# VELOCIPY QUICK REFERENCE / SOP

Foreword: This Quick Reference is not aiming at covering all the functionalities that are offered in Velocipy. Instead it is presenting a simple SOP to help the user transfer Sound Speed Profiles data into a .svp file for use in Caris.

a) Velocipy is part of Pydro v10. It is accessible through the
   Windows START button/All Programs/Pydro/Velocipy
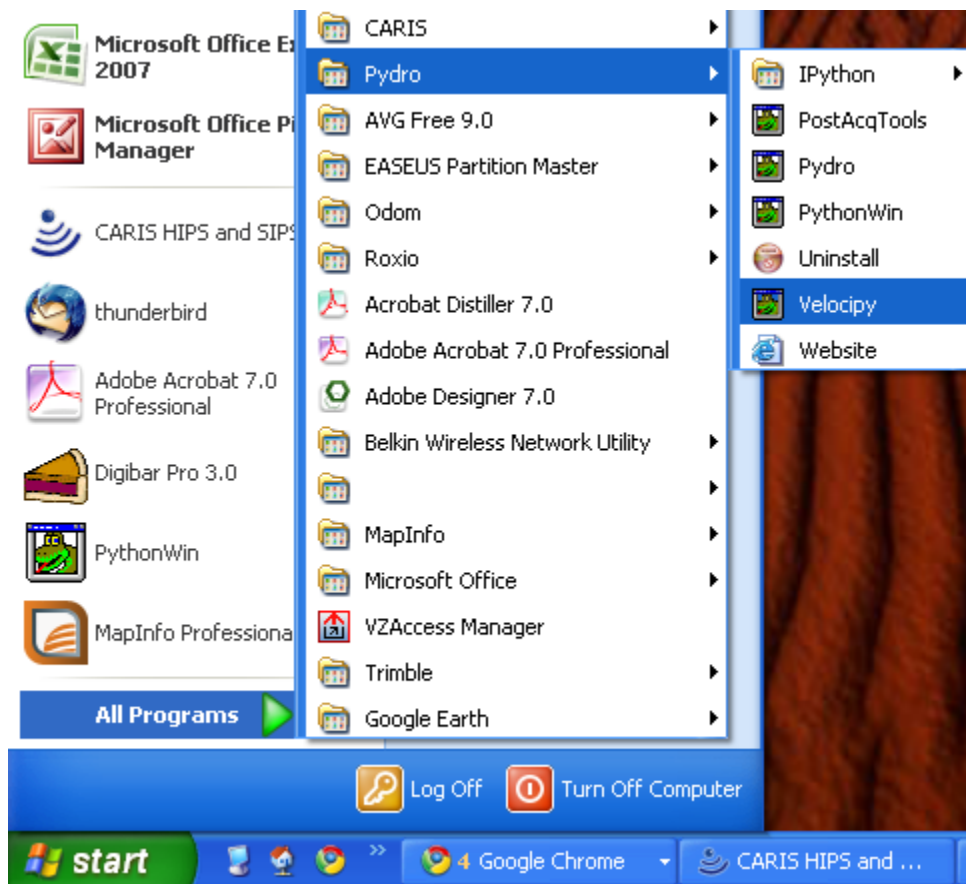
b1) To load casts that were recorded with an **Odom Digibar Pro**, use *File/Load Profiles* and point at