

F00791

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Ocean Service

DESCRIPTIVE REPORT

Type of Survey: Natural Disaster Response

Registry Number: F00791

LOCALITY

State(s): North Carolina

General Locality: Wilmington, NC

Sub-locality: Entrance to Port of Beaufort, NC

2019

CHIEF OF PARTY
David Neff, C.H.

LIBRARY & ARCHIVES

Date:

HYDROGRAPHIC TITLE SHEET

F00791

INSTRUCTIONS: The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

State(s): **North Carolina**

General Locality: **Wilmington, NC**

Sub-Locality: **Entrance to Port of Beaufort, NC**

Scale: **5000**

Dates of Survey: ~~09/07/2019~~ to * **09/09/2019**

Instructions Dated: **09/06/2019**

Project Number: **OPR-F345-KR-19**

Field Unit: **eTrac Inc.**

Chief of Party: **David Neff, C.H.**

Soundings by: **Kongsberg EM 2040C (MBES)**

Imagery by: ***Kongsberg EM 2040C (MBES)***

Verification by: **Atlantic Hydrographic Branch**

Soundings Acquired in: **meters at Mean Lower Low Water**

Remarks:

All times are UTC. The purpose of this survey is to update existing NOS nautical charts. F00790 will cover approximately 1 square nautical mile in the vicinity of the entrance to Port of Wilmington, NC near Wilmington, NC . SUB CONSULTANT: Geodynamics LLC, 310A Greenfield Dr., Newport, NC 98570

**** Survey operations conducted on one day DN252 09/09/2019.***

Any revisions to the Descriptive Report (DR) applied during office processing are shown in red italic text. The DR is maintained as a field unit product, therefore all information and recommendations within this report are considered preliminary unless otherwise noted. The final disposition of survey data is represented in the NOAA nautical chart products. All pertinent records for this survey are archived at the National Centers for Environmental Information (NCEI) and can be retrieved via <https://www.ncei.noaa.gov/>. Products created during office processing were generated in NAD83 UTM 18N, MLLW. All references to other horizontal or vertical datums in this report are applicable to the processed hydrographic data provided by the field unit.

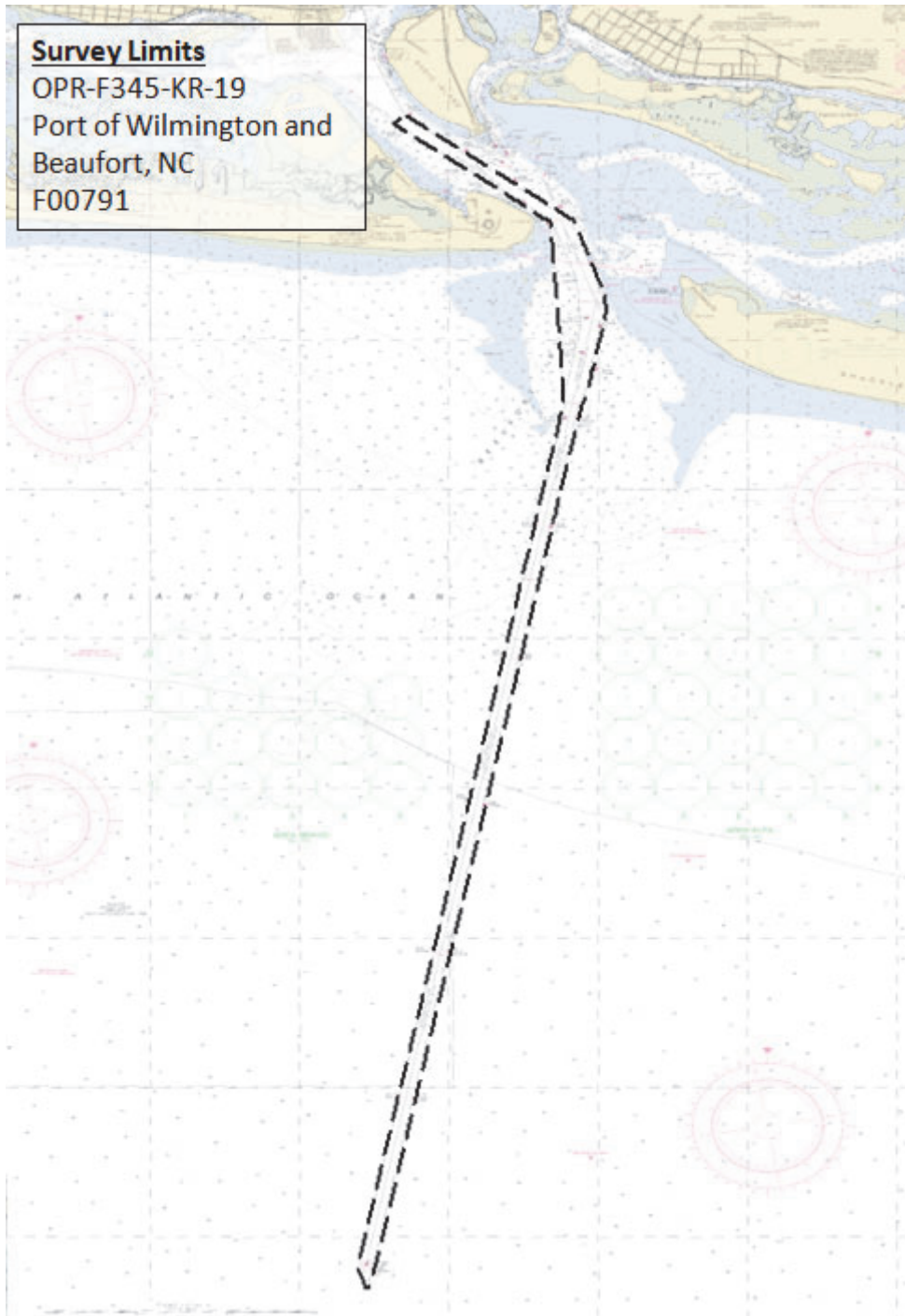
DESCRIPTIVE REPORT SUMMARY

A. Area Surveyed

This hydrographic survey was acquired in accordance with the requirements defined in the Project Instruction OPR-F345-KR-19.

Data were acquired within the following survey limits:

Northwest Limit	Southeast Limit
34° 42' 31.8" N 76° 41' 48.25" W	34° 34' 42.76" N 76° 39' 48.34" W



Survey Limits (black line)

B. Survey Purpose

Emergency survey in response to a United States Coast Guard request for survey in the ports of Wilmington and Beaufort, NC following Hurricane Dorian. Survey data from this project is intended to supersede all prior survey data in the common area.

C. Intended Use of Survey

The entire survey is adequate to supersede previous data.

Survey Coverage was in accordance with the requirements in the Project Instructions and HSSD 2019. F00791 was surveyed to Object Detection Coverage with backscatter standards set forth in the HSSD 2019.

D. Data Acquisition and Processing

Please reference Data Acquisition and Processing Report OPR-F345-KR-19_DAPR for a complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods.

E. Uncertainty

IHO Order 1a uncertainty specification was met by 100% of the nodes.

The final Bathymetric Attributed Grid (BAG) surfaces' uncertainty was generated through the NOAA QC Tools and an image of the results is located below.

For F00791 the following percentages represent the results of the TPU testing:

Object Detection Coverage (Finalized 50cm CUBE weighted Dynamic Surface in NOAA QC Tools) = 99.5+
% of nodes are within the allowable TPU.

Factors Affecting Soundings:

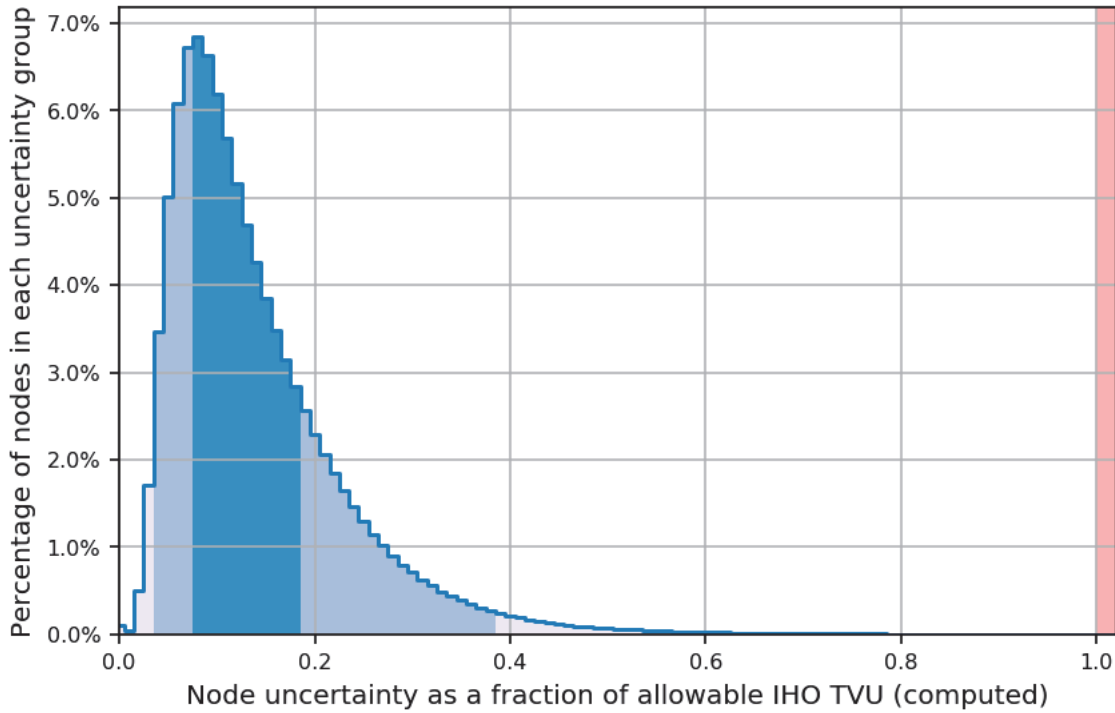
There were no other factors that affected corrections to soundings.

