	746550
	584	98°	29°03'19°"	90°28'04°"	3216757	746550
	583	8°	29°03'18°"	90°28'00°"	3216729	746659
	582	357°	29°03'18°"	90°27'28°"	3216747	747524
	581	359°	29°03'19°"	90°27'20°"	3216783	747740
	580	359°	29°03'19°"	90°27'13°"	3216787	747929

Lafourche Delta Location	frame no.	camera angle	latitude	longitude	Northing	Easting
platform	579	1°	29°03'19°"	90°27'10°"	3216788	748011
	578	1°	29°03'18°"	90°26'56°"	3216766	748390
	577	0°	29°03'18°"	90°26'46°"	3216772	748661
	576					
	575	347°	29°03'19°"	90°26'38°"	3216807	748876
	574	359°	29°03'23°"	90°26'19°"	3216942	749388
	573	304°	29°03'23°"	90°26'19°"	3216942	749388
	572	13°	29°04'01°"	90°24'25°"	3218179	752446
BICM segment #39 - East Timbalier Island						
East Timbalier Island	571	83°	29°03'45°"	90°20'59°"	3217810	758030
	570	81°	29°03'38°"	90°20'58°"	3217595	758062
	569	81°	29°03'34°"	90°20'58°"	3217472	758065
	568	75°	29°03'26°"	90°20'55°"	3217228	758152
	567	82°	29°03'40°"	90°20'59°"	3217656	758034
	566	81°	29°03'34°"	90°20'58°"	3217472	758065
	565	332°	29°03'14°"	90°20'20°"	3216880	759107
	564	330°	29°03'19°"	90°20'09°"	3217040	759401
	563	320°	29°03'25°"	90°20'00°"	3217230	759641
	562	321°	29°03'29°"	90°19'54°"	3217357	759800
	561	317°	29°03'35°"	90°19'45°"	3217548	760039
	560	338°	29°03'39°"	90°19'38°"	3217675	760226
	559	328°	29°03'42°"	90°19'31°"	3217772	760413
	558	339°	29°03'45°"	90°19'24°"	3217868	760601
	557	342°	29°03'48°"	90°19'13°"	3217968	760896
	556	338°	29°03'50°"	90°19'06°"	3218033	761084
	555	341°	29°03'54°"	90°18'55°"	3218163	761379
	554	345°	29°03'56°"	90°18'48°"	3218229	761567
	553	353°	29°03'57°"	90°18'40°"	3218265	761783
	552	356°	29°03'58°"	90°18'32°"	3218301	761998
	551	356°	29°04'04°"	90°18'07°"	3218501	762670
	550	305°	29°04'05°"	90°18'02°"	3218535	762805
	549	0°	29°04'12°"	90°17'22°"	3218775	763882
	548	341°	29°04'13°"	90°17'18°"	3218809	763990
ETI - E facility						