your .csv file previously transferred to your computer with the Digibar Pro software.
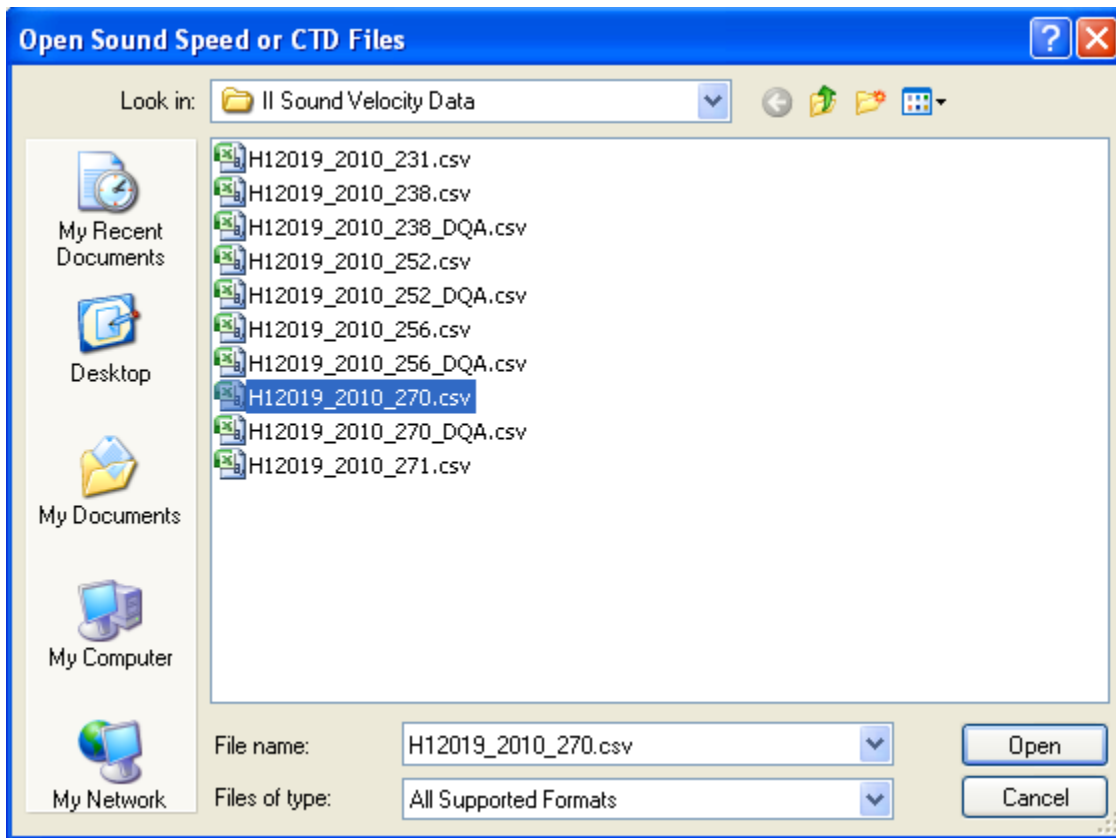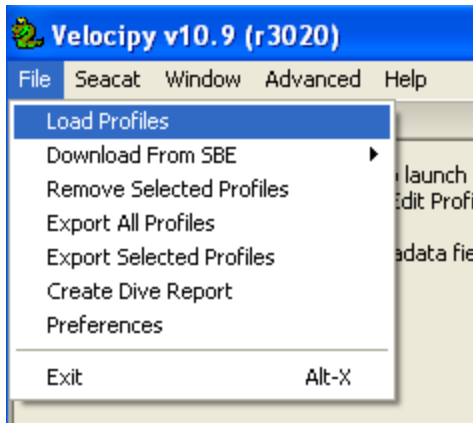
b2) To load a cast that was recorded using a **SBE Seacat**, you will have to download and install a program extension that is available on the Hydrosoft website :
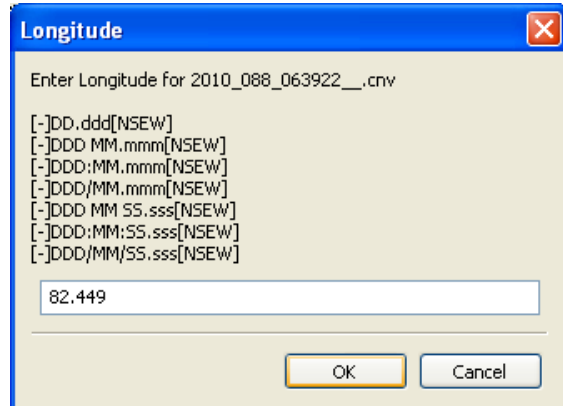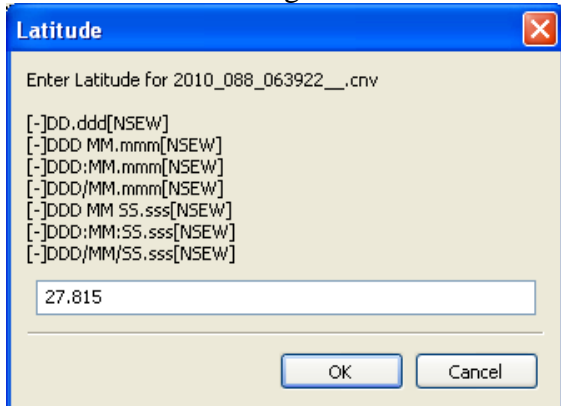https://inside.nos.noaa.gov/hydrosoft/welcome.html
Under the Pydro section, look for: *SBEDataProcessing_Win32_V7_20c.exe*