Uncertainty Standards

Grid source: F00791_MB_50cm_MLLW_Final

99.5+% pass (18,836,668 of 18,838,711 nodes), min=0.00, mode=0.08, max=2.08

Percentiles: 2.5%=0.04, Q1=0.08, median=0.12, Q3=0.18, 97.5%=0.38



F00791 Finalized 50cm Object Detection MBES TPU Statistics (NOAA QC Tools)

F. Results and Recommendations

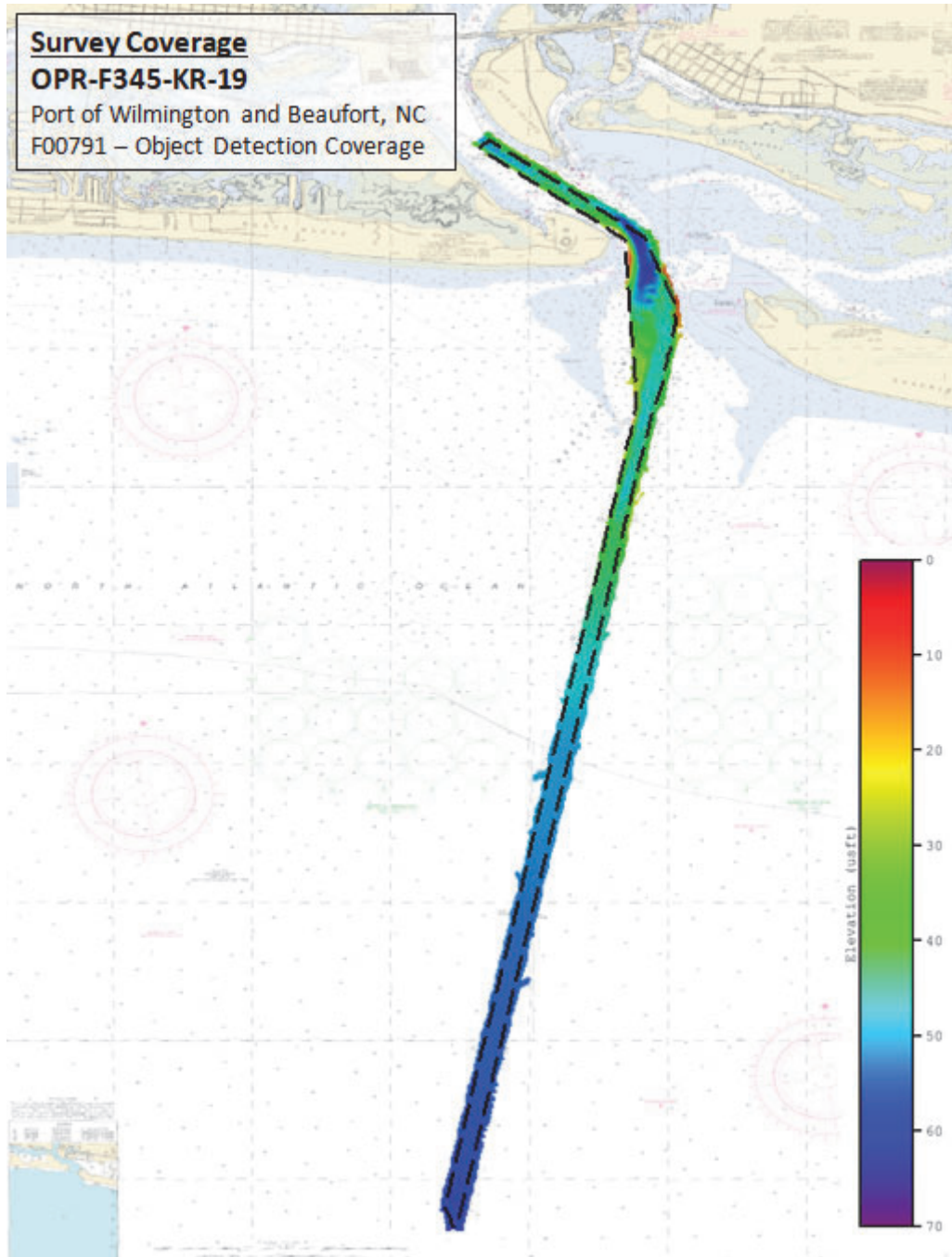
The following are the largest scale ENC's, which cover the survey area:

ENC	Scale	Edition	Update Application Date	Issue Date	Preliminary?
US5NC17M	1:415000	54	11/05/2018	12/14/2018	NO

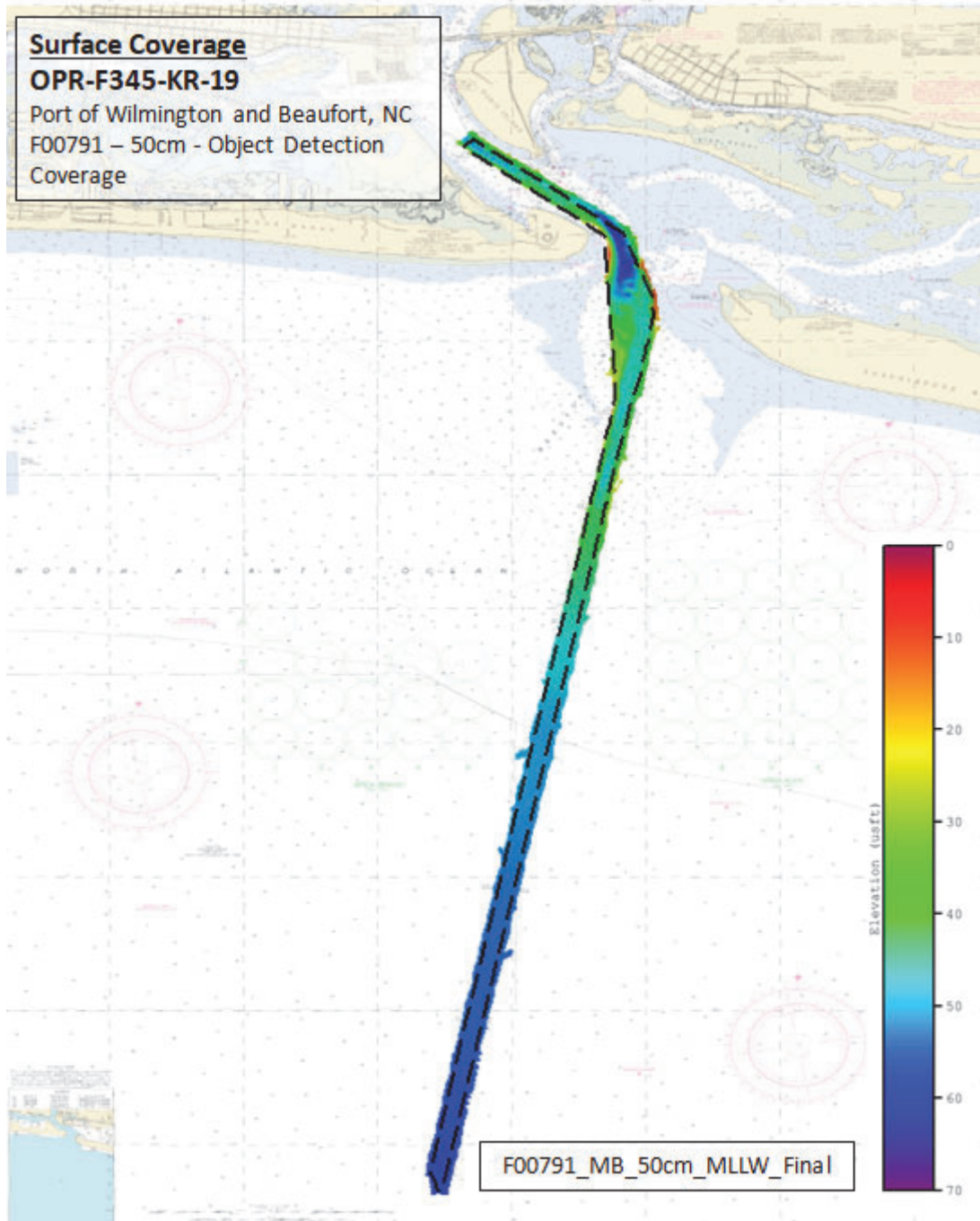
The following surfaces and/or BAGs were submitted to the Processing Branch:

Surface Name	Surface Type	Resolution	Depth Range	Surface Parameter	Purpose
F00791_MB_50cm_MLLW	BAG	0.5 m	1.82 m - 19.56 m	NOAA_0.5m	Object Detection

