H11245

NOAA FORM 76-35A
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

DESCRIPTIVE REPORT

Type of Survey: Hydrographic Multibeam & 200% Sidescan

Field No. : Sheet G

Registry No. : H11245

LOCALITY

State: Texas

General Locality: Gulf of Mexico

Sublocality: Eastern Approaches to Aransas Pass

2005

CHIEFS OF PARTY
Lynn Samuel, Joseph Burke

LIBRARY & ARCHIVES

DATE:

NOAA FORM 77-28 (11-72)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTRY NUMBER:
	HYDROGRAPHIC TITLE SHEET	H11245
		FIELD NUMBER: Sheet G

State: Texas

General Locality: Gulf of Mexico

Locality: Eastern Approaches to Aransas

Scale: 1:40,000 Date of Survey: September 2004 to August 2005

Instructions Dated: Febuary 12, 2004 Project Number: OPR-K379-KR

Vessels: M/V *Moana Wave (hull # 376)* and R/V *Emma McCall (hull # 354)*

Chiefs of Party: Lynn Samuel, Joseph Burke

Surveyed by: T. Shannon, D. Aucoin, S. Allemond, M. Barth, J. Belanger, D. Fontenot, J. Burke

Soundings taken by echosounder, hand lead line, or pole: Simrad EM3000 Multibeam Echosounder (2004)
Simrad EM3002 Multibeam Echosounder (2005)

Graphic record scaled by: N/A

Graphic record checked by: N/A

Protracted by: N/A Automated plot by: HP 1055 Plotter

Verification by: C&C Technologies Personnel

Soundings in: Feet: X Fathoms: _____ Meters: _____ at MLW: _____ MLLW: X

Remarks: Multibeam Hydrographic Survey of Sheet G
Data collection in meters, referenced to MLLW, later converted into feet
200% side scan sonar coverage
UTC time was used exclusively
Grab samples were taken
Tidal Zones: WGM228, WGM241, WGM242, WGM340
Tidal Station: 877-5870

NOAA FORM 77-28 SUPERSEDES FORM C & GS - 537

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***Data filed with original field data**.

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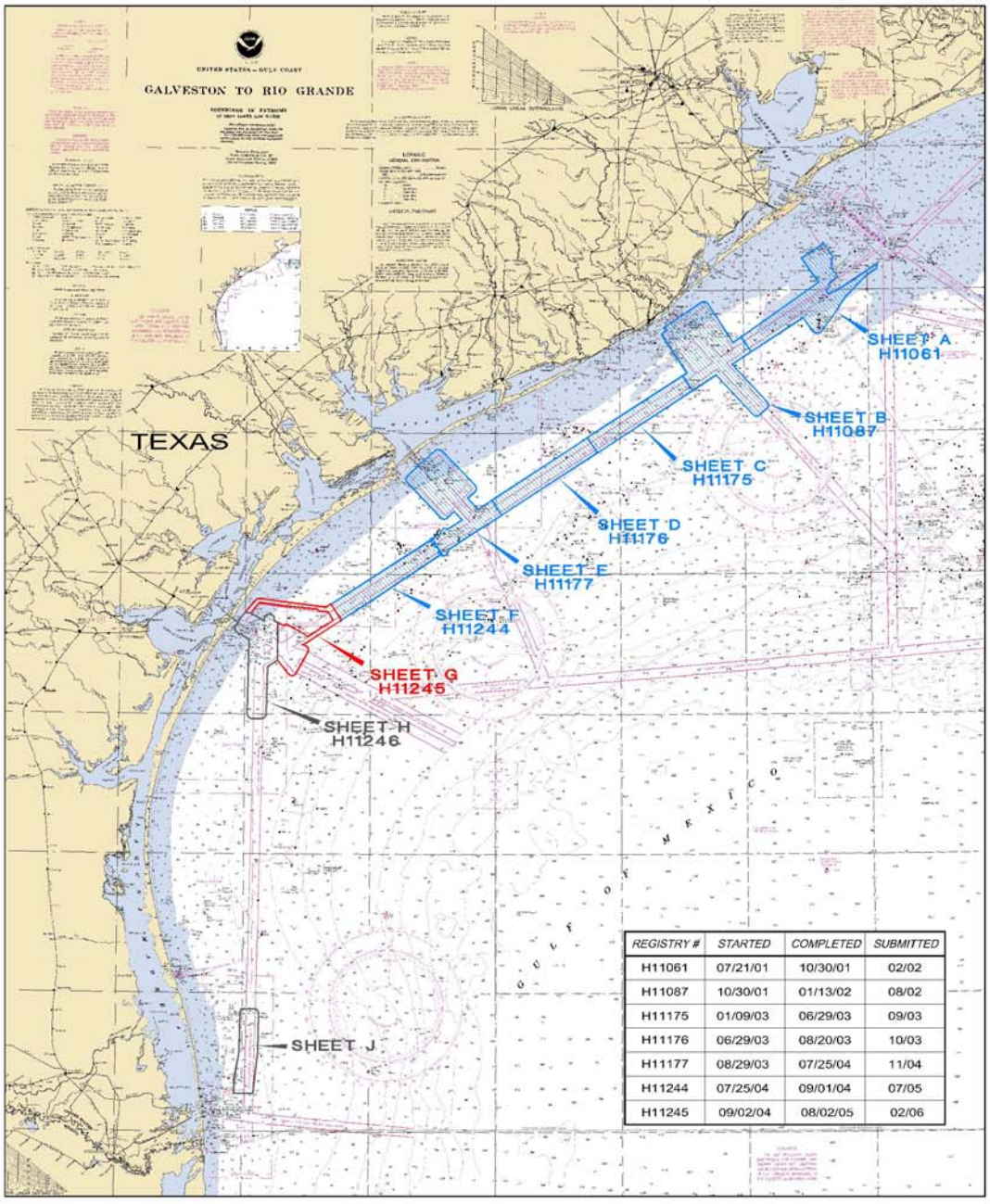
*Separates II	Sonar Contact Table Side Scan Data Reproductions Correlator Sheets
*Separates III	Sound Velocity Profile Data
*Separates IV	Statement of Work
*Separates V	Crossline Comparisons