Lafourche Delta Location	frame no.	camera angle	latitude	longitude	Northing	Easting
ETI - E facility	547	346°	29°04'16"	90°17'06"	3218908	764312
ETI - E facility	546	330°	29°04'18"	90°16'59"	3218974	764500
	545	313°	29°04'21"	90°16'52"	3219071	764687
	544	308°	29°04'32"	90°16'47"	3219413	764815
ETI- East end long shot	543	287°	29°04'44"	90°16'40"	3219787	764996
ETI- East end long shot	542	270°	29°04'49"	90°16'39"	3219942	765019
BICM segment #40 - Raccoon Spit						
Belle Pass Spit	541	8°	29°05'31"	90°15'41"	3221271	766558
Belle Pass spit	540	11°	29°05'28"	90°15'02"	3221203	767615
Belle Pass spit	539	11°	29°05'26"	90°14'51"	3221149	767914
Belle Pass spit	538	12°	29°05'25"	90°14'44"	3221122	768104
	537	8°	29°05'23"	90°14'35"	3221067	768349
Belle Pass spit	536	4°	29°05'23"	90°14'24"	3221074	768647
Belle Pass spit	535	20°	29°05'21"	90°14'18"	3221016	768810
Belle Pass	534	50°	29°05'15"	90°14'08"	3220837	769085
Belle Pass	533	80°	29°05'13"	90°14'05"	3220778	769168
Belle Pass	532	80°	29°05'10"	90°14'01"	3220688	769278
BICM segment #41 - Fourchon Beach						
Belle Pass	531	5°	29°04'58"	90°13'30"	3220338	770125
Belle Pass	530	2°	29°04'58"	90°13'24"	3220342	770288
	529	0°	29°04'59"	90°13'19"	3220376	770422
	528	285°	29°05'15"	90°13'06"	3220877	770762
	527	332°	29°05'08"	90°12'58"	3220666	770984
	526	332°	29°05'16"	90°12'43"	3220922	771384
	525	331°	29°05'23"	90°12'28"	3221147	771784
	524	320°	29°05'32"	90°12'12"	3221435	772210
	523	330°	29°05'39"	90°12'00"	3221658	772530
	522	342°	29°05'43"	90°11'50"	3221788	772797
	521	335°	29°05'44"	90°11'45"	3221822	772932
	520	329°	29°05'48"	90°11'43"	3221946	772983
Port Fourchon	519	339°	29°05'52"	90°11'30"	3222078	773332
	518	334°	29°05'58"	90°11'22"	3222268	773544
	517	334°	29°05'59"	90°11'15"	3222303	773732

Lafourche Delta Location	frame no.	camera angle	latitude	longitude	Northing	Easting
Fourchon Road	516	331°	29°06'03"	90°11'06"	3222432	773973
BICM segment #42 - Caminada Headland						
Fourchon beach	515	327°	29°06'06"	90°10'59"	3222529	774160
	514	325°	29°06'11"	90°10'52"	3222688	774346
	513	321°	29°06'17"	90°10'43"	3222878	774585
B. Champlagne	512	307°	29°06'24"	90°10'35"	3223099	774796
Bay Champlagne	511	317°	29°06'33"	90°10'27"	3223381	775005
	510	327°	29°06'39"	90°10'16"	3223573	775298
	509	327°	29°06'48"	90°10'01"	3223860	775697
	508	333°	29°06'55"	90°09'49"	3224083	776017
	507	331°	29°07'00"	90°09'39"	3224244	776284
	506	328°	29°07'05"	90°09'30"	3224404	776523
	505	320°	29°07'12"	90°09'19"	3224627	776815
	504	325°	29°07'20"	90°09'07"	3224881	777134
	503	322°	29°07'29"	90°08'54"	3225167	777479
	502	325°	29°07'35"	90°08'44"	3225358	777745
LOOP	501	325°	29°07'40"	90°08'36"	3225517	777957
LOOP	500	327°	29°07'43"	90°08'31"	3225613	778090
	499	325°	29°07'48"	90°08'22"	3225773	778330
	498	324°	29°07'53"	90°08'15"	3225931	778515
	497	322°	29°07'58"	90°08'06"	3226091	778755
	496	327°	29°07'55"	90°08'05"	3225999	778784
	495	328°	29°08'12"	90°07'43"	3226537	779366
	494	322°	29°08'19"	90°07'32"	3226760	779658
	493	324°	29°08'26"	90°07'21"	3226983	779951
	492	324°	29°08'32"	90°07'13"	3227173	780162
	491	324°	29°08'38"	90°07'02"	3227365	780455
	490	324°	29°08'44"	90°06'53"	3227556	780694
	489	328°	29°08'51"	90°06'41"	3227780	781013
	488	323°	29°09'00"	90°06'25"	3228067	781439
	487	314°	29°09'07"	90°06'18"	3228288	781623
	486	315°	29°09'13"	90°06'10"	3228478	781835
	485	312°	29°09'17"	90°06'06"	3228604	781940