Then go *to File/ Download from SBE*. You will have the options between download All / Selected / Cast.
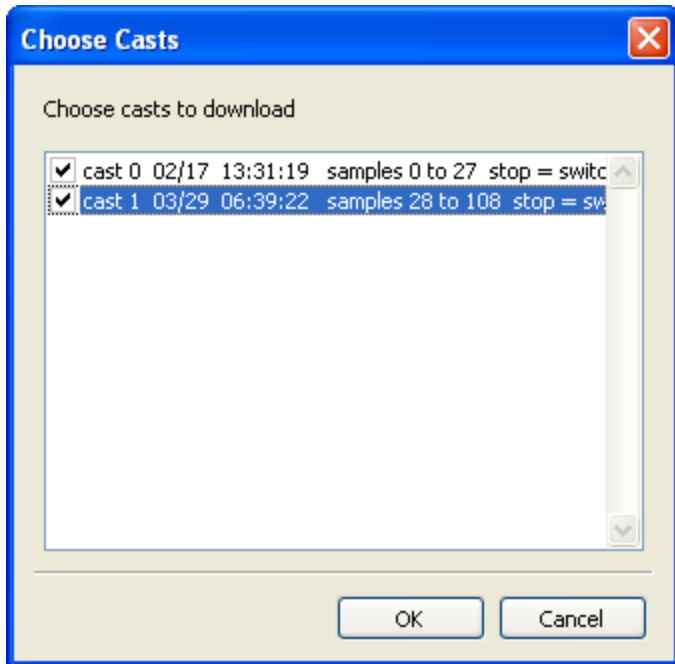
and enter Lat and Long

c) Enter Cast's Attributes:
Enter your project#, Survey#, NOAA Unit, Instrument used, user name, process date, and Latitude and Longitude of your cast.

Then press the 'APPLY' button, and notice the cast attributes in the 'Loaded Profiles' window.
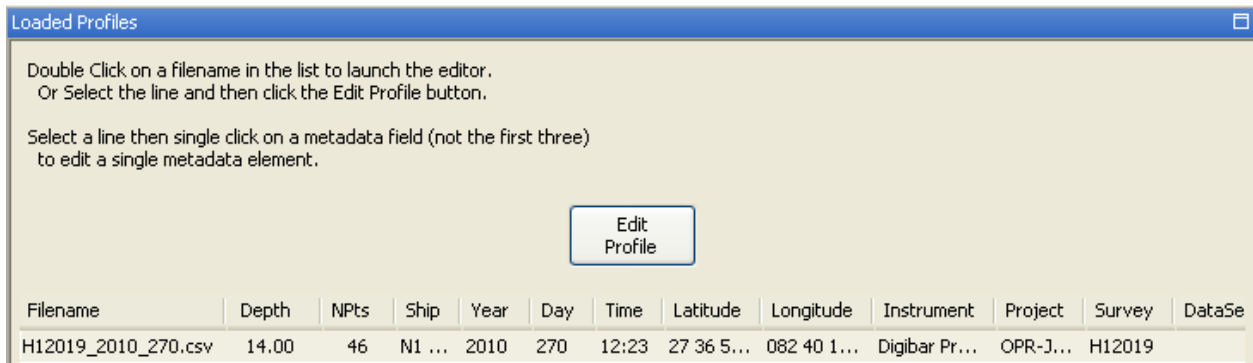
Note 1: If needed, Velocipy has the capacity to extend the depth of your cast, and also do some Edits of the plot.

