

https://github.com/pakhuiying/sunglint\_correction

The screenshot shows the GitHub repository page for 'pakhuiying / sunglint\_correction'. The repository is public and has 0 stars, 1 watch, and 0 forks. The 'Code' dropdown menu is open, showing options to clone the repository using HTTPS, SSH, or GitHub CLI, or to download the ZIP file. The repository contains several files and folders, including 'micasense', 'micasense\_tutorials', 'saved\_data', 'sun\_glint\_simulation', '.gitignore', 'README.md', 'get\_training\_data.py', 'mutils.py', 'radiometric\_calib\_utils.py', 'radiometric\_correction.ipynb', and 'warp\_matrices.ipynb'. The 'About' section on the right indicates that no description, website, or topics are provided. The 'Releases' section shows no releases published, and the 'Packages' section shows no packages published. The 'Languages' section shows that the repository is primarily composed of Jupyter Notebook files (99.6%) and Python files (0.4%).

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

main 1 branch 0 tags

Go to file Add file > Code

Local Codespaces New

Clone ?

HTTPS SSH GitHub CLI

[https://github.com/pakhuiying/sunglint\\_correction](https://github.com/pakhuiying/sunglint_correction)

Use Git or checkout with SVN using the web URL.

Open with GitHub Desktop

Open with Visual Studio

Download ZIP

About

No description, website, or topics provided.

Readme

0 stars

1 watching

0 forks

Releases

No releases published

Create a new release

Packages

No packages published

Publish your first package

Languages

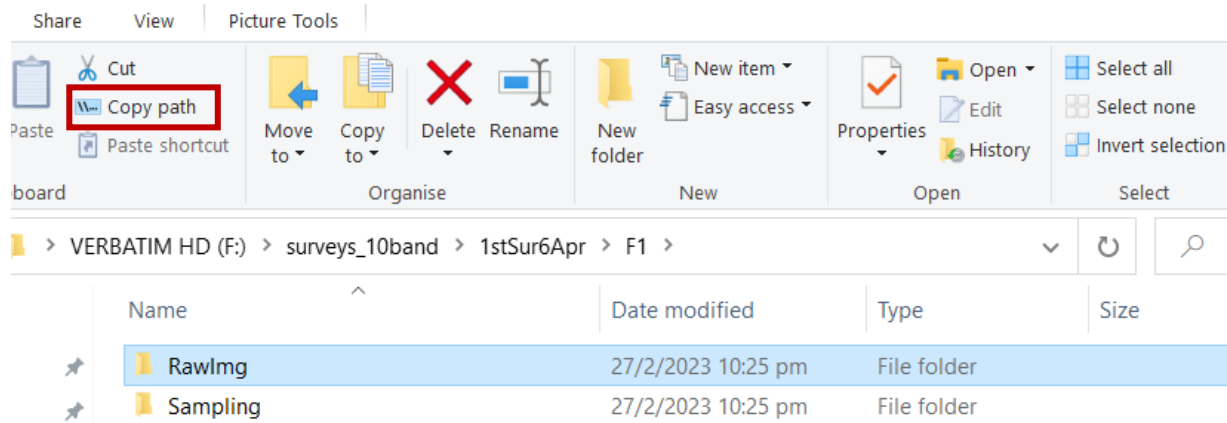
Jupyter Notebook 99.6% Python 0.4%

git clone https://github.com/pakhuiying/sunglint\_correction.git

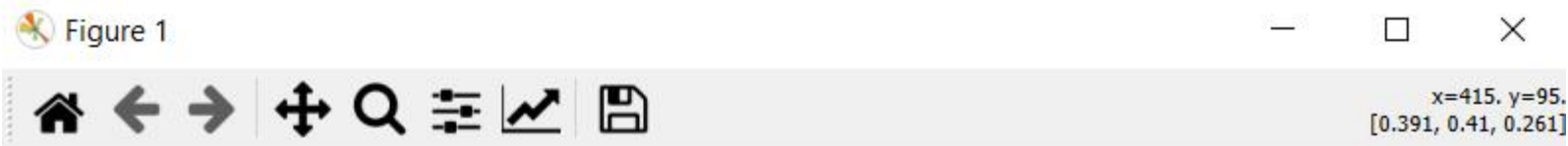
OR Download ZIP

- 1) cd to directory where the folder is cloned/downloaded
- 2) Run get\_training\_data.py
- 3) Go to directory where raw images are stored → Copy path of the folder
- 4) A prompt will appear to ask you to enter the directory of the image: paste the path of the folder
- 5) Wait for a few seconds to load the images