***Data filed with original field data**.

A. AREA SURVEYED

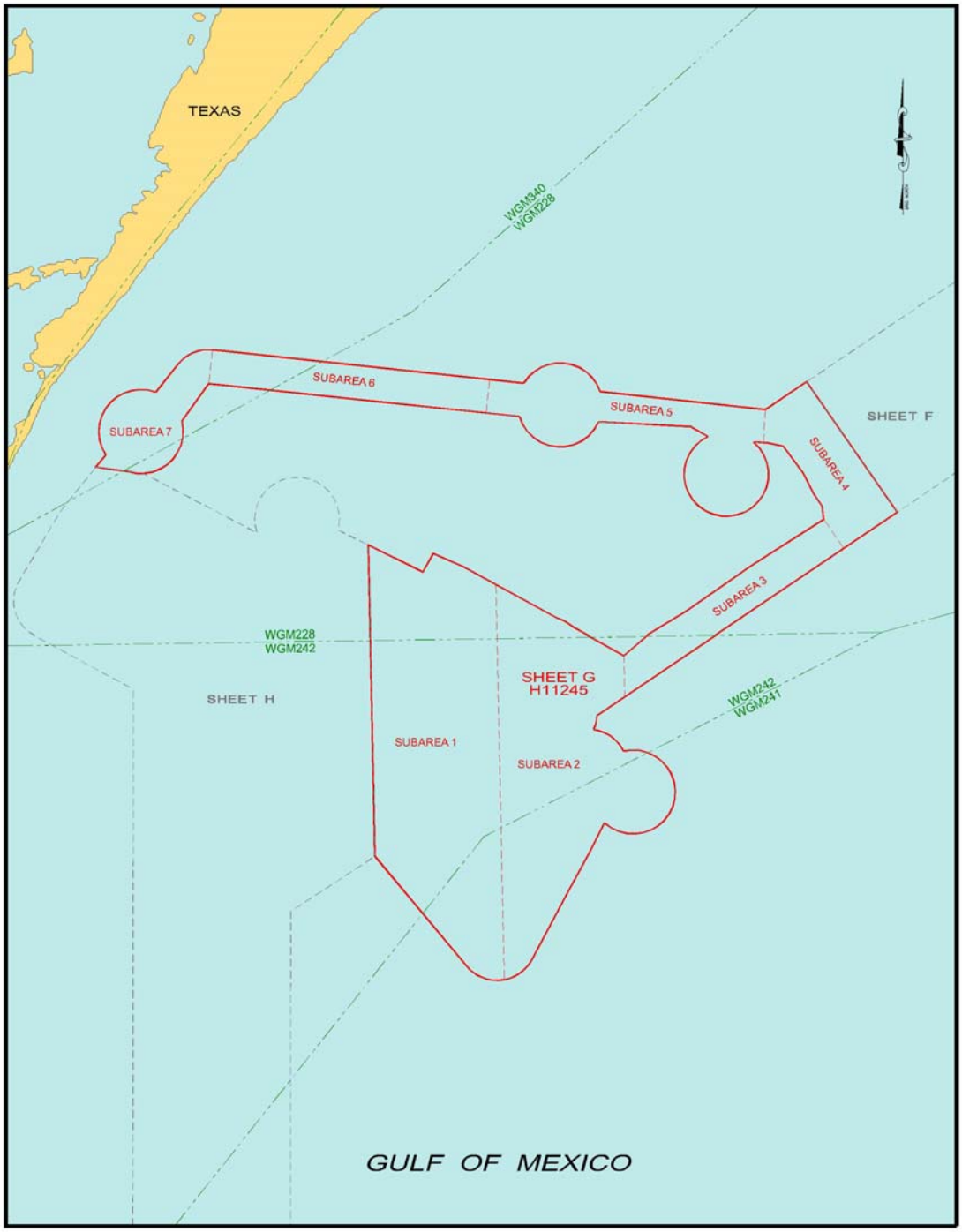
The survey area is located at the eastern approaches to Port Aransas, Texas in the Gulf of Mexico. The sketch on the following page shows the layout of the Project (OPR-K379-KR) and Sheet G (H11245). Water depths in the survey area range from 32 feet to 114 feet Mean Lower Low Water (MLLW). ***Concur***

The survey area was broken down into seven sub-areas to allow for more efficient data processing and data management. The sub-areas were defined based on the predicted data set sizes prior to survey commencement. Subareas 1 and 2 are within tidal zones WGM241, WGM242, and WGM228. Subarea 3 lies within tidal zones WGM242 and WGM228. Subareas 4 and 5 are within tidal zone WGM228. Subareas 6 and 7 lay within tidal zones WGM228 and WGM340. Tidal data from the Corpus Christi, Texas, tide station (8775870) was used to process data from all the above-mentioned tidal zones. A sketch showing the layout of the tidal zones and subareas is shown on page 3.