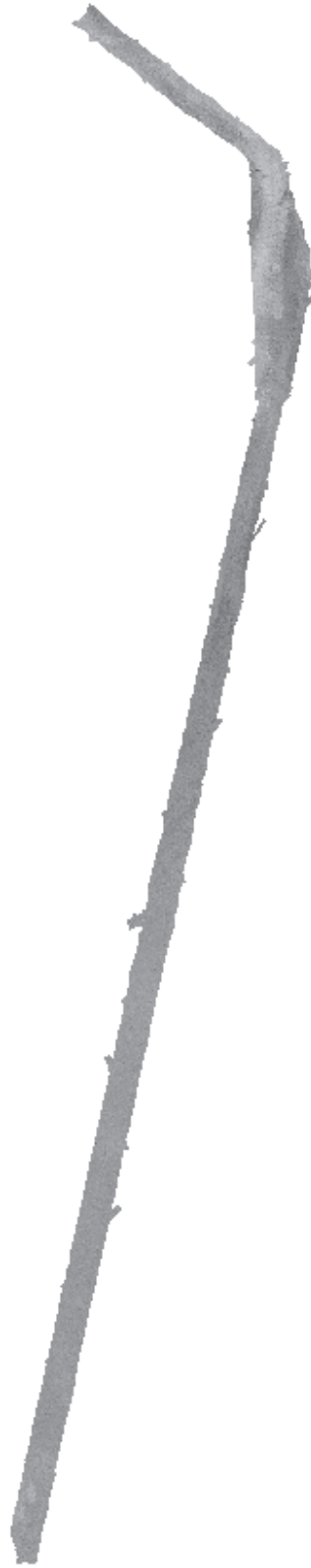
A 50cm surface is provided meeting object detection coverage MBES with backscatter for F00791.



F00791 50cm CUBE Survey Coverage Graphic



F00791 50cm CUBE Surface Coverage Graphic



Raw Backscatter from F00791

G. Vertical and Horizontal Control

The vertical datum for this project is Mean Lower Low Water. The vertical control method used was VDatum.

Ellipsoid to Chart Datum Separation File: Beaufort_UTM18_Meters_ITRF08_to_MLLW.bin In order to reference soundings to MLLW, a VDatum separation method was applied to the Qinsy DB files via a separation file in the processing software. Note: The vertical control methods are further addresses in the HVCR and DAPR.

The horizontal datum for this project is North American Datum of 1983 (NAD 83). The projection used for this project is Universal Transverse Mercator (UTM) Zone 18.

Note: Vertical and horizontal control methods are further addressed in the HVCR and DAPR.

H. Additional Results


There were no additional results that affected the survey quality.

I. Approval

As Chief of Party, field operations for this hydrographic survey were conducted under my direct supervision, with frequent personal checks of progress and adequacy. I have reviewed the attached survey data and reports.

All field sheets, this Survey Summary Report, and all accompanying records and data are approved. All records are forwarded for final review and processing to the Processing Branch.

The survey data meets or exceeds requirements as set forth in the NOS Hydrographic Surveys Specifications and Deliverables, Field Procedures Manual, Standing and Letter Instructions, and all HSD Technical Directives. These data are adequate to supersede charted data in their common areas. This survey is complete and no additional work is required with the exception of deficiencies noted in the Survey Summary Report.

Approver Name	Title	Date	Signature
David R. Neff, C.H.	VP of Survey, eTrac Inc.	10/18/2019	David Neff  <small>Digitally signed by David Neff DN: C=US, E=david@etracinc.com, O=eTrac Inc., CN=David Neff Date: 2019.10.17 13:43:33-0700'</small>



Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>

RE: F00790 RSA Results

Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>

Mon, Nov 11, 2019 at 4:50 PM

To: Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>

Cc: Alexandra Dawson - NOAA Federal <alexandra.dawson@noaa.gov>, AHB Chief - NOAA Service Account <ahb.chief@noaa.gov>

Hi Gene,

The Wilmington survey was compiled using US5NC12M and the Beaufort survey was compiled using US5NC17M. These ENC's were downloaded directly from [NOAA's Chart Locator](#). It is possible a more updated chart has been published since the CSF was compiled. That said, I was in regular communication with Dave Neff during the execution of this response survey and understand that eTrac was in regular contact with Ed Owens, and indirectly USCG, regarding the placement of the navigation aids. The USCG was actively repositioning misplaced buoys throughout the survey acquisition period.

I received an email confirmation from Meghan that AHB passed F00790 and communicated this to eTrac - was this premature?

I'm happy to discuss sometime tomorrow, please feel free to give me a call on my cell phone, 704-995-6481 at a time that is convenient. I will be in and out of meetings with AGO for the majority of the next two days, but if I miss you, will give you a call back as soon as possible.

Christy

On Fri, Nov 8, 2019 at 9:50 AM Castle Parker - NOAA Federal <castle.e.parker@noaa.gov> wrote:

Hey Christy,

I was chatting with Alex this morning about F790 and F791 and have questions regarding the source of the CSF nav aids. From my perspective the CSF and FFF (same location) AtoNs don't match the ENC and ENC locations with the largest scale chart products. The field unit remarked that the AtoN was visually observed. If the field unit observed the AtoN at the CSF location, they are all off station. I don't see any communication with USCG regarding this subject.

I heard that you would be in Norfolk next week and wish that we could discuss if you get time.

Also, want to discuss the RSA failures for F790 and F791. All of this can wait till next week. The failures will delay final payment till the RSA issues are resolved.

Enjoy the weekend and holiday!

[Quoted text hidden]

[Quoted text hidden]



David Neff <david@etracinc.com>

DTONS & DAPR for OPR-F345-KR-19

7 messages

Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>

Wed, Sep 11, 2019 at 1:10 PM

To: David Neff <david@etracinc.com>

Cc: Castle Parker <castle.e.parker@noaa.gov>

Hi Dave,

I spoke with our navigation managers, and they think it would be best to submit the shoaling DTONS via the formal DTON process. The concern is that the USACE/USCG personnel that the data were provided to may not be well-versed in the DTON reporting process.

For the DAPR, please address any changes that may not have been captured within the OPR-X388-KR-19 project DAPR and include a DAPR for the R/V 4 points.

Let me know if you have any questions - thank you!

Christy

--

Christy Fandel

Contracting Team Lead, Operations Branch

Office of Coast Survey, NOAA

(o) 240 - 533 - 0032 | (m) 704 - 995 - 6481

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David Neff <david@etracinc.com>

Wed, Sep 11, 2019 at 1:17 PM

To: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>

Cc: Castle Parker <castle.e.parker@noaa.gov>

OK sounds good Christy. Will get the shoal soundings to Gene for review and then will submit officially what comes of that.

Regarding the DAPR, we have not delivered the DAPR yet for OPR-X388-KR-19. I think it will be fairly straight forward to create a simple DAPR for the NC work. I'll talk to Izzy and Lisa here about a solution and let you know what we come up with. Sounds like you are flexible at the branch as long as we get the info over in a specified format.

Dave

[Quoted text hidden]

--

David Neff, C.H.

Mobile: (415) 517-0020

www.etracinc.com

Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>

Thu, Sep 12, 2019 at 5:25 AM

To: David Neff <david@etracinc.com>

Cc: Castle Parker <castle.e.parker@noaa.gov>

Hi Dave,

Thank you - yes, as long as the pertinent information for both the OPR-X388-KR-19 and OPR-F345-KR-19 projects is included between the two DAPR deliveries, we will have the necessary information to formally

review the work. Please be sure to reference the corresponding DAPRs within the secondary DAPR, as appropriate.

Thanks!

Christy

[Quoted text hidden]

Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>

Thu, Sep 12, 2019 at 7:39 AM

To: David Neff <david@etracinc.com>

Cc: Castle Parker <castle.e.parker@noaa.gov>, Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Hi Dave,

After subsequent discussions with Ed and Gene, please postpone delivery of any DTONS via the formal DTON procedure for those DTONS observed *within* the channel extents of Wilmington and Beaufort. Ed will follow-up with USACE to determine USACE's anticipated course of action, after which we can determine if a formal DTON submission will be necessary.

For any DTONS observed *outside* the channel extents, please submit via the formal DTON process as outlined in HSSD Section 1.6.

Thank you and I apologize for the confusion,

Christy

[Quoted text hidden]

David Neff <david@etracinc.com>

Thu, Sep 12, 2019 at 7:42 AM

To: Isadora Kratchman <izzy@etracinc.com>, Lisa Diamond <lisa@etracinc.com>

[Quoted text hidden]

David Neff <david@etracinc.com>

Thu, Sep 12, 2019 at 7:42 AM

To: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>

Cc: Castle Parker <castle.e.parker@noaa.gov>, Edward Owens - NOAA Federal <edward.owens@noaa.gov>

No problem, will hold off and wait to hear from you on further direction.

Dave

[Quoted text hidden]

Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>

Thu, Sep 12, 2019 at 7:43 AM

To: David Neff <david@etracinc.com>

Cc: Castle Parker <castle.e.parker@noaa.gov>, Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Thanks, Dave!

[Quoted text hidden]



David Neff <david@etracinc.com>

eTrac Progress Update

25 messages

David Neff <david@etracinc.com>

Sat, Sep 7, 2019 at 10:33 AM

To: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Christy, Corey, and Ed,

We are starting to move data through the pipeline, all is well so far regarding progress and data flow to the office. I have generated a tracking site for the coverage that we will be updating regularly:

dorian.etracinc.com

U: noaa

P: etrac3245!