Lafourche Delta Location	frame no.	camera angle	latitude	longitude	Northing	Easting
	484	316°	29°09'24"	90°05'59"	3228824	782124
	483	322°	29°09'27"	90°05'54"	3228920	782256
	482	325°	29°09'33"	90°05'45"	3229110	782495
	481	320°	29°09'39"	90°05'36"	3229301	782734
	480	323°	29°09'45"	90°05'27"	3229492	782973
	479	324°	29°09'50"	90°05'21"	3229650	783131
	478	330°	29°09'56"	90°05'10"	3229842	783424
	477	329°	29°10'00"	90°05'01"	3229971	783664
	476	321°	29°10'04"	90°04'55"	3230099	783823
	475	323°	29°10'18"	90°04'35"	3230543	784353
Elmers island	474	330°	29°10'48"	90°04'07"	3231486	785087
	473	331°	29°10'54"	90°03'41"	3231688	785785
	472	286°	29°11'04"	90°03'30"	3232004	786074
	471	329°	29°11'15"	90°03'13"	3232354	786525
	470	324°	29°11'33"	90°02'53"	3232922	787052
	469	263°	29°11'37"	90°02'38"	3233055	787454
	468	260°	29°11'50"	90°02'38"	3233456	787444
BICM segment #43 - Grand Isle						
Grand Isle - west jetty Grand Isle - west jetty GI bridge	467	323°	29°11'52"	90°02'21"	3233529	787902
	466	321°	29°11'55"	90°02'19"	3233623	787954
	465	307°	29°11'58"	90°02'16"	3233717	788032
	464	301°	29°12'02"	90°02'14"	3233842	788083
	463	300°	29°12'06"	90°02'11"	3233967	788161
	462	306°	29°12'11"	90°02'08"	3234123	788238
	461	318°	29°12'15"	90°02'02"	3234250	788397
	460	316°	29°12'18"	90°01'58"	3234345	788503
	459	314°	29°12'23"	90°01'54"	3234502	788607
	458	314°	29°12'29"	90°01'48"	3234691	788765
	457	315°	29°12'32"	90°01'42"	3234788	788925
	456	314°	29°12'37"	90°01'38"	3234944	789029
	455	315°	29°12'40"	90°01'33"	3235040	789162
	454	319°	29°12'44"	90°01'29"	3235166	789266
	453	321°	29°12'47"	90°01'23"	3235263	789426

Lafourche Delta Location	frame no.	camera angle	latitude	longitude	Northing	Easting
	452	325°	29°12'51"	90°01'19"	3235388	789531
	451	325°	29°12'53"	90°01'12"	3235455	789719
	450	325°	29°12'59"	90°01'08"	3235642	789822
	449	321°	29°13'02"	90°01'00"	3235740	790036
	448	322°	29°13'06"	90°00'55"	3235867	790168
	447	326°	29°13'09"	90°00'50"	3235963	790301
	446	327°	29°13'12"	90°00'44"	3236059	790460
	445	322°	29°13'16"	90°00'38"	3236187	790619
	444	323°	29°13'20"	90°00'33"	3236313	790751
	443	330°	29°13'23"	90°00'26"	3236410	790938
	442	330°	29°13'24"	90°00'17"	3236447	791180
	441	335°	29°13'26"	90°00'10"	3236514	791368
	440	229°	29°13'31"	90°00'04"	3236672	791526
	439	327°	29°13'37"	89°59'57"	3236862	791711
	438	326°	29°13'41"	89°59'47"	3236992	791978
	437	325°	29°13'44"	89°59'40"	3237089	792164
	436	325°	29°13'48"	89°59'35"	3237216	792296
	435	328°	29°13'51"	89°59'29"	3237312	792456
	434	330°	29°13'55"	89°59'23"	3237440	792615
	433	328°	29°13'58"	89°59'15"	3237538	792829
	432	333°	29°14'00"	89°59'09"	3237603	792989
	431	342°	29°14'03"	89°59'03"	3237700	793149
	430	339°	29°14'06"	89°58'53"	3237799	793417
	429	333°	29°14'09"	89°58'44"	3237898	793657
	428	332°	29°14'12"	89°58'38"	3237994	793817
	427	333°	29°14'14"	89°58'33"	3238060	793950
	426	330°	29°14'17"	89°58'28"	3238155	794083
	425	332°	29°14'21"	89°58'22"	3238283	794242
	424	327°	29°14'24"	89°58'13"	3238381	794483
	423	338°	29°14'28"	89°58'09"	3238507	794588
	422	326°	29°14'32"	89°58'02"	3238636	794774
	421	326°	29°14'36"	89°57'56"	3238763	794932
	420	324°	29°14'40"	89°57'48"	3238892	795145

