Ferdinand R. Hassler Survey Planning
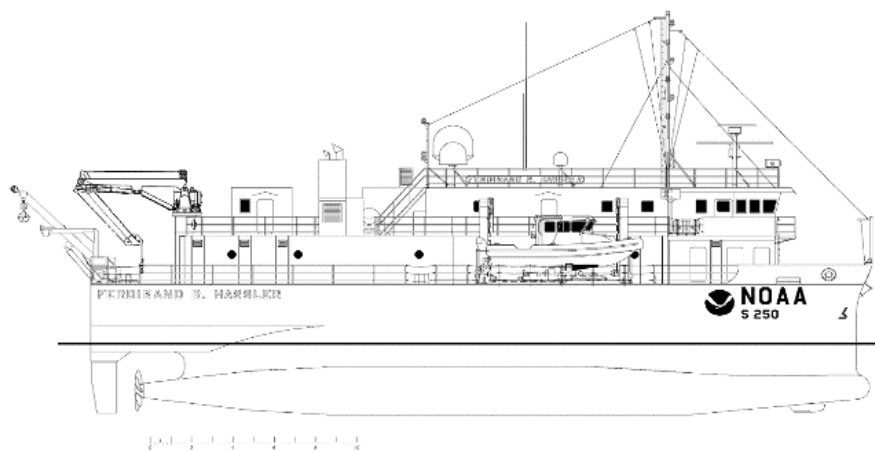Standard Operating Procedures

Revision History

Date	Revision Description (Reason/What)	Updated by
4/30/2013	Original Draft	HSST Moehl
4/22/2019	General Updates	LT John Kidd
5/3/2021	General Updates	PS Charles Corea
11/19/2023	Reviewed	LT Patrick Debroisse

CONTENTS

1. OVERVIEW

This document is to ensure the complete and uniform planning of all new projects and surveys aboard the *Ferdinand R. Hassler*. This document leads the hydrographer through the following preparation steps.

- The Hydrographic Survey Division (HSD) OPS provided Project Instructions (PIs) – understanding provided files and transforming into useable formats.

- Creating the necessary folder/file structure

- Creating supporting files

- Setting up the HYPACK project

2. PROCEDURE

The Field Operations Officer (FOO) or a survey member specifically tasked by the FOO will complete the listed tasks below. It is the responsibility of the FOO to update the template folder structures and files at the beginning of the field season to accommodate the ever changing 'industry best practices' and new procedures and requirements.

3. WORK INSTRUCTIONS

Hydrographic Survey Division Operations Branch (HSD OPS) via the Marine Operations Center provides a Project Instruction package containing relevant project information for creation of hydrographic survey projects. Section 2.2 of the Field Procedures Manual (FPM) outlines the contents of the Project Instructions.

HSD OPS provides the approved and signed PIs. Downloading the PI package should be the first step of setting up new projects and is usually completed by the FOO. Important information found in the PIs are as follows; sheet registry numbers, coverage requirements, and assigned tasks. Assigned tasks may include shoreline investigation, updating the Coast Pilot, or special feature investigations such as Maritime Boundary points and/or AToN investigations.

Read the project instructions in their entirety and look for errors or missing information. Do not be afraid to ask the FOO to contact HSD OPS to seek clarification as well as letting them know of deficiencies or inconsistencies. It will be much easier to fix any errors before commencing acquisition rather than down the road. Archive any correspondence.

   A) Folder and File Structure

The FOO will use the template folders at P:\Survey_Storage\00_PROJECTS\YYYY to start the folder structure for a new year.

The folder structures are created automatically for the RAW and PROC drives by using the Pydro Explorer program, Charlene. It may feel awkward not prepping these folder structures before beginning the project/sheet but rest assured, you will be much better off letting Charlene manage

Hard Copy of this SOP is obsolete- the OCS QMS electronic procedure is valid

the files and folders that abide by the current Hydrographic Survey Specifications and Deliverables (HSSD) requirements.

Recommendation: Sheet plans should be done well in advance. On the fly planning during transit to the survey grounds is stressful. This will likely lead to errors that may go unnoticed until post-acquisition.

B) Creating Sheet Limits

    a. Open the Project Reference File (PRF) within CARIS HIPS & SIPS.

    b. Create new feature layer and name the layer; HXXXXX_Sheet_Limits

    c. Import all Territorial sea area (TESARE) features within PRF.

        i. File > Import > Import Selected Objects > Selection

    d. Select HXXXXX_Sheet_Limits from drop down. Select Keep object acronym(s).

    e. Save the new file; P:\Survey_Storage\00_PROJECTS\YYYY\OPR-A###-FH-YY\Working_Project_Files\02_HOB

    f. Additionally, export sheet limits from .hob to .shp to be used in HYPACK making sure to select to correct projection within CARIS before exporting.

        i. File >Export>Selection>Shapefile

    g. Save the new file; P:\Survey_Storage\00_PROJECTS\YYYY\OPR-A###-FH-YY\Working_Project_Files\03_SHP

C) Creating Junction Tiffs

    a. Open all junction surveys within CARIS HIPS & SIPS

    b. Displaying one surface at a time, position the window so that entire surface is within the viewfinder. Export each surface;

        i. File > Export > View

        ii. Set File Name; HXXXXX_MB_Xm_MLLW

        iii. Set Output Directory; P:\Survey_Storage\00_PROJECTS\YYYY\OPR-A###-FH-YY\Working_Project_Files\04_TIFF

        iv. Select Output File Format; GeoTIFF

D) Setting up the HYPACK project

It is easiest to copy an earlier project, especially if it is from the same geographical area. Make sure that the Geodesy is set according to project specifications. All projects should be NAD 83 and in their respective UTM Zone.

Next Steps:
- ✓ Load chart (.bsb)
- ✓ Load sheet limits (.shp)
- ✓ Load feature search radius (.shp)
- ✓ Load line plans (.lnw)
- ✓ Load junction surveys (.tiff)
- ✓ Create and save matrix with appropriate depth resolution
- ✓ Save project

4. REFERENCE DOCUMENTS

This document is in alignment with the following regulatory/guidance documentation:

- NOAA Field Procedures Manual, 2021
- Line and Polygon Planning SOP
- Aids to Navigation SOP
- Shoreline SOP
- Maritime Boundary SOP