REGISTRY #	STARTED	COMPLETED	SUBMITTED
H11061	07/21/01	10/30/01	02/02
H11087	10/30/01	01/13/02	08/02
H11175	01/09/03	06/29/03	09/03
H11176	06/29/03	08/20/03	10/03
H11177	08/29/03	07/25/04	11/04
H11244	07/25/04	09/01/04	07/05
H11245	09/02/04	08/02/05	02/06

DATE: 01/31/2006 TIME: 13:09 FILENAME: J:\NOAA\SHEET-G_(7032-7290)\SHEET-INDEX-G.DWG


TEXAS
WGM340
WGM228
SUBAREA 6
SUBAREA 5
SUBAREA 7
SUBAREA 4
SHEET F
SUBAREA 3
WGM228
WGM242
SHEET G
H11245
SHEET H
WGM242
WGM241
SUBAREA 1
SUBAREA 2
GULF OF MEXICO

B. DATA ACQUISITION AND PROCESSING *See also the Evaluation Report.*

B.1 EQUIPMENT

System	Manufacturer	Model
Multibeam Sonar	Simrad	EM3000(2004) EM3002(2005)
Side Scan Sonar	Klein	5000
Single Beam Sonar	Echotrac (Moana)	3200
	Hydrotrac (Emma)	OHS 200/9
Motion Sensor	Applanix	POS/MVversion 3
Primary Positioning System	Applanix	POS/MVversion3
Secondary Positioning System	C-NAV	2000
Tertiary Positioning System	C-NAV	2000
Sound Speed at Transducer	Endeco	YSI
Sound Velocity Profiler	Seabird	SBE19

See the Data Acquisition and Processing Report* for a detailed description of the equipment used for hydrographic operations. The Data Acquisition and Processing Report* for project OPR-K379-KR was amended and resubmitted in conjunction with the previous survey, Sheet F (H11244), in July of 2005.

The R/V *Emma McCall* was used as the survey platform for hydrographic operations in 2004. The *Emma McCall* is 153 feet long and 36 feet wide with an approximate draft of 12 feet. The POS/MV IMU is the vessel reference point. The relevant offsets for the POS/MV location are presented in the following table where X is positive forward, Y is positive starboard, and Z is positive down.

**** Data filed at the Atlantic Hydrographic Branch (AHB).***

	Port EM3000 Head	Starboard EM3000 Head	Side Scan Sonar Tow Point	Port POS/MV Antenna	Starboard POS/MV Antenna
X Offset	- 0.73 m	- 0.58 m	-25.76 m	8.47 m	8.47 m
Y Offset	1.15 m	1.63 m	0.00 m	- 2.39 m	-0.39 m
Z Offset	4.43 m	4.43 m	-2.95 m	-10.78 m	-10.78 m

The M/V *Moana Wave*, a 210-foot vessel, was used as the platform for all hydrographic operations in 2005. The vessel is 36 feet wide an approximate draft of 13.3 feet. The location of the POS/MV IMU was the vessel reference point. The relevant offsets are presented in the following table where X is positive forward, Y is positive starboard, and Z is positive down.

	Port EM3000 Head	Starboard EM3000 Head	Side Scan Sonar Towpoint	Port POS/MV Antenna	Starboard POS/MV Antenna
X Offset	-0.59 m	0.58 m	-40.64 m	1.28 m	1.28 m
Y Offset	-4.89 m	4.92 m	-0.80 m	-1.002m	1.002 m
Z Offset	4.42 m	4.43 m	-6.14m	-7.90 m	-7.90 m

Detailed vessel diagrams and patch test results for both vessels are presented in the Data Acquisition and Processing Report.* ***Data filed at AHB.***

B.2 QUALITY CONTROL

Each subarea's survey lines were laid out to parallel the long axis of the subarea. The line spacing was set at 90 meters based on the criteria of 200 percent side scan coverage using Technique 1 as set forth in Section 6.1 of the "Specifications and Deliverables" document. The side scan sonar was operated at a 100 meter per channel range except for investigation lines where the range was typically reduced to 50 meters. The angular sector on the multibeam was set so that the criterion of two times water depth, as well as all accuracy, resolution, and detection criteria as set forth in Sections 5.2 and 5.3 of the "Specifications and Deliverables" document, were met. ***Concur***

The internal consistency of the multibeam depth values is quantified in the cross line statistics that were performed at the end of each main line. Cross lines were run prior to the collection of main line data so that quality control statistics could

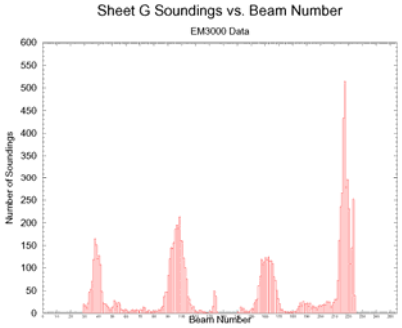
be performed on the data after each line. Based on pre-plot calculations, the total cross line miles was 148.7 M, while the total main line miles was 2098 M. The cross lines comprised about 7% of the total data set as compared to the main scheme lines. Rerun line miles are not included in these totals. As can be seen in the sample statistics found in Separates V, the main lines and cross lines depth values showed very good agreement. Each main line was compared to all cross lines for which there was overlapping data. The graphs shown in Separates V are a random sample of the graphs that were produced. The graphs show the mean difference, RMS difference, and confidence interval for each beam. The results show that the multibeam data was repeatable with 90% of the soundings within about 4 to 23 centimeters across the swath. ***Concur***

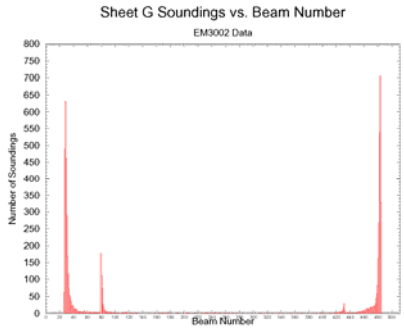
The following two histograms display the selected soundings for the smooth sheet. The first displays soundings collected with the EM 3000, while the second is for the EM 3002. The chart shows the number of soundings that were selected per beam number. The sounding distribution is dominated by the spatial distribution of soundings on the seafloor. The probability of a sounding from a particular beam making its way to the smooth sheet is inversely proportional to its corresponding density on the seafloor. The sparser soundings near the inner and outer edges of the swath are more likely to be selected because there are fewer to choose from. Because only the shoalest of the shoals are selected for the smooth sheet, very minor biases in areas of swath data can lead to uneven beam distributions. This can explain why more soundings were chosen from one head than from the other. This can also be affected by minor shoal biases in the outer beams caused by sound velocity variation in the water column. ***Concur***

The data collected in 2005 using the EM 3002 displays a bias towards the outer beams of both transducers. This is a result of applying shoal biased selection criteria over a flat bottom. As can be seen in the cross line comparison statistics,

the data is consistently repeatable, although ray bending is evident in the outer beams. The unconformity of the water body made variations in local sound velocity very difficult to account for. As the survey progressed, the number of sound velocity casts taken was increased. In addition, during collection of Sheet H, H11246, which will be submitted later this year, line plans were adjusted to further account for this.