Lafourche Delta Location	frame no.	camera angle	latitude	longitude	Northing	Easting	
GI State Park GI State Park GI State Park GI State Park GI State Park GI State Park GI State Park GI State Park GI State Park GI east groin	419	327º	29º14'50"	89º57'43"	3239203	795272	
	418	310º	29º14'56"	89º57'29"	3239398	795646	
	417	309º	29º15'02"	89º57'24"	3239586	795776	
	416	301º	29º15'09"	89º57'20"	3239805	795878	
	415	303º	29º15'16"	89º57'15"	3240024	796008	
	414	303º	29º15'24"	89º57'10"	3240274	796136	
	413	304º	29º15'26"	89º57'04"	3240339	796297	
	412	304º	29º15'31"	89º57'02"	3240495	796347	
	411	298º	29º15'41"	89º56'58"	3240806	796447	
	410	302º	29º15'48"	89º56'52"	3241025	796603	
	409	283º	29º15'55"	89º56'49"	3241243	796679	
	408	255º	29º16'12"	89º56'48"	3241767	796692	
	BICM segment #44 - West Grand Terre						
	WGT - Ft Livingston	407	340º	29º16'13"	89º56'40"	3241804	796907
WGT - Ft Livingston	406	336º	29º16'16"	89º56'37"	3241898	796986	
	405	306º	29º16'16"	89º56'31"	3241903	797148	
	404	325º	29º16'18"	89º56'30"	3241965	797173	
	403	335º	29º16'22"	89º56'25"	3242092	797305	
	402	323º	29º16'25"	89º56'19"	3242188	797465	
	401	318º	29º16'35"	89º56'14"	3242500	797592	
	400	331º	29º16'39"	89º56'01"	3242632	797940	
	399	335º	29º16'48"	89º56'52"	3242873	796555	
	398	327º	29º16'51"	89º55'34"	3243021	798659	
	397	326º	29º16'56"	89º55'30"	3243178	798763	
	396	328º	29º17'00"	89º55'21"	3243307	799003	
	395	337º	29º17'04"	89º55'11"	3243438	799269	
	394	335º	29º17'11"	89º54'57"	3243663	799642	
	393	320º	29º17'15"	89º54'49"	3243792	799855	
	392	317º	29º17'21"	89º54'44"	3243980	799985	
	391	323º	29º17'27"	89º54'35"	3244172	800223	
	390	321º	29º17'32"	89º54'27"	3244331	800435	
WGT -east end	389	313º	29º17'41"	89º54'20"	3244614	800616	
WGT -east end	388	240º	29º17'46"	89º54'11"	3244774	800855	

Lafourche Delta Location	frame no.	camera angle	latitude	longitude	Northing	Easting
WGT -east end	387	240°	29°18'15"	89°54'04"	3245672	801021
BICM segment #45 - East Grand Terre						
East Grand Terre Island	386	22°	29°18'14"	89°53'02"	3245686	802695
	385	350°	29°18'16"	89°52'47"	3245758	803099
	384	343°	29°18'18"	89°52'38"	3245826	803340
	383	344°	29°18'22"	89°52'30"	3245955	803553
	382	348°	29°18'25"	89°52'14"	3246059	803982
	381	344°	29°18'31"	89°51'58"	3246256	804409
	380	336°	29°18'33"	89°51'42"	3246329	804839
	379	331°	29°18'42"	89°51'37"	3246610	804967