Note 2: Remember that Velocipy WILL NOT change the metadata of your initial .csv or .hex cast. If you close your cast with *File/Remove Selected Profile* or close out of Velocipy, and then re-load the cast, you will have to re-enter the attributes in the metadata.
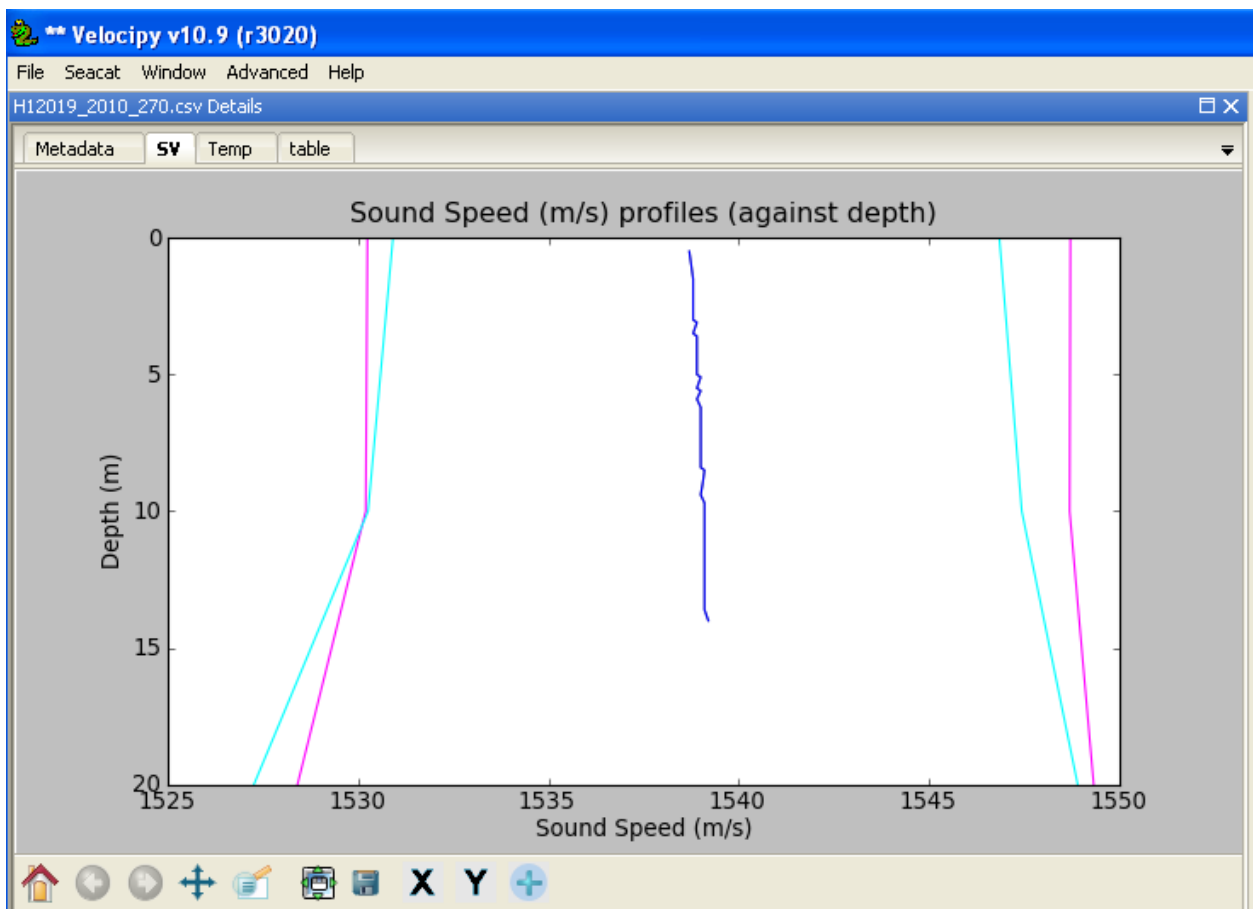
d) A sound velocity graph is viewable by clicking on the *SV tab* in the Metadata window, and you can change the sound speed/depth units (X and Y buttons), zoom in (Magnifier tool), and take a look/edit cast points (+ button). You can select the other tabs to see additional representation of your data: Temperature (n/a for Digibar Pros) and Table view.

Velocipy v10.9 (r3020)