Multibeam quality control procedures are outlined in Section B.1 of the Data Acquisition and Processing Report.





Sheet G (H11245) adjoins with Sheet F (H11244), which was submitted in July of 2005, and Sheet H (H11246), which will be submitted in the winter of 2006/2007. The junction between Sheets F and G was evaluated, and the soundings were found to agree to within 1 foot.

Due to shallow water depths in subarea 7, the side scan fish was towed slightly lower than the height specified in the specifications and deliverables. However, confidence checks indicated that the side scan was 'seeing' out to the full range.

All side scan lines collected during the 2005 field season contain a digital layback value. This value was calculated based on the amount of cable out, the fish height

off bottom, and the fish depth. In some instances, a faulty digital layback value of zero was recorded, resulting in layback values of zero. Lines containing digitally recorded zero laybacks appeared to have small gaps when mosaiced, although the data is present within the xtf. All lines containing zero laybacks were mosaiced using a manually input layback value.

The following outline describes the steps and parameter settings that should be used to convert side scan sonar XTF files, collected by C & C Technologies, into a Caris Project.

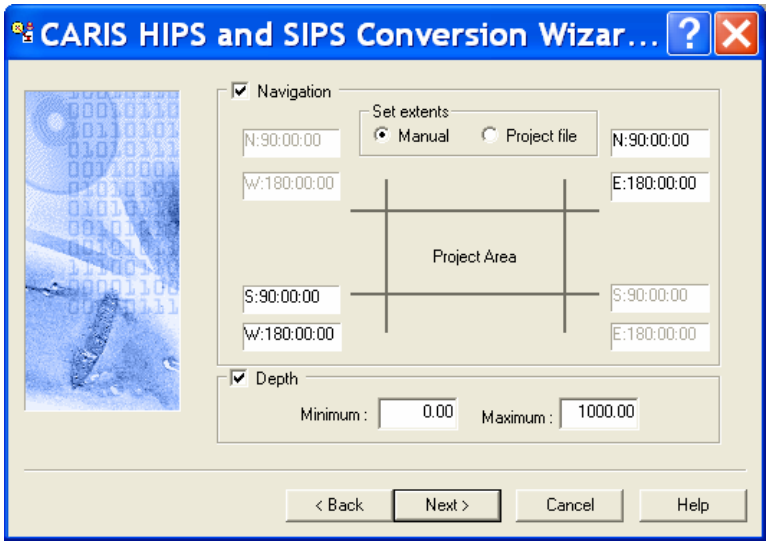
A. Define Project:

1. Go to File > New Project > Add Project.
   Then Add Vessel (Use the vessel file provided for offsets)
   Note: Offset Values for Sheet G should all be zero.
   Then Add Day
2. Make any entries you like here
3. Select Appropriate Projection
   Note: Projection for Sheet G is WGS 84, UTM Zone 15N
4. Define any limiting Lat/Long or ground units for the Project.

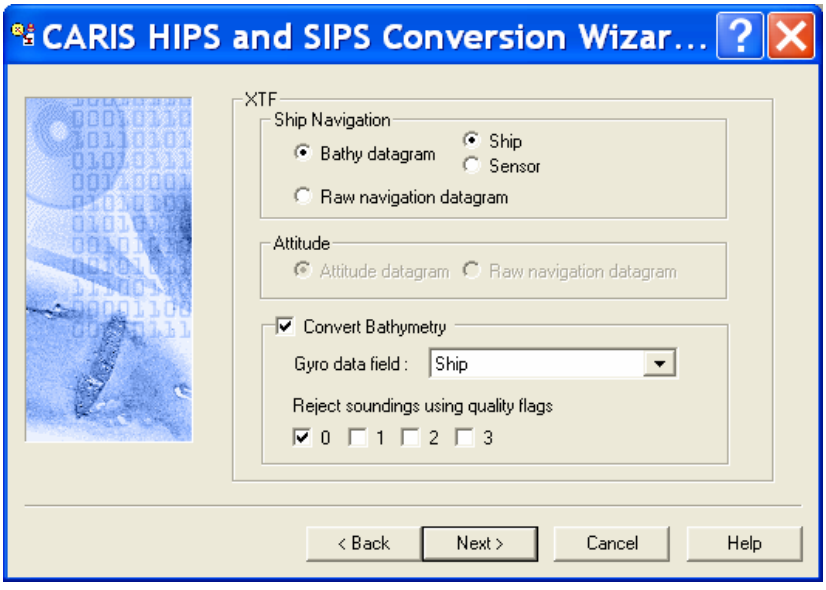
B. Convert Data Using Conversion Wizard:

1. Select XTF as data format to convert.
2. Navigate to XTF to be converted.
3. Specify what project you will be converting the files to.
4. Define navigation coordinate type as WGS 84, UTM Zone 15N.