I will keep this coverage site up to date regularly, and of course will be sending the daily progress email at the end of today. As of now, data is up for the first section of the Beaufort channel, Wilmington data is beginning to come to the office now.

Dave

--

David Neff, C.H.

Mobile: (415) 517-0020

www.etracinc.com

Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Sat, Sep 7, 2019 at 12:16 PM

To: David Neff <david@etracinc.com>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>

Hello Dave,

Great, thanks for the update and the data link.

V/r,

~Ed

[Quoted text hidden]

--

Edward Owens**Mid-Atlantic Navigation Manager (Acting)**

NOAA's National Ocean Service

Office of Coast Survey, Navigation Surveys Division

439 West York Street

Norfolk, Virginia 23510

(757) 364-7471 | Office

(571) 305-0995 | Mobile Work

(757) 319-5760 | Mobile Other

Edward.Owens@noaa.govMidAtlantic.NavManager@noaa.gov

David Neff <david@etracinc.com>

Sat, Sep 7, 2019 at 6:13 PM

To: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>

Hello NOAA people,

I wanted to give a quick update now and I will send over the progress graphics and report a bit later. It may be late for you so I wanted to provide this brief update in case you don't catch the later one. I'm having a hard time finding an appropriate "end of day" with the time changes and multi-shift operation..

Things are going well.

Wilmington channel will be collected by approximately 1-2am tomorrow morning. Data will be processed in the CA office and fill/inv plans will be created for any additional field work needed.

Beaufort channel will be completed tomorrow early afternoon. The same work will be done to verify fill/inv in the CA office and any additional work will be completed tomorrow mid afternoon.

All data for the project should be collected by mid to late afternoon tomorrow. However, if needed I am fine with sending xyz data once mainscheme data collection is complete and before fill occurs. The elevations will be final, there may be small holidays in the 50cm that we will cover during fill, but if expediting the data to USACE is the priority, I feel comfortable passing along the data at that point.

We have not found anything alarming and all the data is lining up with the recent USACE data I have from their website. There are not DTONS as of now.

Corey and/or Christy should we perhaps talk on the phone tomorrow morning again to discuss the plan for the day?

Have a great night,

Dave

[Quoted text hidden]

Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Sat, Sep 7, 2019 at 6:22 PM

To: David Neff <david@etracinc.com>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>

Hello Dave,

Thank you for the update. Good to hear that significant progress has been made and no substantial channel condition changes have been discovered. As you know, it's late and we'll see if Corey or Christy have any input as regards tomorrow ops.

Very appreciatively,

~Ed

[Quoted text hidden]

Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>

Sat, Sep 7, 2019 at 6:57 PM

To: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Cc: Corey Allen - NOAA Federal <corey.allen@noaa.gov>, David Neff <david@etracinc.com>

Hi Dave,

Thank you for such a comprehensive update - I'm glad to hear the operations are going well and you are making such steady progress in both ports.

I'll try to touch base with Corey, I think a phone call tomorrow morning is a good plan, what time works best for you?

Christy

[Quoted text hidden]

--

Christy Fandel

Contracting Team Lead, Operations Branch

Office of Coast Survey, NOAA

(o) 240 - 533 - 0032 | (m) 704 - 995 - 6481

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David Neff <david@etracinc.com> Sat, Sep 7, 2019 at 9:38 PM
To: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>
Cc: Edward Owens - NOAA Federal <edward.owens@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>

Hi Christy,

I will reach out to you in the morning once I have a handle on how the night shift went. What's the best number to reach you at?

Dave
[Quoted text hidden]

Christina Fandel - NOAA Federal <christina.fandel@noaa.gov> Sun, Sep 8, 2019 at 4:48 AM
To: David Neff <david@etracinc.com>
Cc: Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Hi Dave,

My cell is 704-995-6481.

Christy
[Quoted text hidden]

Christina Fandel - NOAA Federal <christina.fandel@noaa.gov> Sun, Sep 8, 2019 at 8:32 AM
To: David Neff <david@etracinc.com>
Cc: Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Hi Dave,

I spoke with Ed and he provided the lat/lon from the USCG of the "G5" buoy in Beaufort that is missing. It should be located at 34-37-54.598N, 76-40-52.104W.

Once the boat is back up and running, would it be possible for them to run a straight line out to the "G5" buoy as part of the mainscheme acquisition to see if they observe any indications of a sunken buoy?

Thank you,

Christy
[Quoted text hidden]

David Neff <david@etracinc.com> Sun, Sep 8, 2019 at 8:34 AM
To: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>
Cc: Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Will do, I will pass this information on the field crew.

Dave
[Quoted text hidden]

David Neff <david@etracinc.com> Sun, Sep 8, 2019 at 8:35 AM
To: Zach Gray <zach@geodynamicsgroup.com>, Dave Bernstein <dave@geodynamicsgroup.com>

See below request about the G5 buoy we just discussed Zach.
[Quoted text hidden]

Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>

Sun, Sep 8, 2019 at 8:37 AM

To: David Neff <david@etracinc.com>

Cc: Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Great, thank you, Dave!

[Quoted text hidden]

David Neff <david@etracinc.com>

Sun, Sep 8, 2019 at 9:54 PM

To: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>,

Edward Owens - NOAA Federal <edward.owens@noaa.gov>

All,

Find attached the XYZ data for Wilmington Channel. This is a 25ft shoal biased sounding selection. I have a 1m resolution surface, but it is too big to send. I can setup a download link tomorrow if this does not suffice. I have also included the simple color graphics showing areas shoaler than the channels authorized depths. The vessel is working now to collect the last of the Beaufort data and then a similar deliverable to be sent tomorrow after fill is complete.

Green 5 Update: We believe we found the anchor inside the channel with the chain laying due east. There was nothing in the water column, so we are a bit closer to closing that mystery. More on that tomorrow.

I will be in touch in the morning.

[Quoted text hidden]



F00790_Wilmington_Channel.zip

955K

Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Mon, Sep 9, 2019 at 5:35 AM

To: David Neff <david@etracinc.com>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>

Good morning Dave,

Thank you for providing this information. Yes, can you please provide the 1m res surface for download to accompany the products you've provided here.

Green 5 Update: Great to hear that we are fairly certain as to the circumstance of missing G"5" buoy in Beaufort. I have been in touch with the USCG this morning and they will have a vessel on site at approx. 08:30 EST, wanting to recover the block and reset a new buoy. Can you please provide a GP for the G"5" block, currently not seeing this area updated in the coverage map to glean a position.

V/a,

-Ed

[Quoted text hidden]

[Quoted text hidden]

David Neff <david@etracinc.com>

Mon, Sep 9, 2019 at 5:40 AM

To: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>

Good morning Ed. I am work on getting a position and imagery for the anchor now. I will be in touch.

Dave

[Quoted text hidden]

Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Mon, Sep 9, 2019 at 5:51 AM

To: David Neff <david@etracinc.com>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>

Dave,

Perfect, thank you.

-Ed

[Quoted text hidden]

David Neff <david@etracinc.com>

Mon, Sep 9, 2019 at 6:15 AM

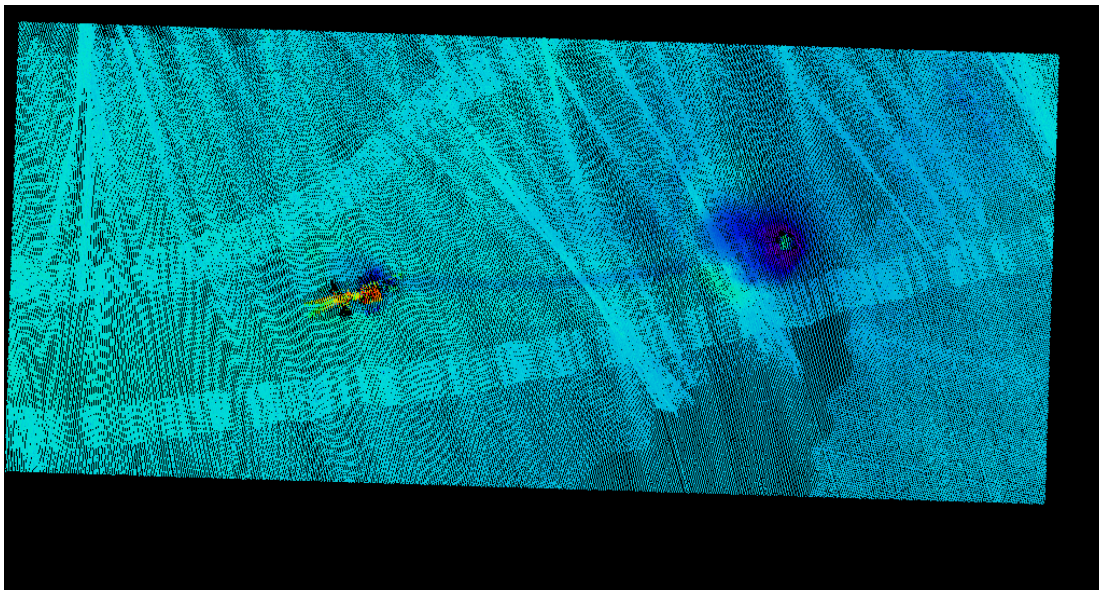
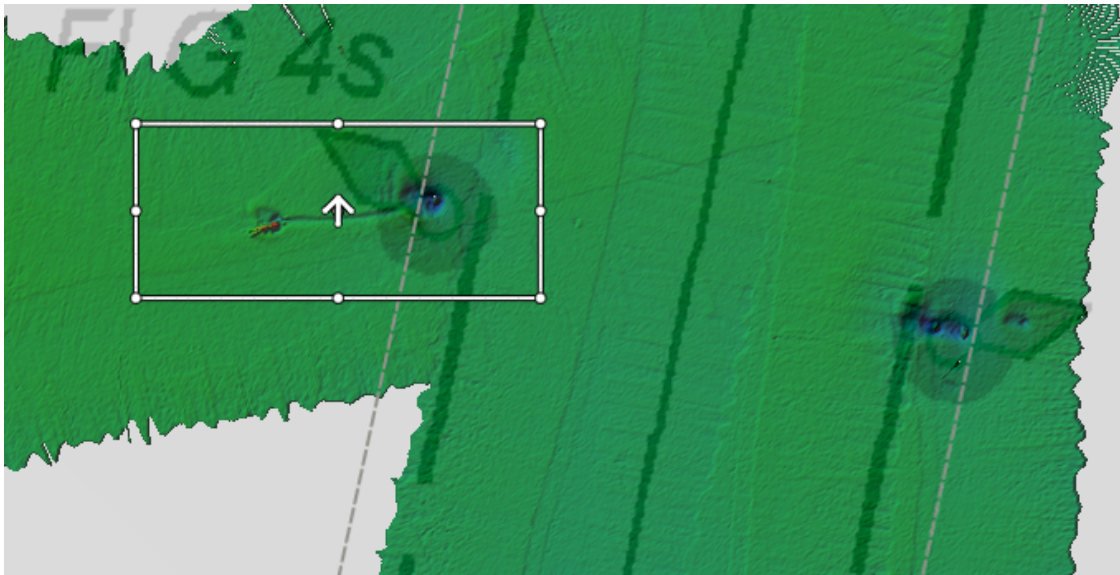
To: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