Modern Delta Location	APS05R digital 9/30/2005 frame no.	camera angle	(location data based on 2006/07 GPS data) latitude	longitude	UTM	
					Northing	Easting
BICM segment #46 - Chaland Headland						
Quatre Bayou Pass Point Cheniere Ronquille Pt Cheniere Ronquille Pt Cheniere Ronquille	377	349°	29°18'54"	89°50'33"	3247026	806685
	376	347°	29°18'55"	89°50'27"	3247061	806846
	375	39°	29°18'84"	89°50'15"	3247963	807146
	374	92°	29°19'00"	89°49'34"	3247254	808272
	373	41°	29°18'52"	89°49'16"	3247021	808765
	372	6°	29°18'50"	89°49'08"	3246965	808983
	371	6°	29°18'46"	89°48'43"	3246860	809661
	370	1°	29°18'45"	89°48'26"	3246842	810121
	369	4°	29°18'44"	89°48'12"	3246821	810499
	368	0°	29°18'46"	89°48'43"	3246860	809661
	367	11°	29°18'42"	89°47'44"	3246780	811257
	366	13°	29°18'41"	89°47'36"	3245490	761267
	365	13°	29°18'39"	89°47'17"	3246708	811988
	364	11°	29°18'38"	89°47'09"	3246683	812205

Lafourche Delta Location	frame no.	camera angle	latitude	longitude	Northing	Easting
Robinson Canal	363	21°	29°18'36"	89°46'59"	3246629	812477
	362	21°	29°18'33"	89°46'52"	3246542	812668
	361	5°	29°18'31"	89°46'38"	3246491	813048
	360	18°	29°18'29"	89°46'26"	3246438	813374
	359	1°	29°18'27"	89°46'16"	3246384	813645
	358	347°	29°18'29"	89°46'00"	3246457	814076
	357	12°	29°18'29"	89°45'50"	3246465	814346
	356	17°	29°18'28"	89°45'44"	3246438	814508
	355	3°	29°18'26"	89°45'31"	3246387	814861
	354	37°	29°18'25"	89°45'21"	3246363	815132
	353	10°	29°18'23"	89°45'09"	3246311	815458
	352	21°	29°18'18"	89°44'54"	3246168	815867
	351	15°	29°18'17"	89°44'43"	3246145	816165
Chaland Pass	350	3°	29°18'15"	89°44'29"	3246094	816544
	349	3°	29°18'18"	89°44'18"	3246195	816839
	348	356°	29°18'18"	89°44'13"	3246199	816974
	347	21°	29°18'13"	89°43'52"	3246060	817545
	346	18°	29°18'08"	89°43'37"	3245918	817954
Bayou Huertes	345	19°	29°18'06"	89°43'30"	3245861	818145
Bayou Huertes	344	2°	29°18'04"	89°43'17"	3245810	818498
	343	10°	29°18'03"	89°43'07"	3245786	818769
Bay Joe Wise	342	18°	29°18'01"	89°42'58"	3245732	819013
Bay Joe Wise	341	34°	29°18'00"	89°42'16"	3245733	820148
Bay Joe Wise	340	36°	29°17'54"	89°42'08"	3245554	820369
Bay Joe Wise	339	24°	29°17'49"	89°41'54"	3245411	820752
Bay Joe Wise	338	17°	29°17'41"	89°41'26"	3245186	821515
	337	15°	29°17'39"	89°41'21"	3245128	821652
Grand Bayou Pass	336	26°	29°17'36"	89°41'10"	3245044	821951
BICM segment #47 - Shell Island						
Grand Bayou Pass	335	21°	29°17'33"	89°41'03"	3244957	822143
	334	18°	29°17'30"	89°40'55"	3244871	822362
	333	6°	29°17'29"	89°40'44"	3244848	822659
	332	12°	29°17'27"	89°40'30"	3244797	823039