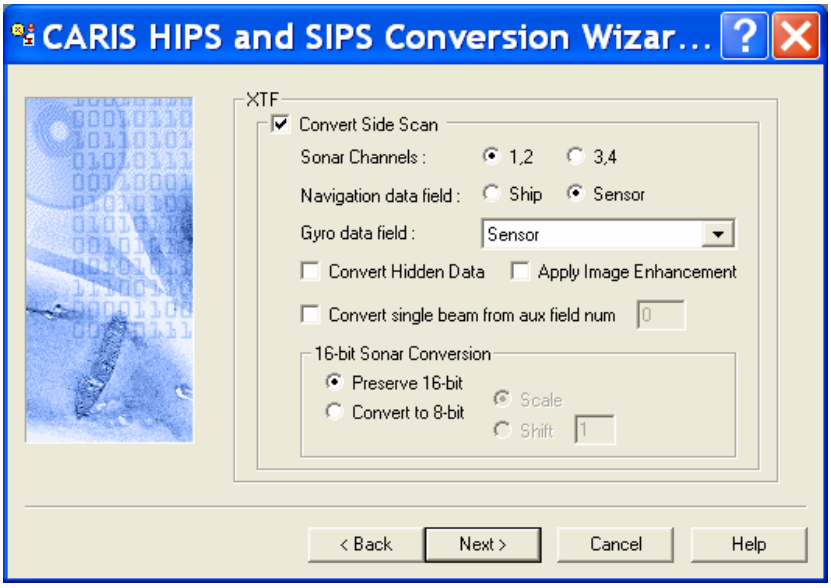
5. Click options as shown below.



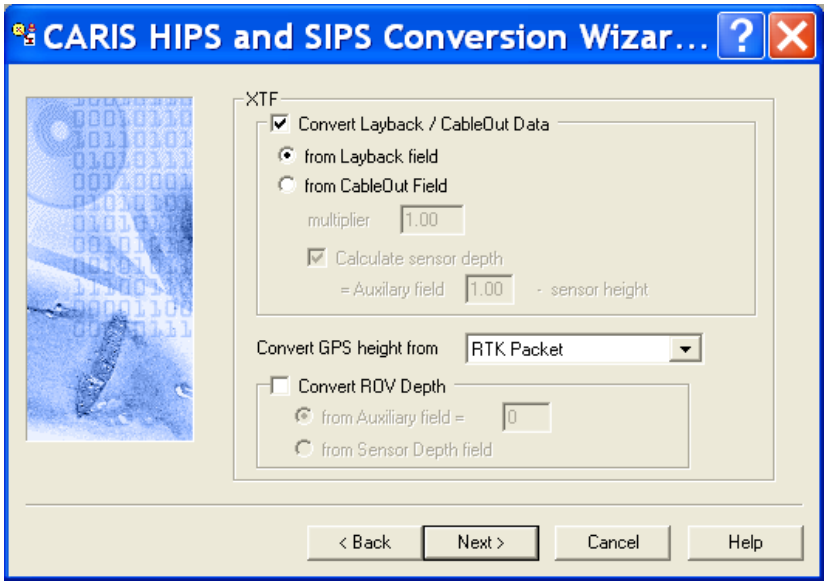
6. Click options as shown below.



7. Click options as shown below.



8. Click options as shown below.



9. Click CONVERT.

C. Open Files:

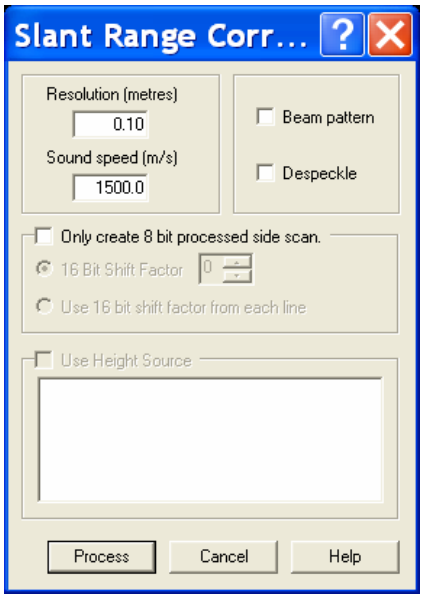
Go to File > Open Project > Select lines to be opened.

D. Recompute Towfish Navigation:

1. Select all lines to Recompute Towfish Navigation.
2. Go to Process > Recompute Towfish Navigation.
3. Chose SSS Cable Out as the sensor to be smoothed.
4. Click OK.

E. Slant Range Correct:

1. Select all lines to Slant Range Correct.
2. Go to Process > Slant Range Correction.



B.3 CORRECTIONS TO ECHO SOUNDINGS

No deviations from the Correction to Echo Soundings section in the Data Acquisition and Processing Report occurred. ***Concur***

C. VERTICAL AND HORIZONTAL CONTROL

Tide and water level corrections were determined and applied in accordance with Attachment #7 of the Statement of Work. Data from the Corpus Christi, TX (8775870) tidal station was used. Tidal zoning as set forth in the Statement of Work was applied. The following table shows the tidal zone and correctors that were used for this sheet. Tidal data were processed using the 1983-01 epoch.

Tide Zone	Reference Station	Time Corrector (min)	Range Ratio
WGM228	8775870	+6	1.07
WGM241	8775870	0	1.01
WGM242	8775870	0	1.01
WGM340	8775870	+12	1.10

The horizontal datum for the survey is the North American Datum of 1983 (NAD 83). The projection is Universal Transverse Mercator (UTM) Zone 14 North. ***See also the Evaluation Report.*** The vertical datum for the soundings is Mean Lower Low Water (MLLW). ***Concur. Approved tides were applied during field processing.***

D. RESULTS AND RECOMMENDATIONS ***See also the Evaluation Report.***

D.1 CHART COMPARISON

D.1.1 CHARTS AND NOTICES TO MARINERS

The following charts were used for comparison purposes.

Chart Number	Scale	Edition	Edition Date
11300	1:460,732	39	April, 2003
11307	1:80,000	39	March, 2003
11313	1:80,000	31	February, 2003

The Local Notices to Mariners were reviewed from February 2004 through notice number 31/05 dated August 2, 2005. One notice that affects the surveyed area was listed in Notice 09/05. The notice entailed the addition of a platform, and is discussed in section D.2.3 (existing infrastructure) of this report.