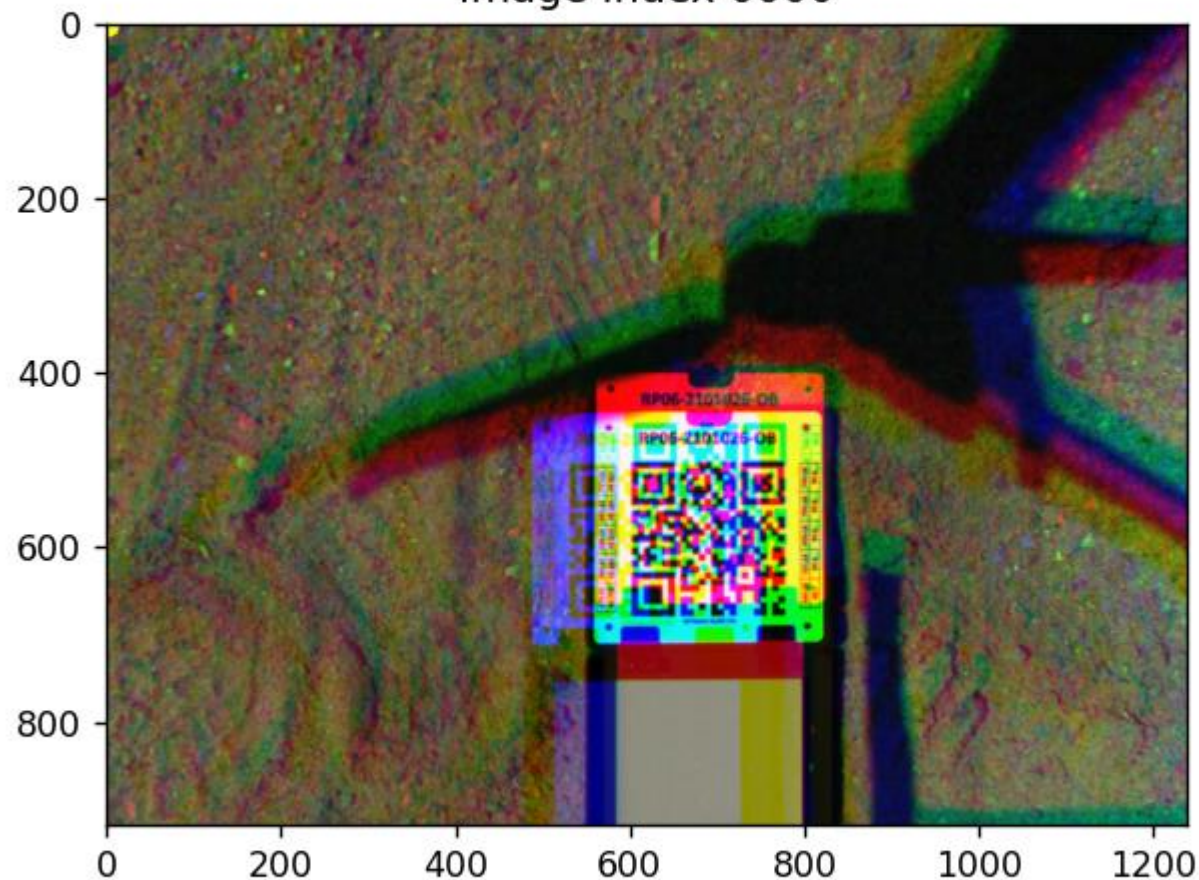
```
(micasense) D:\PAKHUIYING\Image_processing\F3_raw_images\Simulate_sun_glint>C:/Users/xinmatrix/anaconda3/envs/micasense/python.exe d:/PAKHUIYING/Image_processing/F3_raw_images/Simulate_sun_glint/get_training_data.py
Enter directory: 
```



```
(micasense) D:\PAKHUIYING\Image_processing\F3_raw_images\Simulate_sun_glint>C:/Users/xinmatrix/anaconda3/envs/micasense/python.exe d:/PAKHUIYING/Image_processing/F3_raw_images/Simulate_sun_glint/get_training_data.py
Enter directory: "F:\surveys_10band\2ndSur28Apr\F1\RawImg"
```