File   Seacat   Window   Advanced   Help

H12019_2010_270.csv Details

Metadata | **SV** | Temp | table

Sound Speed (m/s) profiles (against depth)
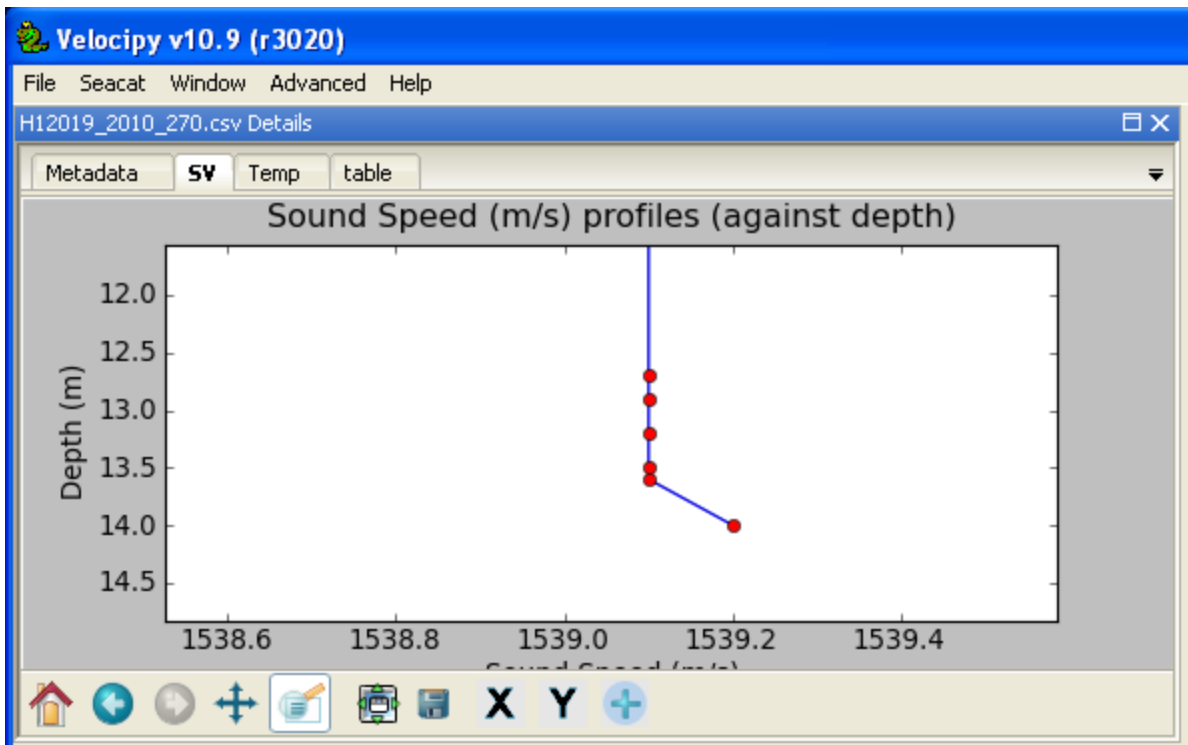
2010_088_063922___.HEX Details

Metadata | SV | Temp | Sal | **table**

	pressure	conductivity	temperature	salinity	density	soundspeed
0	0.1786	3.1697	19.8145	22.2211	15.0903	1506.7111

e) Data Quality Assurance (DQA) / Compare 2 casts

To compare two casts taken simultaneously, select both casts and right-click to choose
'*DQA Compare 2 casts*'