D.1.2 CHARTED SOUNDINGS

Chart 11300

Survey depths throughout the survey area are generally ½ fathom deeper than the currently charted survey depths. ***Concur***

Chart 11307

Survey depths indicate an area of 1 to 2 feet of shoaling within the safety fairway near the eastern edge of the chart area in the vicinity of 27°44'26" N, 096°51'00" W. Depths from this survey range from 78 to 91 feet deep in this area. Other than this area of shoaling, survey depths are in general agreement with charted depths. ***Concur***

Chart 11313

Survey depths showed general agreement with the currently charted depths, with the exception of a 44-foot depth that coincides with a charted 46-foot depth at 27°54'07" N, 096°55'34" W. ***Concur***

D.1.3 SHOALS AND HAZARDOUS FEATURES

All charted shoals and hazardous features are addressed in Sections D.1.4 through D.1.6.

D.1.4 AWOIS ITEMS

FULL INVESTIGATIONS

The following seven AWOIS Items were assigned for full investigation.

Item 4154

Description: Wreck (*Calypso Lady*)

Charted Position: ~~24~~*27*°43’01.10”N, 096°44’30.93”W

Search Radius: 2,000 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echosounder

Position Determined By: Differential GPS

Investigation Summary: No evidence of this wreck was found within the assigned search radius. It is recommended that this wreck be removed from the chart, and the AWOIS listing updated to reflect the results of this survey. ***Concur***

Delete dangerous sunken wreck PD

Item 4158

Description: Obstruction (Covered Well)

Charted Position: 27°44’57.10”N, 096°46’07.93”W

Search Radius: 1,000 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echosounder

Position Determined By: Differential GPS

Investigation Summary: According to the AWOIS listing, this obstruction is a covered well located near an existing structure. Additional lines were run adjacent to this structure. Although there were several pieces of debris in the area, there was no evidence of a covered well raising above the sea floor. According to MMS records, this well was completed. It is recommended that this obstruction be removed from the chart, and the AWOIS listing updated to reflect the results of this survey.

A significant obstruction appearing to be a pipe standing near vertically was found on the north side of the structure within the search radius for this item. This obstruction is discussed further in investigation summary G4. ***Do not concur Item not shown on chart 11300 41st Ed., Sep/06. No change in charting is recommended. See item G4. for final charting recommendation.***

Item 4185

Description: Wreck (*Liboria C.)*

Charted Position: 27°52'31.08"N, 096°58'30.95"W

Search Radius: 2,000 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echosounder

Position Determined By: Differential GPS

Investigation Summary: No evidence of this wreck was found within the assigned search radius. It is recommended that this item be removed from the chart, and the AWOIS listing updated to reflect the results of this survey. ***Concur.***

Delete Wk PA (23 ft rep) and danger curve (Charts 11307 & 11313)

Delete Wk PA (3 ¾ fm rep) and danger curve (Chart 11300)

Item 7909

Description: Wreck (*Capt. Charles Griffin*)

Charted Position: 27°53'01.08"N, 096°46'24.94"W

Search Radius: 2,000 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echosounder

Position Determined By: Differential GPS

Investigation Summary: A small contact was found within the assigned search radius, and was further investigated as item G2. After investigation, the item was deemed insignificant. It is recommended that this wreck be removed from the chart, and the AWOIS listing be updated to reflect the results of this survey.

Concur. Delete dangerous sunken wreck, PA.

Item 11898

Description: Obstruction (Unknown)

Charted Position: 27°51’09.00”N, 096°41’39.60”W

Search Radius: 2,000 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echosounder

Position Determined By: Differential GPS

Investigation Summary: This item is listed as a dangerous sunken helicopter. During survey operations in 2004, a small contact over one meter in height off the bottom was seen in the southwestern corner of the assigned search radius. This contact was investigated further in 2005 as investigation item G1. The contact was no longer present in this location. It is recommended that this item be removed from the chart, and the AWOIS listing updated to reflect the results of this survey. ***Concur Delete dangerous sunken wreck, PA.***

Item 11900

Description: Wreck (*Kentucky Daughter*)

Charted Position: 27°46’30.00”N, 096°47’00.00”W

Search Radius: 2,000 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echosounder

Position Determined By: Differential GPS

Investigation Summary: No evidence of this wreck was found within the assigned search radius. It is recommended that this item be removed from the chart, and the AWOIS listing updated to reflect the results of this survey. ***Concur***

Delete dangerous sunken wreck, PA

Item 11901

Description: Obstruction (Unknown)

Charted Position: 27°45’37.80”N, 096°47’22.20”W

Search Radius: 2,000 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echosounder

Position Determined By: Differential GPS

Investigation Summary: No evidence of this obstruction was found within the assigned search radius. It is recommended that this item be removed from the chart and that the AWOIS listing be updated to reflect the results of this survey.

Delete dangerous sunken wreck PA

ASSIGNED OR UNDETERMINED

Eight AWOIS Items were listed as information only search types. Of these eight items, one was listed as assigned, five were listed as undetermined, one was listed as completed, and one as unassigned.

Assigned

AWOIS item 4186, the wreck Margie B, was assigned for information only. A portion of the search radius of AWOIS item 4186 was covered during the survey. No evidence of this wreck was seen in the very limited portion of the search radius covered by this survey. It is recommended that this wreck remain as charted. ***Concur***

Undetermined

AWOIS items 201, 208, 4152, 4160, and 4191 lie completely outside of the survey area and no portion of their search radii were covered during the survey.

Concur

Completed

AWOIS item 8877 was listed as completed, but lies complete outside of the survey area and no portion of its search radii was covered during the survey.

Concur

Unassigned

AWOIS item 11899 lies completely outside of the survey area and no portion of its search radii was covered during the survey. ***Concur***

D.1.5 INVESTIGATION ITEMS

Additional investigation work was performed for five sonar contacts. A set of six to eight additional multibeam and side scan lines were run over each of these targets.