Select T, W, TG, WG, S areas  
Image Index 0000



turbid\_glint

water\_glint

turbid

water

shore

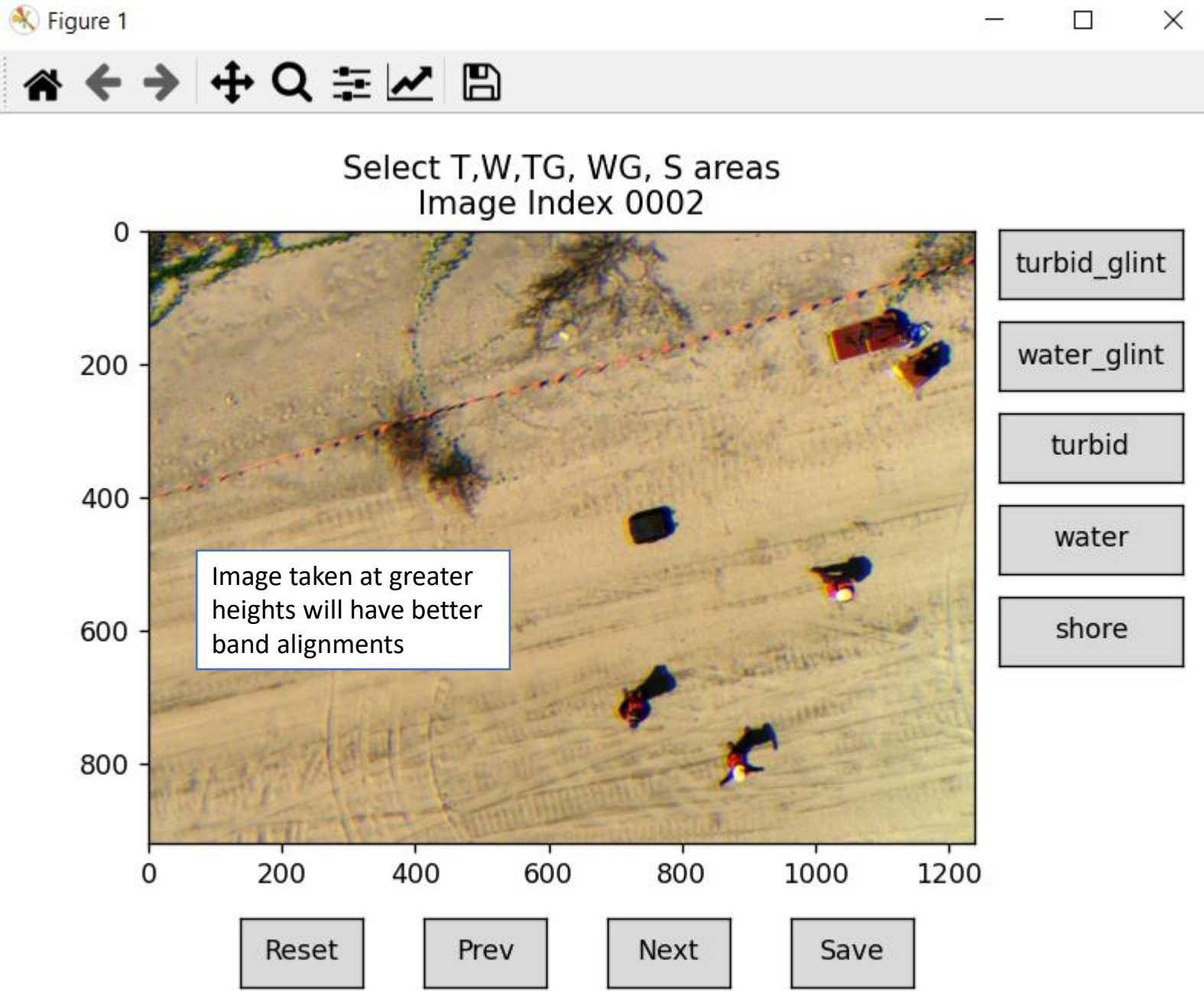
Reset

Prev

Next

Save

- The first image should show the calibration panel image
- Images have been band-aligned to produce the reflectance image. However, for images taken on the ground and below 35m AGL, the band images will not be aligned properly because rig relatives are used to perform the alignment, and the alignment will only work best for images taken > 35m AGL.
- In this case, do not draw boxes (bboxes) on images that are misaligned