Lafourche Delta Location	frame no.	camera angle	latitude	longitude	Northing	Easting
Empire Empire jetties Empire jetties Empire jetties	331	10°	29°17'27"	89°40'27"	3244800	823120
	330	62°	29°16'26"	89°37'38"	3243051	827738
	329	33°	29°16'21"	89°37'32"	3242902	827905
	328	357°	29°16'19"	89°37'22"	3242848	828176
	327	13°	29°16'19"	89°37'12"	3242856	828446
	326	97°	29°15'31"	89°36'41"	3241401	829327
	325	99°	29°15'27"	89°36'42"	3241277	829303
	324	357°	29°15'07"	89°36'38"	3240664	829429
BICM segment #48 - Scofield						
Empire jetties English Bayou Scofield Bayou Scofield Bayou Plaq camps Plaq camps Bay Coquette	323	12°	29°15'07"	89°36'31"	3240670	829618
	322	27°	29°15'06"	89°36'18"	3240649	829970
	321	8°	29°15'02"	89°36'06"	3240535	830298
	320	13°	29°14'57"	89°35'29"	3240410	831302
	319	14°	29°14'51"	89°34'57"	3240251	832172
	318	9°	29°14'43"	89°34'33"	3240023	832827
	317	13°	29°14'37"	89°34'08"	3239858	833508
	316	12°	29°14'35"	89°33'55"	3239807	833861
	315	13°	29°14'31"	89°33'42"	3239694	834216
	314	21°	29°14'28"	89°33'30"	3239611	834543
	313	15°	29°14'25"	89°33'16"	3239530	834924
	312	35°	29°14'15"	89°32'48"	3239244	835690
	311	15°	29°14'10"	89°32'33"	3239102	836100
	310	11°	29°14'06"	89°32'18"	3238991	836508
	309	8°	29°14'04"	89°32'05"	3238939	836862
	308	9°	29°14'03"	89°31'55"	3238917	837133
	307	10°	29°14'01"	89°31'44"	3238864	837432
	306	27°	29°13'57"	89°31'34"	3238749	837706
	305	17°	29°13'54"	89°31'25"	3238663	837951
	304	9°	29°13'52"	89°31'18"	3238607	838142
	303	356°	29°13'53"	89°31'04"	3238649	838520
	302	5°	29°13'45"	89°30'46"	3238417	839014
	301	34°	29°13'39"	89°30'21"	3238253	839695
	300	34°	29°13'35"	89°30'13"	3238136	839914

Lafourche Delta Location	frame no.	camera angle	latitude	longitude	Northing	Easting
Sandy Point	299	27°	29°13'04"	89°29'24"	3237221	841267
Sandy Point	298	10°	29°12'59"	89°29'14"	3237075	841542
Sandy Point	297	300°	29°12'58"	89°28'50"	3237063	842192

Chandeleur Islands	APS05R digital 9/30/2005		(location data based on 2006/07 GPS data)		UTM	
Location	frame no.	camera angle	latitude	longitude	Northing	Easting
BICM segment #57 - Breton Island						
S Breton Island	276	~20°	~29°27'35"	89°12'27"	3264914	867883
	275	~15°	~29°27'35"	89°12'23"	3264918	867990
	274	~10°	~29°27'36"	89°12'14"	3264956	868232
	273	~5°	~29°27'36"	89°12'14"	3264956	868232
	272	~350°	~29°27'37"	89°12'02"	3264998	868555
	271	~350°	~29°27'38"	89°11'55"	3265035	868742
	270	342°	~29°27'53"	89°10'55"	3265550	870345
N Breton Island	269	271°	~29°29'29"	89°09'58"	3268559	871785
N BI	268	256°	29°29'39"	89°10'00"	3268865	871721
N BI	267	237°	29°29'49"	89°10'05"	3269169	871576
N BI	266	214°	29°30'03"	89°10'20"	3269587	871157
N BI	265	186°	29°30'05"	89°10'30"	3269639	870885
N BI	264	168°	29°30'05"	89°10'39"	3269632	870643
N BI	263	130°	29°29'56"	89°10'55"	3269340	870221
N BI	262	89°	29°29'38"	89°11'03"	3268778	870023
N BI	261	~87°	29°29'32"	89°10'59"	3268597	870137
N BI	260	21°	29°29'27"	89°10'59"	3268443	870142
N BI	259	0°	29°29'26"	89°10'30"	3268438	870925
N BI	258	359°	29°29'26"	89°10'19"	3268448	871222
N BI	257	213°	29°29'30"	89°10'10"	3268579	871460
N BI	256	276°	29°29'39"	89°10'07"	3268859	871532
N BI	255	274°	29°29'40"	89°09'39"	3268914	872286