Item G1

Description		AWOIS item 11898
Investigation Method		100% multibeam and 400% side scan
Sonar Contacts	Original Survey	250/020725S (ss122) 250/022247S (ss123)
	Investigation	None
Least Depth		N/A
Charting Recommendation		During survey operations in 2004, a small contact was seen in the side scan record within this AWOIS items search radius. Further investigation of this item took place during survey operations in 2005, at which time the contact was not present. No evidence of this AWOIS item was found. It is recommended that the chart be updated to reflect the results of this survey.

Concur See AWOIS #11898 for final charting recommendation.

Item G2

Description		AWOIS item 7909
Investigation Method		100% multibeam and 400% side scan
Sonar Contacts	Original Survey	250/172540S (ss145) 250/174147S (ss146)
	Investigation	214/123419P (INV300) 214/125125P (INV301) 214/131153S (INV302) 214/134722S (INV304) 214/140334S (INV305)

Least Depth	21.71 meters (71 feet)
Charting Recommendation	During pregrid survey operations, a small contact was seen within the search radius for this AWOIS item. After further investigation, this item was deemed to be insignificant. It is recommended that the chart be updated to reflect the results of the current survey.

Concur See AWOIS #7909 for final charting recommendation.

Item G3

Description		Possible wreck
Investigation Method		100% multibeam and 400% side scan
Sonar Contacts	Original Survey	250/192523S (ss149)
	Investigation	None
Least Depth		N/A
Charting Recommendation		An object that appeared to potentially be a wreck was seen during the survey. After further investigation, no contact was seen.

Concur No change in charting is recommended.

Item G4

Description		Vertical Pipe
Investigation Method		100% multibeam and 400% side scan
Sonar Contacts	Original Survey	204/212954P (612) 204/221948S (613) 264/214943P (SS328)
	Investigation	214/194742S (INV507) 214/200414P (INV508)
Least Depth		~~27.2~~ ***27.864*** meters (~~89~~ ***91*** feet) ~~approximate~~

Charting Recommendation	This obstruction is located within the search radius of AWOIS item 4158. During survey operations, a significant contact resembling a pipe standing vertically on the bottom was noted on the north side of an existing structure, MI 754A. Attempts to locate the pipe during multibeam investigation were unsuccessful due to its narrow profile and proximity to the structure. It is recommended that an 89 foot obstruction be charted as *Obstn (rep 2005)* at 27°45'00.29"N, 96°46'08.75"W. The position and depth of this obstruction were calculated from side scan investigation line INV508.

Concur w/ Clarification. Ensonification data of pipe feature was available in bathymetry. Chart non-dangerous obstruction, least depth 27.864 meters (91 ft , and 15$^{1/16}$ fathom) at Latitude 27°44'59.83"N, Longitude 96°46'08.44"W. Survey Line: H11245 / Moana Wave / 2005-214 / 242-inv500, Profile/Beam: 2890 / 34) Chart Obstruction with a depth of 15 fms (15 Obstn) in present survey location. Chart 15 fms Obstn.

Item G5

Description		Rectangular piece of debris
Investigation Method		100% multibeam and 400% side scan
Sonar Contacts	Original Survey	175/084601P (482)
	Investigation	214/221956P (INV600) 214/213427S (INV601) 214/214505S (INV602) 214/220250P (INV603)
Least Depth		26.67 meters (87 feet)
Charting Recommendation		After investigating this item, it was deemed to be insignificant debris. It is recommended that the chart be updated to reflect the results of the current survey.

D.1.6 DANGER TO NAVIGATION REPORTS

No Danger to Navigation Reports were issued.

D.2 ADDITIONAL RESULTS

D.2.1 PRIOR SURVEYS

Comparison with prior surveys was not required under this Task Order. See Section D.1 for comparison to nautical charts.

D.2.2 AIDS TO NAVIGATION

There were no Aids to Navigation present in the survey area at the completion of the fieldwork in August 2005.

D.2.3 EXISTING INFRASTUCTURE

The following platforms were found as charted. ***Concur***

Description	Survey Position	
	Latitude	Longitude
*MI696	27°53’10.62”N	96°44’39.56”W
*MI721_1	27°52’01.59”N	96°57’33.60”W
*MI754A	27°44’58.27”N	96°46’08.08”W
*MI844	27°53’11.42”N	96°59’00.39”W

Local Notice to Mariners number 09/05 listed the addition of a platform, MI 839, at the following location. This platform was found as listed in this notice. ***Concur***

LNM 09/05 Position	
Latitude	Longitude
27°53’15.90”N	96°58’21.00”W

One previously uncharted platform, MI 721_L, was present at the time of completion of the survey. It is located at the following position. ***Concur***

Survey Position	
Latitude	Longitude
27°52’46.59”N	96°57’19.08”W

Two Platforms charted at the following locations were not present at the time of survey.

Charted Position	
Latitude	Longitude
27°51’49”N	96°58’43”W*
~~27°52’11”N~~	~~96°58’28”W~~
27°52’11.47”N	***96°58’38.53”W****

****Defer to Marine Chart Division, Nautical Data Branch**.

D.2.4 OTHER PERTINENT INFORMATION

As noted earlier in section B.2, quality control, a number of side scan lines contain a digitally calculated layback value of zero. At first, the gaps caused in the coverage mosaic were thought to be a result of navigation jumps. As a result, all of these gaps were rerun. These short rerun lines are included in the logs and deliverables, but are not included in the final coverage mosaic or the side scan correlation sheet. The gaps in the mosaic were filled by applying a manual layback value to the original xtf. Below is a list of these rerun lines and the original xtf they are associated with.

Original xtf	Manuel layback value applied	Rerun
527	44.8m	629, 638
529	44.8m	631
502	45.5m	630
531	46.9m	636
538	46.9m	628
540	46.9m	634
498	47.4m	622
553	45.2m	626
496	47.7m	633
520	45.9m	624
522	46.4m	625
524	45.8m	623
550	47.4m	627
526	45.3m	632
551	45.8m	637
541	46.8m	620

C&C Technologies
SURVEY SERVICES

NOAA

LETTER OF APPROVAL

REGISTRY NUMBER H11245

This report and the accompanying smooth sheet are respectfully submitted.