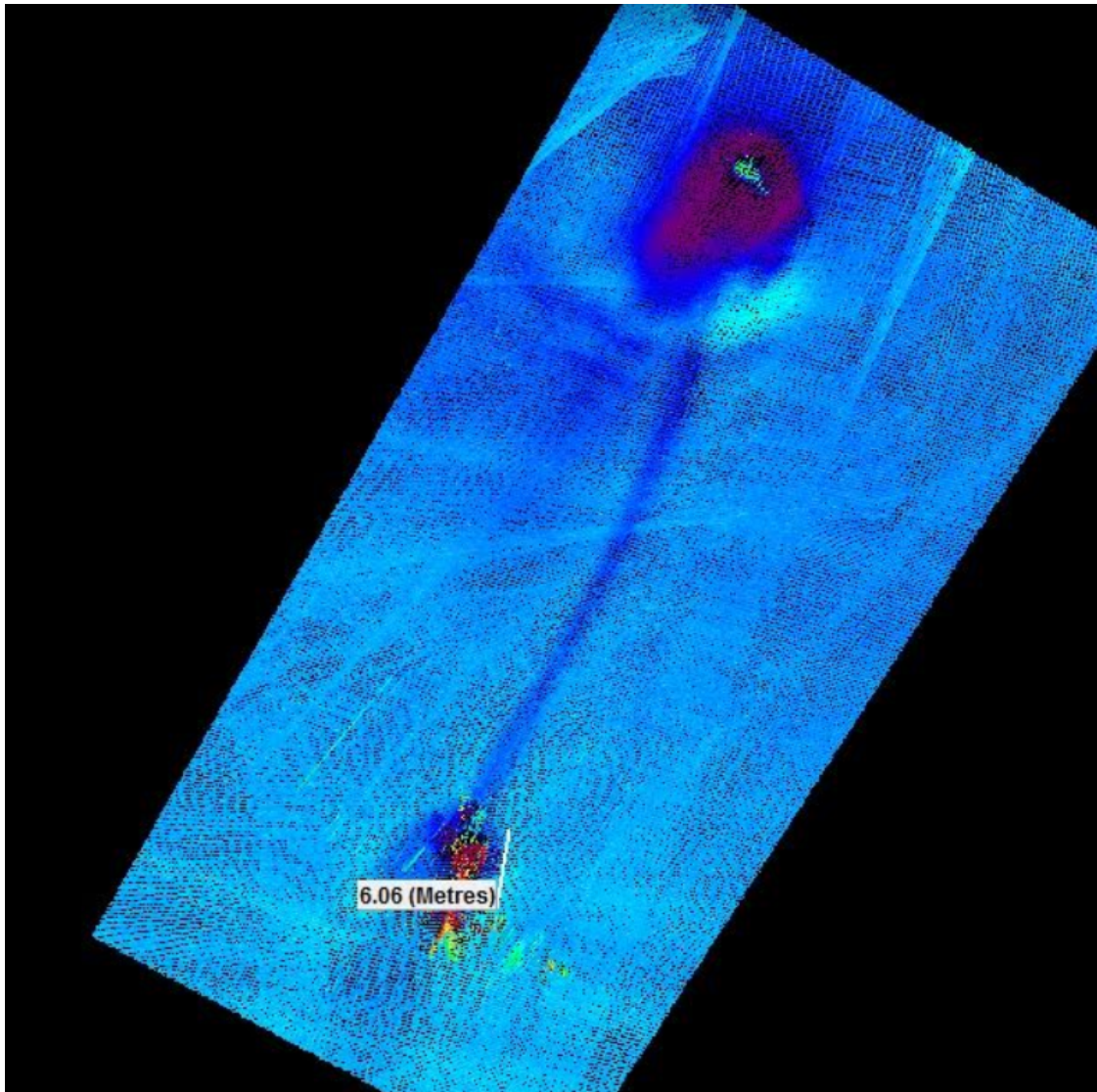
Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>

Ed,

I'm looking at the data now and it appears we may actually have found the buoy afterall.

There is a large object lying on the seafloor outside of the channel:





It looks as if the Buoy sank and is lying on the seafloor west of the channel. The anchor is clearly in position and hasn't moved and there is depression trench running from the anchor to the object that is likely the scour and depression created from the anchor chain.

I've provided the following locations:

Anchor Location

34-37-54.74
46-40-52.18

Possible Buoy Location

34-37-54.45
76-40-54.17

Please let me know if there is anything else that I can provide at this time.

Dave

[Quoted text hidden]

Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>

Mon, Sep 9, 2019 at 6:28 AM

To: Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>

Cc: Edward Owens - NOAA Federal <edward.owens@noaa.gov>, David Neff <david@etracinc.com>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>

Hi Dave,

This is great news! Thank you for these graphics and the buoy/anchor location.

Kyle/Ed, are you able to pass this information along the appropriate POC with USCG / USACE?

Dave, do you mind including Kyle Ward (CC'd here) on future correspondence? Kyle is the southeast navigation manager and typically oversees NC-coast responses. Ed moved south to assist with post-Dorian response, but as everyone travels back to their home-base, it would be helpful if we could include Kyle on correspondence for continuity purposes.

Thank you!

Christy

----- Forwarded message -----

From: **David Neff** <david@etracinc.com>

Date: Mon, Sep 9, 2019 at 9:15 AM

Subject: Re: eTrac Progress Update

[Quoted text hidden]

[Quoted text hidden]

[Quoted text hidden]

David Neff <david@etracinc.com>

Mon, Sep 9, 2019 at 6:29 AM

To: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Edward Owens - NOAA Federal <edward.owens@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>

All,

Below is a link to download the deliverable package for F00790 Wilmington Channel. This is the same package I sent last night with the addition of the 1m gridded data in SPCS NC USFT. Note: this is a 1m resolution converted to feet, so the grid spacing is a bit odd. 3.28 x 3.28 ft.

[DOWNLOAD PACKAGE](#)

Dave

[Quoted text hidden]

Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Mon, Sep 9, 2019 at 6:40 AM

To: David Neff <david@etracinc.com>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>

Hello Dave,

Thank you for responding to this need, USCG was very grateful for this information.

V/a,

-Ed

[Quoted text hidden]

Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Mon, Sep 9, 2019 at 6:50 AM

To: David Neff <david@etracinc.com>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>

Received, thank you Dave.

-Ed

[Quoted text hidden]

[Quoted text hidden]

David Neff <david@etracinc.com>

Mon, Sep 9, 2019 at 7:38 AM

To: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>

All,

I have updated the tracker with all coverage for both channels. I've also included a 3D manipulatable representation of sunken Green 5 which can be accessed by clicking on the "X" at the location of Green 5.

dorian.etracinc.com

U: NOAA

P: etrac3245!

Let me know if you have any questions,

Dave

[Quoted text hidden]

David Neff <david@etracinc.com>

Mon, Sep 9, 2019 at 9:28 AM

To: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>

Hello All,

Attached is the spreadsheet with all Buoy locations for both channels.

Dave

[Quoted text hidden]

 **Buoy_Locations.xlsx**
14K

David Neff <david@etracinc.com>

Mon, Sep 9, 2019 at 12:08 PM

To: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>

Hello All,

I have included the complete deliverable package for both channels in the download link below:

[Download Link](#)

The package includes

- XYZ data for each channel in State Plane NC US Feet (1m and 25ft resolutions)
- Graphics showing depth bands based on authorized and charted channel depths
- Buoy locations, minus Green #5, which has a separate email chain and information associated with it.