The results will appear in a separate window, and additional information will appear in the Log Window.
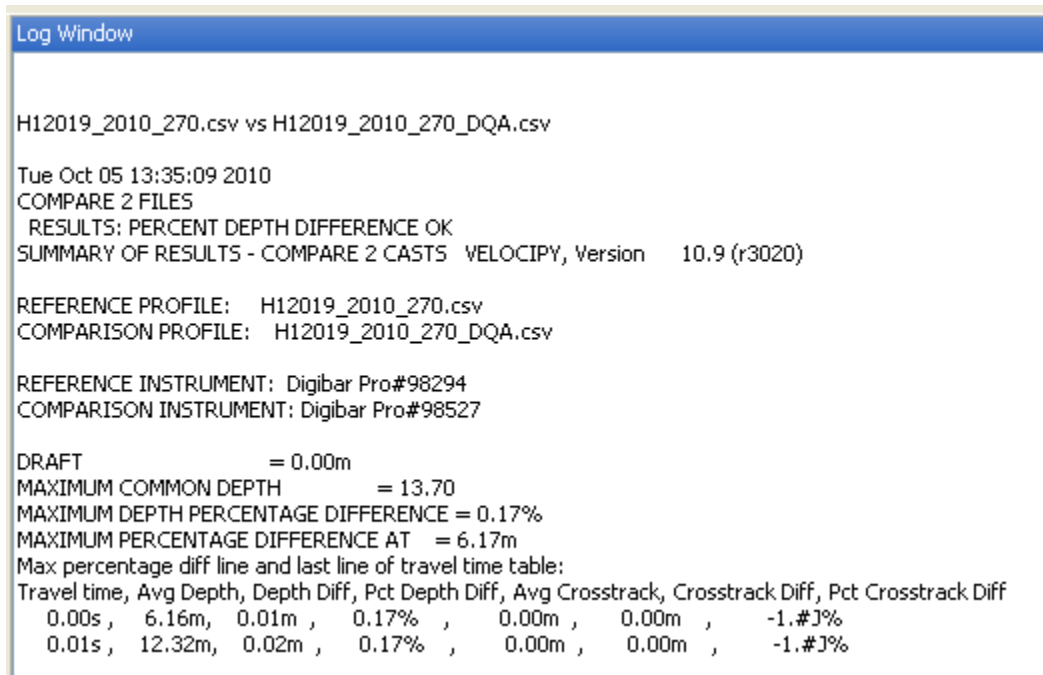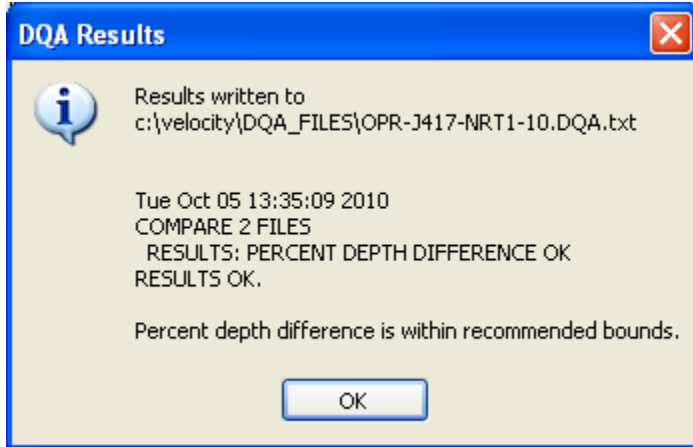
f) Cast Export
You can Export profiles from the File tab. A *File Export Settings* window will pop up, and you can point to your Caris/ SVP folder.
After you click OK, the Log Window should read *'exported sound speed profile successfully'*.

File Export Settings

Select Files to Save

Previously Selected Target Paths

	DEFAULT Data Set ID	Extend To Depth	

☐ Simrad SSP and ASVP Files   `0`   `12000`   `\velocity\EXPORTS\`   [Browse]

☐ HydroStar SVA File   `c:\velocity\EXPORTS\`   [Browse]

☑ Caris HIPS SVP file   `X:\OPR-J417-NRT1-09\H12019\CARIS\SVP`   [Browse]

☑ Append to a Caris HIPS SVP file   `J417-NRT1-09\H12019\CARIS\SVP\H12019.svp`   [Browse]

☐ "Velocwin" Flagged data Q File   `c:\velocity\EXPORTS\`   [Browse]

[OK]   [Cancel]

Log Window

H12019_2010_270.csv vs H12019_2010_270_DQA.csv

Tue Oct 05 13:35:09 2010
COMPARE 2 FILES
 RESULTS: PERCENT DEPTH DIFFERENCE OK
SUMMARY OF RESULTS - COMPARE 2 CASTS   VELOCIPY, Version   10.9 (r3020)

REFERENCE PROFILE: H12019_2010_270.csv
COMPARISON PROFILE: H12019_2010_270_DQA.csv

REFERENCE INSTRUMENT: Digibar Pro#98294
COMPARISON INSTRUMENT: Digibar Pro#98527

DRAFT   = 0.00m
MAXIMUM COMMON DEPTH   = 13.70
MAXIMUM DEPTH PERCENTAGE DIFFERENCE = 0.17%
MAXIMUM PERCENTAGE DIFFERENCE AT   = 6.17m
Max percentage diff line and last line of travel time table:
Travel time, Avg Depth, Depth Diff, Pct Depth Diff, Avg Crosstrack, Crosstrack Diff, Pct Crosstrack Diff
   0.00s ,   6.16m,   0.01m ,   0.17%   ,   0.00m ,   0.00m   ,   -1.#J%
   0.01s ,   12.32m,   0.02m ,   0.17%   ,   0.00m ,   0.00m   ,   -1.#J%

Exported sound speed profiles successfully

That's it!