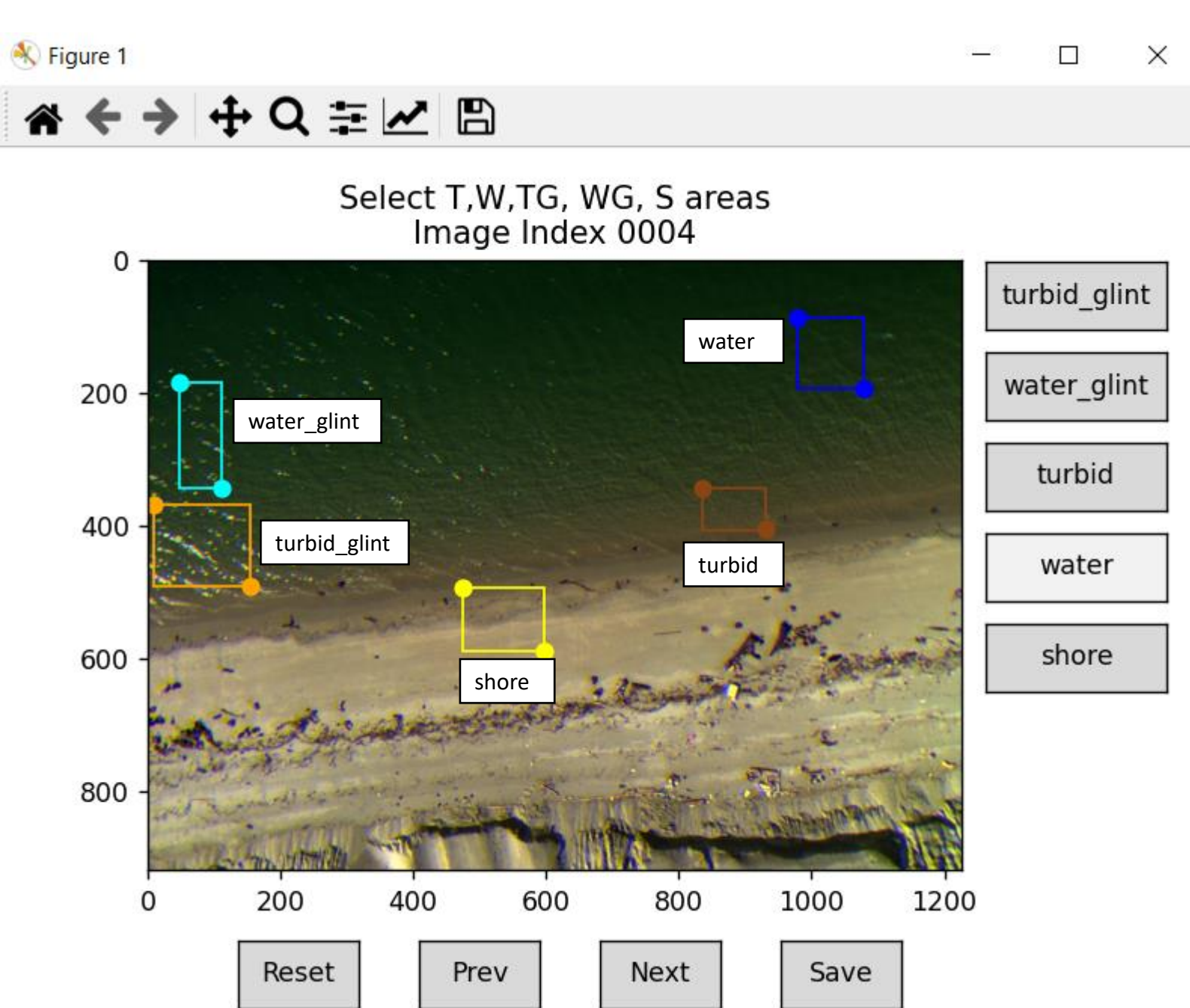
- When you click on the “Next” button, it will take a few seconds to load the next image. Be patient and wait.