Please let me know if you have any questions, or would like to see anything different. We will be doing a final review for shoal soundings and DTONS, I will update if there is anything found.

Dave

[Quoted text hidden]

David Neff <david@etracinc.com>

Mon, Sep 9, 2019 at 12:14 PM

To: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>

Hi Again,

We are wondering if we should be submitting the Green 5 buoy as a DTON, it seems salvage operations are underway, so perhaps not? Please advise.

Dave

[Quoted text hidden]

Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Mon, Sep 9, 2019 at 12:25 PM

To: David Neff <david@etracinc.com>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>

Hello Dave,

No, a DTON is not necessary. I just confirmed the USCG recovered the buoy within the hour of providing the data to them today. Well done, thank you.

V/a,

-Ed

[Quoted text hidden]



David Neff <david@etracinc.com>

Mid-Atlantic Navigation Manager Introduction

5 messages

Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>

Fri, Sep 6, 2019 at 1:46 PM

To: Edward Owens - NOAA Federal <edward.owens@noaa.gov>, David Neff <david@etracinc.com>

Hi Dave,

I wanted to introduce you to Ed Owens, he is our mid-Atlantic navigation manager and is currently operating out of Wilmington in response to Hurricane Dorian. He's in close contact with USACE and USCG to help coordinate response efforts, so I wanted to be sure you had his contact information.

Thank you!

Christy

--

Christy Fandel
Contracting Team Lead, Operations Branch
Office of Coast Survey, NOAA
(o) 240 - 533 - 0032 | (m) 704 - 995 - 6481

Check out [NOAA's 2019 Hydrographic Survey Projects](#) &
find us on [Facebook](#), [Twitter](#), and the [NOAA Coast Survey Blog](#)

David Neff <david@etracinc.com>

Fri, Sep 6, 2019 at 2:04 PM

To: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>

Cc: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Thanks for the intro Christy. Pleased to meet you Ed.

We have a good handle on the needs of the response effort and feel we've put together an efficient team to quickly and responsibly move this data through our NOAA contracting vehicle to the hands of authoritative figures in the port reopening. Please feel free to reach out at anytime to me directly. My cell is 415-517-0020. I will be sure to include you on any coverage/progress/daily updates over the next few days and we perform the work.

I think the only outstanding item at this point is the resolution and grid format for the XYZ data intended for USACE. We are otherwise clear on the deliverable to NOAA.

Dave

[Quoted text hidden]

--

David Neff, C.H.

Mobile: (415) 517-0020

www.etracinc.com

Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>

Fri, Sep 6, 2019 at 2:13 PM

To: David Neff <david@etracinc.com>

Cc: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Hi Dave,

Thank you for the reminder, I spoke with Ed and he's confident a 1 m x 1 m grid will meet the needs of USACE/USCG for the XYZ deliverable.

I'm still working on the separation model - it's coming!

Christy

[Quoted text hidden]

David Neff <david@etracinc.com>

Fri, Sep 6, 2019 at 2:30 PM

To: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>

Cc: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Ok sounds good, we will proceed with the 1m grid.

[Quoted text hidden]

Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Fri, Sep 6, 2019 at 3:07 PM

To: David Neff <david@etracinc.com>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>

Hello Dave,

Very good to make your acquaintance as well. I'm glad you all were able to contribute in the ongoing response effort. I appreciate you keeping me informed on how your operations are going. If you require any support or clarification please let me and Christy know. I look forward to working with you.

V/a,

-Ed

On Fri, Sep 6, 2019 at 5:05 PM David Neff <david@etracinc.com> wrote:

[Quoted text hidden]

--

Edward Owens

Mid-Atlantic Navigation Manager (Acting)

NOAA's National Ocean Service

Office of Coast Survey, Navigation Surveys Division

439 West York Street

Norfolk, Virginia 23510

(757) 364-7471 | Office

(571) 305-0995 | Mobile Work

(757) 319-5760 | Mobile Other

Edward.Owens@noaa.gov

MidAtlantic.NavManager@noaa.gov



David Neff <david@etracinc.com>

Preliminary DtoN Shoal Soundings in F00791

2 messages

Lisa Diamond <lisa@etracinc.com>

Wed, Sep 11, 2019 at 4:39 PM

To: castle.e.parker@noaa.gov, christina.fandel@noaa.gov

Cc: Isadora Kratchman <izzy@etracinc.com>, David Neff <dave@etracinc.com>

Hello Gene,

In F00791 we have found four areas that differ from the chart. These four areas are shoals and a shoal sounding/potential DtoN S-57 file has been created. The first shoal sounding in the cluster has been filled out completely. Please let us know your thoughts on if these should be submitted officially as DtoNs.

Originally we thought there would be more DtoNs, as we were referencing the RNC. When we re-evaluated the surveyed depths to the ENC depths and saw that the ENC channel/dredge depths were different than the RNC. Therefore, when using the ENC for detecting potential DtoNs, there were only four potential DtoNs.

Also attached is a 1m tiff of the area for reference.

Best Regards,

--

Lisa Diamond

Hydrographic Surveyor

Mobile: (847) 414-6783

www.etracinc.com

2 attachments



F00791_1m_ColoredbyDepth0to30m.tif
17013K



F00791_Dton_01.zip
579K

Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>

Thu, Sep 12, 2019 at 10:47 AM

To: David Neff <dave@etracinc.com>, Lisa Diamond <lisa@etracinc.com>

Cc: Isadora Kratchman <izzy@etracinc.com>, Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Edward Owens - NOAA Federal <edward.owens@noaa.gov>, AHB Chief - NOAA Service Account <ahb.chief@noaa.gov>

Good day all,

I've compared the prelim F791 DtoN submission to the F791 data provided to the USACE submitted data. I imported the 1m XYZ into CARIS BDB as a point cloud and created a shoal biased sounding selection 1mm@20k or 20m interval and a 5m sounding selection as well. As portrayed within the following images, I don't see parity with the depth values of the submitted prelim DtoNs; maybe the depth difference is related to the level of precision or the translation of the original FT value to metric during the import and the rounding value referenced as X.75ft. However,

I've attached a selection of soundings that are recommended for chart application. Two exceptions should not be included in the 28ft and 33ft depth as they reside within the channel limits and will wait to see how the USACE responds. I've included in the selection so that they don't get overlooked if the USACE does not respond. Depth units listed below are in Feet.

US 0005886632 00001,SOUNDG,34-39-41.902N,076-40-20.585W,33.563

US 0005886526 00001,SOUNDG,34-40-14.987N,076-40-19.993W,20.538

US 0005887804 00001,SOUNDG,34-41-41.603N,076-40-18.944W,9.482

US 0005877818 00001,SOUNDG,34-40-26.707N,076-40-17.399W,13.058

US 0005878165 00001,SOUNDG,34-40-51.962N,076-40-12.563W,25.427

US 0005877873 00001,SOUNDG,34-41-37.835N,076-40-19.144W,6.398

US 0005887806 00001,SOUNDG,34-41-50.726N,076-40-23.530W,27.756

US 0005887799 00001,SOUNDG,34-41-43.736N,076-40-19.616W,9.744

US 0005887800 00001,SOUNDG,34-41-49.173N,076-40-23.184W,14.600

US 0005887801 00001,SOUNDG,34-41-19.679N,076-39-58.658W,10.302

Thanks for the opportunity to review and respond.