Chandeleur Islands Location	frame no.	camera angle	latitude	longitude	Northing	Easting
MRGO channel markers	254	352°	29°30'24"	89°09'22"	3270285	872699
BICM segment #58 - Grand Gosier and Curlew Islands						
open water	253	350°	~29°30'42"	89°07'18"	3270951	876023
open water	252	290°	~29°32'24"	89°05'21"	3274200	879071
open water	251	290°	~29°33'37"	89°04'02"	3276522	881123
well head	250	290°	29°36'15"	89°00'13"	3281602	887125
open water	249	290°	~29°39'48"	88°57'00"	3288346	892093
BICM segment #59 - Chandeleur Islands						
S CI	248	~25°	29°43'40"	88°53'30"	3295696	897491
S CI shoal	247	~25°	29°44'11"	88°53'41"	3296641	897161
S CI	246	305°	29°46'54"	88°51'37"	3301784	900315
Monkey Bayou	245	303°	29°47'01"	88°51'32"	3302004	900442
Monkey Bayou	244	302°	29°47'07"	88°51'27"	3302194	900570
Monkey Bayou	243	299°	29°47'15"	88°51'22"	3302445	900695
Monkey Bayou	242	293°	29°47'23"	88°51'17"	3302697	900821
	241	289°	29°47'31"	88°51'14"	3302946	900893
	240	303°	29°47'59"	88°50'56"	3303827	901345
	239	292°	29°48'08"	88°50'50"	3304110	901497
	238	295°	29°48'16"	88°50'46"	3304360	901595
Dago Hole	237	294°	29°48'24"	88°50'42"	3304611	901694
Dago Hole	236	292°	29°48'33"	88°50'38"	3304892	901791
	235	288°	29°48'43"	88°50'34"	3305204	901888
	234	290°	29°48'57"	88°50'28"	3305641	902033
	233	305°	29°49'15"	88°50'27"	3306197	902040
	232	304°	29°49'24"	88°50'19"	3306482	902245
	231	301°	29°49'31"	88°50'14"	3306703	902372
	230	294°	29°49'46"	88°50'05"	3307174	902597
	229	293°	29°49'51"	88°50'02"	3307331	902672
	228	295°	29°50'01"	88°49'57"	3307644	902795
	227	288°	29°50'09"	88°49'53"	3307895	902894
	226	290°	~29°50'21"	88°49'48"	3308269	903015
	225	291°	29°50'33"	88°49'43"	3308644	903136
	224	291°	29°50'44"	88°49'38"	3308988	903258

Chandeleur Islands Location	frame no.	camera angle	latitude	longitude	Northing	Easting
Redfish Pt Redfish Pt Redfish Pt Redfish Pt	223	293°	29°50'55"	88°49'33"	3309332	903380
	222	282°	29°51'13"	88°49'26"	3309893	903548
	221	273°	29°51'38"	88°49'23"	3310667	903600
	220	273°	29°51'41"	88°49'23"	3310759	903597
	219	273°	29°51'46"	88°49'23"	3310913	903591
	218	273°	29°51'52"	88°49'23"	3311098	903584
	217	277°	29°52'03"	88°49'22"	3311438	903599
	216	282°	29°52'12"	88°49'20"	3311718	903643
	215	282°	29°52'20"	88°49'18"	3311966	903687
	214	285°	29°52'32"	88°49'14"	3312340	903781
	213	285°	29°52'37"	88°49'13"	3312495	903803
	212	281°	29°53'00"	88°49'07"	3313210	903938
	211	277°	29°53'11"	88°49'06"	3313550	903952
	210	277°	29°53'18"	88°49'05"	3313767	903971
	209	277°	29°53'21"	88°49'04"	3313860	903995
	208	276°	29°53'31"	88°49'03"	3314169	904011
	207	274°	29°53'36"	88°49'03"	3314323	904005
	206	274°	29°53'44"	88°49'02"	3314571	904023
	205	273°	29°53'51"	88°49'02"	3314787	904015
	204	272°	29°53'57"	88°49'01"	3314973	904035
	203	274°	29°54'06"	88°49'00"	3315251	904052
	202	276°	29°54'09"	88°49'00"	3315343	904048
	201	274°	29°54'19"	88°48'59"	3315653	904064
	300	273°	29°54'25"	88°48'59"	3315837	904057
	199	268°	29°54'34"	88°48'59"	3316115	904047
	198	268°	29°54'45"	88°48'59"	3316454	904035
	197	269°	29°55'00"	88°49'00"	3316915	903991
	196	270°	29°55'09"	88°49'00"	3317193	903981
	195	273°	29°55'21"	88°49'00"	3317562	903967
	194	204°	~29°55'27"	88°48'59"	3317748	903988
	193	273°	29°55'37"	88°48'58"	3318058	904003
	192	266°	29°55'47"	88°48'59"	3318365	903965
	191	265°	29°55'54"	88°48'59"	3318581	903957