Field operations contributing to the accomplishment of the survey H11245 were conducted under my direct supervision with frequent personal checks of progress and adequacy. This report and smooth sheet have been closely reviewed and are considered complete and adequate as per the Statement of Work.

This report is meant to be accompanied by the Data Acquisition and Processing Report for project OPR-K379-KR revised and submitted July 2005.

Lynn Samuel, Joe Burke
Chiefs of Party
C&C Technologies
February 2005

APPENDIX IV

TIDES AND WATER LEVELS

ABSTRACT OF TIMES OF HYDROGRAPHY FOR SMOOTH SHEET

Project: OPR-K379-KR

Registry No.: H11245

Contractor Name: C & C Technologies, Inc.

Date: August 2005

Inclusive Dates: September 2 to September 28 2004, and June 7 to August 3, 2005

Sheet Letter: G

TIME (UTC)

Julian Day	Start	End	Year
246	0341	2400	2004
247	0000	2104	2004
248	0000	1550	2004
249	1445	2400	2004
250	0000	2400	2004
251	0000	1231	2004
254	0657	2400	2004
255	0000	2400	2004
256	0000	2400	2004
257	0000	2400	2004
258	0000	2145	2004
262	1400	2400	2004
263	0000	2400	2004
264	0000	2400	2004
265	0000	1830	2004
269	1100	2400	2004
270	0000	2400	2004
271	0000	2400	2004
272	0000	1900	2004
265	0000	1830	2004
Julian Day	Start	End	Year
158	1430	2400	2005
159	0000	200	2005
166	2000	2400	2005
167	0000	1900	2005
168	0000	2244	2005
170	1433	2400	2005
171	0000	2400	2005

172	0000	2400	2005
173	0000	2400	2005
174	0000	2400	2005
175	0000	2200	2005
176	0612	2400	2005
177	0000	2400	2005
178	0000	2400	2005
179	0000	2344	2005
214	0000	2400	2005
215	0000	1433	2005

ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT FOR H11245 (2004-2005)

This Evaluation Report has been written to supplement and/or clarify the original Homeland Security Project Report. Sections in this report refer to the corresponding sections of the Project Report.

B. DATA ACQUISITION AND PROCESSING

The following software was used to process data at the Atlantic Hydrographic Branch:

CARIS HIPS/SIPS version 5.4
MapInfo, version 6.5
MicroStation J, version 07.01.04.16
I/RAS B, version 07.01.000.18
Pydro v6.8.0

The Preliminary Smooth Sheet was plotted by the contractor. No revisions were made to the Preliminary Smooth Sheet (DGN) during office processing. The preliminary smooth sheet was plotted using a Hewlett Packard DesignJet 2500CP plotter during office processing.

C. VERTICAL AND HORIZONTAL CONTROL

HORIZONTAL CONTROL

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD 83). Office processing of this survey is based on these values.

JUNCTIONS

Standard junctions were not performed between surveys H11246 (2004) to the south and H11244 (2005) to the northeast. These surveys have already been submitted to MCD. The junctions will have to be completed at MCD during compilation. Present survey depths are in harmony with the charted hydrography to the northwest, east, or west.

D. RESULTS AND RECOMMENDATIONS

COMPARISON WITH CHART 11313, 21st, Edition, Feb./03
11307, 36th, Edition, Mar./03
11300, 39th, Edition, Sep./06

The charted hydrography originates with the prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in Section D. of the Descriptive Report. The following should be noted:

A charted ***Obstn, PA (cleared 90 ft)*** in Latitude 27°42′30″N, Longitude 96°51′45″W was neither verified nor disproved by the present survey. No change in charting is recommended.

The present survey is adequate to supersede the charted hydrography within the common area.

COMPARISON WITH PRIOR SURVEYS

A comparison with prior surveys was not done during office processing in accordance with section 4. of the memorandum titled Changes to Hydrographic Survey Processing, dated May 24, 1995.

The present survey is adequate to supersede the prior surveys in the common area.

MISCELLANEOUS

Chart compilation using the present survey data was done by Atlantic Hydrographic Branch personnel in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, Silver Spring, Maryland.

The following NOS charts were used for compilation of the present survey:

11300 (41st edition, Sept./06)
11307 (37th edition, Jul./06)
11313 (23rd edition, Oct./05)

ADEQUACY OF SURVEY

This is an adequate multibeam, side scan sonar survey. No additional field work is recommended.

Reginald L Keene Sr

Digitally signed by Reginald L Keene Sr
DN: cn=Reginald L Keene Sr, c=US, o=NOAA/NOS/DOC, ou=Hydrographic Branch, email=Reginald.L.Keene@NOAA.GOV
Date: 2007.11.29 10:25:29 -05'00'

Reginald L. Keene Sr.
Cartographer
Verification of Field Data
Evaluation and Analysis

APPROVAL SHEET
H11245

The completed survey has been inspected with regard to survey coverage, development of critical depths, cartographic symbolization, and verification or disproval of charted data. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.

Norris Wike
Digitally signed by Norris Wike
DN: cn=Norris Wike, c=US, o=NOAA, ou=AHB, email=norris.a.wike@noaa.gov
Date: 2007.11.29 10:29:21 -05'00'

Date:

Norris A. Wike
Cartographer
Atlantic Hydrographic Branch

I have reviewed the accompanying data and reports. This survey and accompanying digital data meet or exceed NOS requirements and standards for products in support of nautical charting except where noted in the Evaluation Report.

Approved:

Shepard Smith
I am approving this document
2007.11.29 10:14:38 -05'00'

Date:

Shep Smith
Lt. Commander, NOAA
Chief, Atlantic Hydrographic Branch

Gretchen Imahori
I have completed the final AWOIS check
2007.12.10 13:24:00 -05'00'