Cheers,

Gene

Castle Eugene Parker

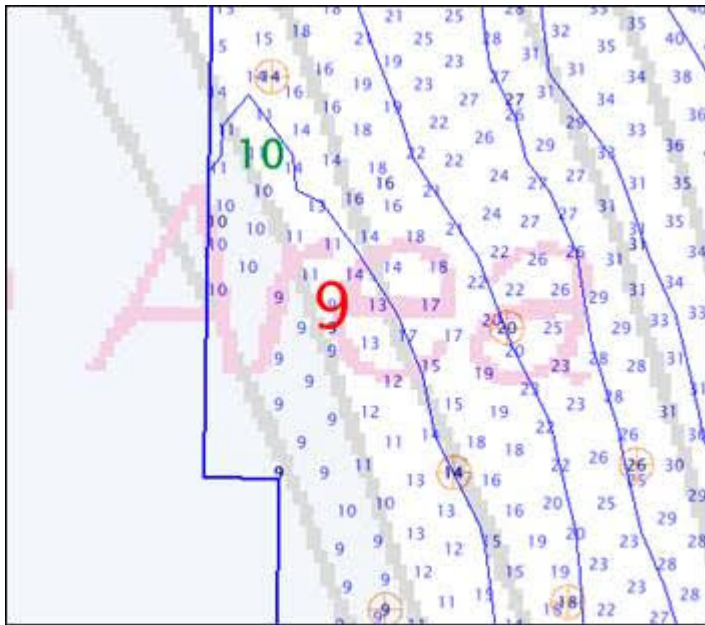
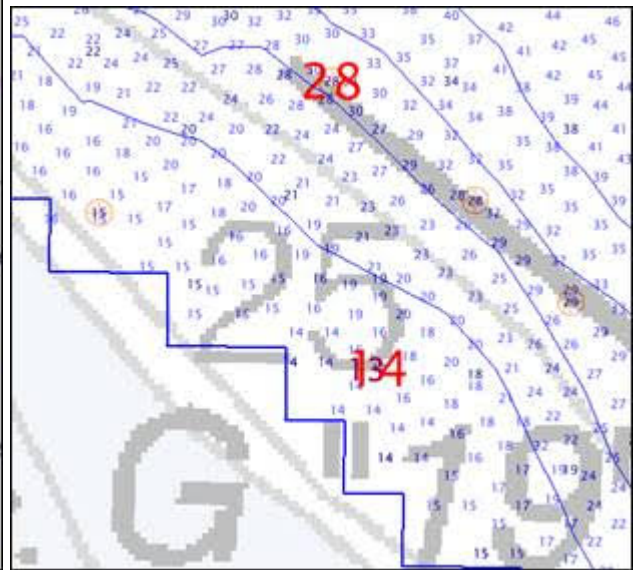
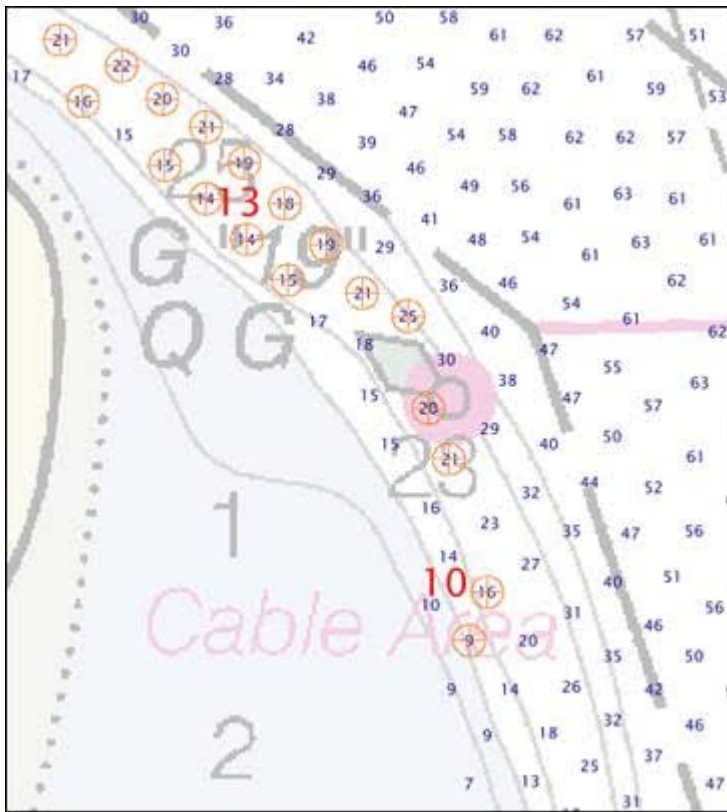
NOAA Office of Coast Survey

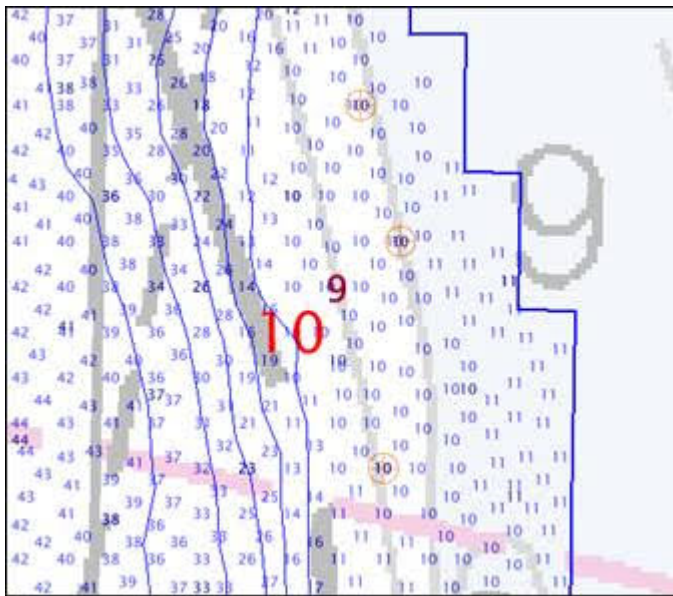
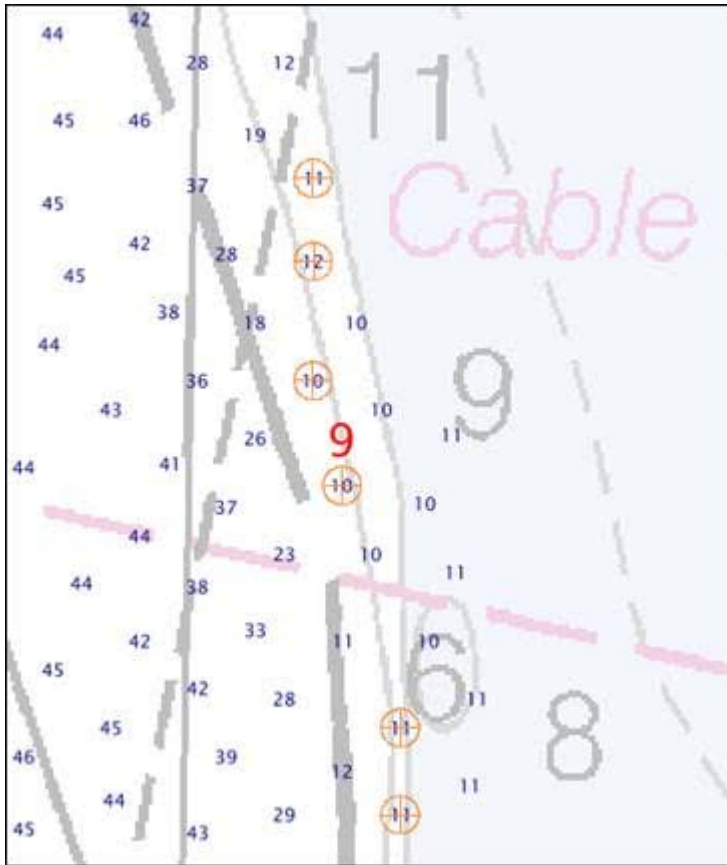
Atlantic Hydrographic Branch

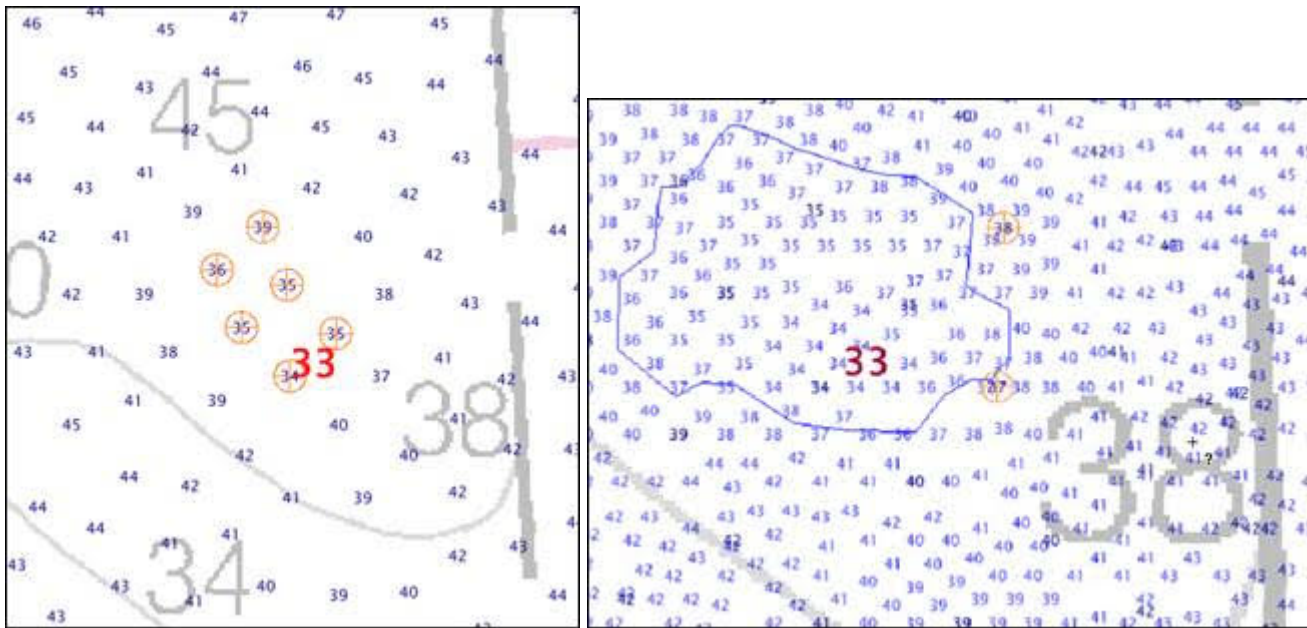
Hydrographic Team Lead / Physical Scientist

castle.e.parker@noaa.gov

office (757) 364-7472







Numerous 34ft (33.760ft) rounded depth reside within the common area.

[Quoted text hidden]

 **F00791 DtoNs selection.000**
4K



David Neff <david@etracinc.com>

RE: DTONs within Port of Beaufort Entrance Channel

6 messages

Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>

Wed, Sep 11, 2019 at 4:57 AM

To: Edward Owens - NOAA Federal <edward.owens@noaa.gov>, David Neff <david@etracinc.com>

Good morning,

I wanted to compare the coverage of survey F791 (2019) to survey D193 (2015) that also was surveyed by GeoDynamics. What are the positional coordinate units in the F791 XYZ file?