Chandeleur Islands Location	frame no.	camera angle	latitude	longitude	Northing	Easting
Schooner Cove Schooner Cove longshot Schooner Cove longshot Schooner Bayside Schooner Bayside Schooner Bayside Schooner Bayside Schooner Cove north	190	263º	29º56'05"	88º49'01"	3318918	903891
	189	263º	29º56'17"	88º49'02"	3319287	903851
	188	263º	29º56'27"	88º49'04"	3319593	903786
	187	266º	29º56'44"	88º49'06"	3320115	903713
	186	263º	29º56'56"	88º49'07"	3320484	903673
	185	197º	29º57'30"	88º49'24"	3321515	903178
	184	183º	29º57'31"	88º49'32"	3321538	902962
	183	168º	29º57'30"	88º49'44"	3321495	902641
	182	86º	29º57'02"	88º50'33"	3320585	901358
	181	70º	29º56'47"	88º50'15"	3320140	901858
	180	0º	29º56'46"	88º49'42"	3320141	902745
	179	1º	29º56'46"	88º49'34"	3320149	902959
	178	358º	29º56'46"	88º49'23"	3320160	903255
	177	258º	29º57'02"	88º49'08"	3320668	903639
	176	258º	29º57'12"	88º49'10"	3320974	903574
open water	175	256º	29º57'19"	88º49'12"	3321188	903513
	174	255º	29º57'27"	88º49'14"	3321432	903450
	173	262º	29º57'35"	88º49'16"	3321677	903387
	172	265º	29º57'43"	88º49'17"	3321922	903351
	171	265º	29º57'49"	88º49'18"	3322106	903318
	170	266º	29º57'56"	88º49'18"	3322322	903310
	169	265º	29º58'04"	88º49'19"	3322568	903274
	168	263º	29º58'11"	88º49'20"	3322782	903239
	167	263º	29º58'21"	88º49'21"	3323090	903201
	166	245º	29º58'49"	88º49'33"	3323941	902848
	165	244º	29º58'52"	88º49'35"	3324031	902791
	164	246º	29º59'20"	88º49'49"	3324881	902384
	163	248º	29º59'36"	88º49'57"	3325366	902151
	162	249º	29º59'42"	88º50'00"	3325548	902064
	161	248º	¿30º00'04"	88º50'10"	0	963748
	160	244º	30º00'21"	88º50'19"	3326732	901511
	159	245º	30º00'28"	88º50'23"	3326943	901395
	158	247º	30º00'33"	88º50'25"	3327096	901336

Chandeleur Islands Location	frame no.	camera angle	latitude	longitude	Northing	Easting
open water open water tower Hewes Pt Hewes Pt	157	240°	30°00'39"	88°50'29"	3327277	901222
	156	150°	30°00'59"	88°50'48"	3327874	900690
	155	234°	30°01'16"	88°51'07"	3328380	900161
	154	250°	30°01'30"	88°51'16"	3328803	899904
	153					
	152	213°	30°02'23"	88°51'38"	3330415	899255
	151	162°	30°02'22"	88°51'56"	3330366	898774