2692741.04 357949.45 -47.15

2692744.70 358021.83 -48.56

2692743.22 358468.33 -51.51

2692720.80 358454.30 -51.51

2692695.76 358423.74 -51.64

Understand depth units would be in feet. I was using project of State Plane NC and when importing XYZ to CARIS point cloud it's not projecting correctly. Are the units in feet, or are the units metric ground units?

The reason for comparison is to minimize the survey review of D193 based upon the coverage of F791. D193 is AHB oldest survey and because of the age of the survey I've been neglecting it and prioritizing ISD and higher priority ESD. I'd like to minimize D193 level of effort by sourcing F791 for supersession.

Thanks for info,

gp

*Castle Eugene Parker**NOAA Office of Coast Survey**Atlantic Hydrographic Branch**Hydrographic Team Lead / Physical Scientist*castle.e.parker@noaa.gov*office (757) 364-7472***From:** Tara Wallace - NOAA Federal <tara.wallace@noaa.gov>**Sent:** Wednesday, September 11, 2019 7:20 AM**To:** Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>

Cc: Edward Owens - NOAA Federal <edward.owens@noaa.gov>; Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>; Castle Parker <castle.e.parker@noaa.gov>; Corey Allen - NOAA Federal <corey.allen@noaa.gov>; Lucy Hick <lucy.hick@noaa.gov>; Daniel Morrow <daniel.morrow@noaa.gov>; Brian Martinez <brian.martinez@noaa.gov>

Subject: Re: DTONs within Port of Beaufort Entrance Channel

Thanks Christy -

Ed - were you successful in delivering the data package to USCG and/or USACE and was there a response to what they will do with the data?

I have reached out to the Production Team. Is it possible for us to work with the entire survey instead of receiving DTON's?

Tara

On Tue, Sep 10, 2019 at 10:07 PM Christina Fandel - NOAA Federal <christina.fandel@noaa.gov> wrote:

Hi All,

I am writing to request guidance regarding the communication of observed shoaling beyond the charted maintained channel depths within the Beaufort, NC entrance channel.

Following Hurricane Dorian, one of our contracted field units was deployed to complete multibeam survey operations within the Beaufort entrance channel and identified multiple observations of shoaling beyond charted depths. Given this was an emergency response survey, these observations were immediately communicated to the navigation manager, Ed Owens (see attached deliverable), who then provided the data deliverable to USCG and USACE (**Ed**, can you confirm the data package was sent to the appropriate USCG/USACE personnel?).

Tara - assuming USCG/USACE were provided the attached data package (xyz multibeam dataset and shoaling images), would you recommend we still instruct the contracted field unit to submit these observations through the DTON workflow? While I want to ensure this information is appropriately and adequately communicated to the mariner, I also want to limit any potential duplication of work, if this information has already been communicated through the appropriate channels.

Thank you and please do not hesitate to reach out if you have any questions,

Christy

 [Wilmington_Beaufort_Channels.zip](#)

--

Christy Fandel

Contracting Team Lead, Operations Branch

Office of Coast Survey, NOAA

(o) 240 - 533 - 0032 | (m) 704 - 995 - 6481

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find us on [Facebook](#), [Twitter](#), and the [NOAA Coast Survey Blog](#)

--

Tara Wallace, Branch Chief

Nautical Data Branch, Marine Chart Division

Office of Coast Survey, National Ocean Service

Telephone number: 240-847-8102



David Neff <david@etracinc.com>
To: Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
Cc: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Wed, Sep 11, 2019 at 6:37 AM

Gene, all units are US feet. Are you still having problems projecting the data?

[Quoted text hidden]

--

David Neff, C.H.

Mobile: (415) 517-0020

www.etracinc.com

Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
To: David Neff <david@etracinc.com>
Cc: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Wed, Sep 11, 2019 at 8:27 AM

This was earlier in the morning. I'm using a CARIS Info file for the import. The Info file is one that I used for the USACE XYZ import, the only difference was the State Plane selection of North Carolina instead of Pennsylvania. I've attached the info file for review/reference. Wonder if this is a CARIS NC State Plane issue.

I'm going to try again and see what happens, and possibly create a new info import file.

Thanks for the response.

gp

Castle Eugene Parker

NOAA Office of Coast Survey

Atlantic Hydrographic Branch

Hydrographic Team Lead / Physical Scientist

castle.e.parker@noaa.gov

office (757) 364-7472

[Quoted text hidden]

 **USACE_StatePlaneNAD83_NC_XYZ BDB44.info**
2K

Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
To: David Neff <david@etracinc.com>
Cc: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Wed, Sep 11, 2019 at 9:01 AM

Hey Dave,

Figured it out. The CARIS NC State Plane Cartesian coordinates wants metric values on the import. Had to apply multiplication factor of 0.30479999 to be the X and Y values and then it projected correctly. Also applied multiplication factor of 0.30479999 to the depth so that we could reference the CARIS sounding rounding file and bounce between metric and feet units.

All is good.

Thanks,

gp

Castle Eugene Parker

NOAA Office of Coast Survey

Atlantic Hydrographic Branch

Hydrographic Team Lead / Physical Scientist

castle.e.parker@noaa.gov

office (757) 364-7472

[Quoted text hidden]

Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>

Thu, Sep 12, 2019 at 5:55 AM

To: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Lucy Hick - NOAA Federal <lucy.hick@noaa.gov>, Daniel Morrow - NOAA Federal <daniel.morrow@noaa.gov>, Brian Martinez - NOAA Federal <brian.martinez@noaa.gov>, Tara Wallace - NOAA Federal <tara.wallace@noaa.gov>, David Neff <david@etracinc.com>

Agree Ed, we need to allow USACE to evaluate and determine their response prior to submitting the eTrac results to NDB/MCD. This is similar to what AHB recently encountered in the Corpus Christi TX channels with USACE. AHB has received the DtoN submission from eTrac and I will import and reference. At the time of this email I have not reviewed the submission, but whatever resides within the USACE domain will have to wait for USACE response and AHB will deal with anything outside the channel limits. Please inform us all of the USACE response as soon as you receive information.

Regards,

gp

Castle Eugene Parker

NOAA Office of Coast Survey

Atlantic Hydrographic Branch

Hydrographic Team Lead / Physical Scientist

castle.e.parker@noaa.gov

office (757) 364-7472

From: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Sent: Thursday, September 12, 2019 8:37 AM

To: Tara Wallace - NOAA Federal <tara.wallace@noaa.gov>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>; Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>; Castle Parker <castle.e.parker@noaa.gov>; Corey Allen - NOAA Federal <corey.allen@noaa.gov>; Lucy Hick <lucy.hick@noaa.gov>; Daniel Morrow <daniel.morrow@noaa.gov>; Brian Martinez <brian.martinez@noaa.gov>

Subject: Re: DTONs within Port of Beaufort Entrance Channel

Good morning all,

Yes, the entire eTrac package was delivered to the correct USACE and USCG personnel on Monday 9/12, as soon as it was made available. USACE in Wilmington confirmed before receiving the eTrac data that there are multiple areas in both channels that are not at project depth that they are aware of. The best course of action was to allow the USACE to evaluate the data and compare it to their known shoaling regions. This is what I had discussed with them and what they had requested.

I have been travelling all this week, so my access to email has been somewhat limited. I will reach back out to USACE again today to confirm whether or not the data is in agreement with their recent in-house survey findings. Is this agreeable with MCD?

V/r,
-Ed

[Quoted text hidden]

Edward Owens
Mid-Atlantic Navigation Manager (Acting)

NOAA's National Ocean Service

Office of Coast Survey, Navigation Surveys Division

439 West York Street

Norfolk, Virginia 23510

(757) 364-7471 | Office

(571) 305-0995 | Mobile Work

(757) 319-5760 | Mobile Other

Edward.Owens@noaa.gov

MidAtlantic.NavManager@noaa.gov

Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Thu, Sep 12, 2019 at 6:19 AM

To: Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>

Cc: Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Lucy Hick - NOAA Federal <lucy.hick@noaa.gov>, Daniel Morrow - NOAA Federal <daniel.morrow@noaa.gov>, Brian Martinez - NOAA Federal <brian.martinez@noaa.gov>, Tara Wallace - NOAA Federal <tara.wallace@noaa.gov>, David Neff <david@etracinc.com>

Gene,

Very good, I will report out what USACE response. From my discussions with USACE, the majority of what we are seeing existed pre-storm. The MB dataset will obviously have added to their awareness.

V/a,

-Ed

[Quoted text hidden]

APPROVAL PAGE

F00791

Data meet or exceed current specifications as certified by the OCS survey acceptance review process. Descriptive Report and survey data except where noted are adequate to supersede prior surveys and nautical charts in the common area.

The following products will be sent to NCEI for archive

- Descriptive Report
- Data Acquisition and Processing Report
- Collection of Bathymetric Attributed Grids (BAGs)
- Processed survey data and records
- Geospatial PDF of survey products
- Collection of backscatter mosaics

The survey evaluation and verification have been conducted according to current OCS specifications, and the survey has been approved for dissemination and usage of updating NOAA's suite of nautical charts.

Approved: _____

Commander Meghan McGovern, NOAA
Chief, Atlantic Hydrographic Branch