### Introducing buttons

Buttons on the right helps in toggling the mode of selection (drawing bboxes)

- turbid\_glint: to identify regions with turbid waters AND glint
- water\_glint: to identify regions with no turbidity AND glint
- turbid: to identify regions with turbid waters with NO glint
- water: to identify regions with no turbid waters with NO glint
- shore: to identify regions of shoreline near the water
- Reset: clear all the bboxes drawn
- Prev: go to the previous image
- Next: go to the next image
- Save: save the current bboxes



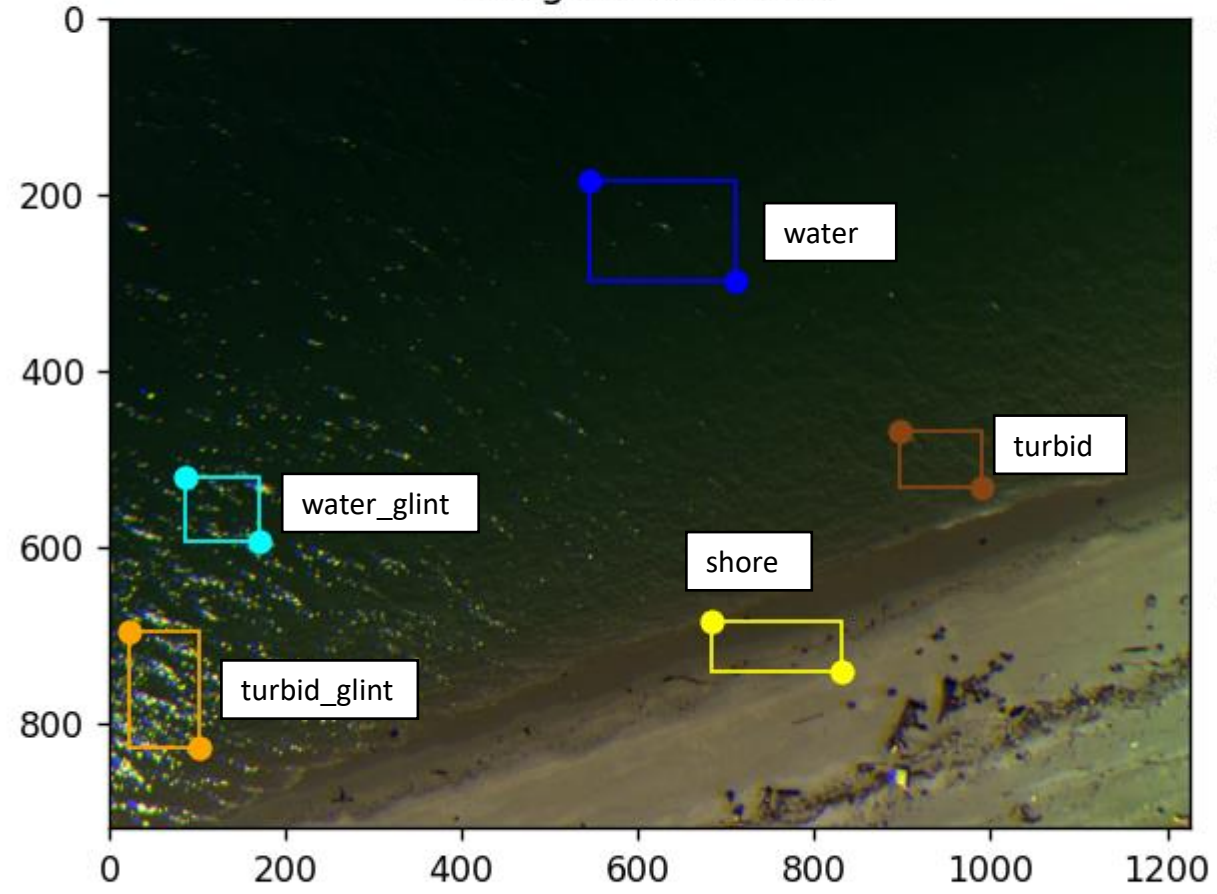


The colored boxes each correspond to the different categories

Here is an example on how to **label** the images:

- Water\_glint (cyan): select regions where you see glint (glitter effects on water surface) but no turbidity
- Turbid\_glint (orange): sometimes in shallow waters we can see the seabed, but they have the same effect as turbid regions. Select regions where you see “brownish” colours in water (either from shallow sea bed or turbid waters) where there is GLINT
- Shore (yellow): select shoreline close to water
- Turbid (brown): Select regions where you see “brownish” colours in water (either from shallow sea bed or turbid waters) with NO glint
- Water (blue): select regions with no turbidity and no glint

Select T,W,TG, WG, S areas  
Image Index 0005

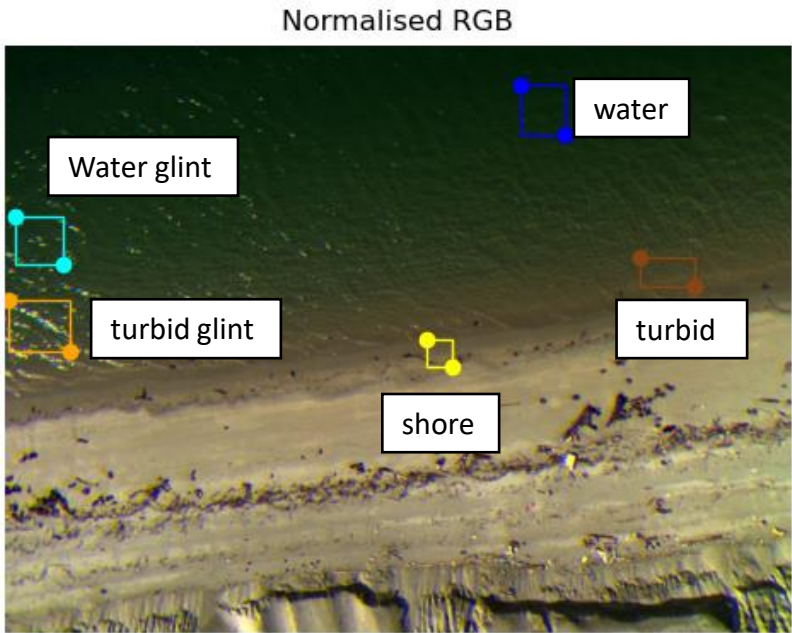
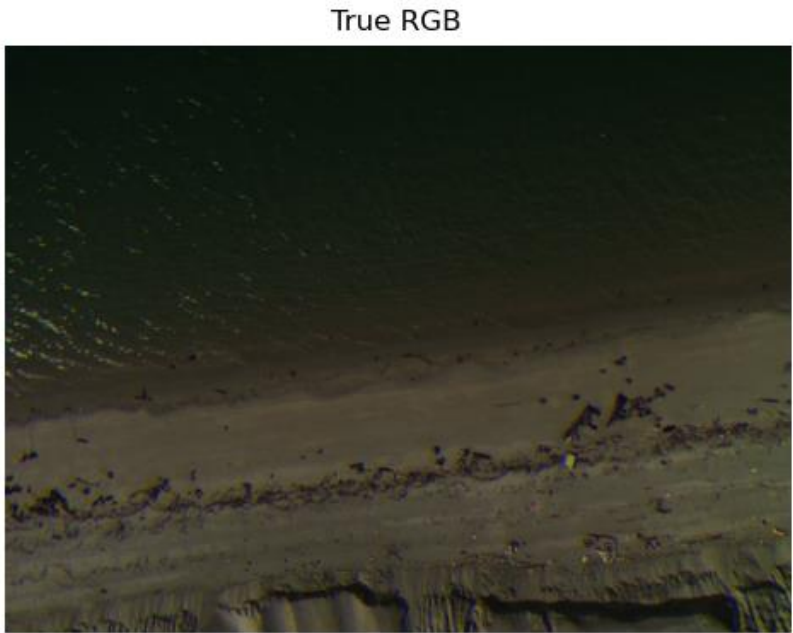


- turbid\_glint
- water\_glint
- turbid
- water
- shore

\*updated look\*

Left panel shows the TRUE rgb, while the right panel shows the normalised rgb image for better contrast. Labelling should be done on the normalised rgb (right panel image)

Select T,W,TG, WG, S areas  
Image Index 0004



- turbid\_glint
- water\_glint
- turbid
- water
- shore

IMG\_index

Type the image index (integer) into the textbox to jump immediately to the image you want to

Reset

Prev

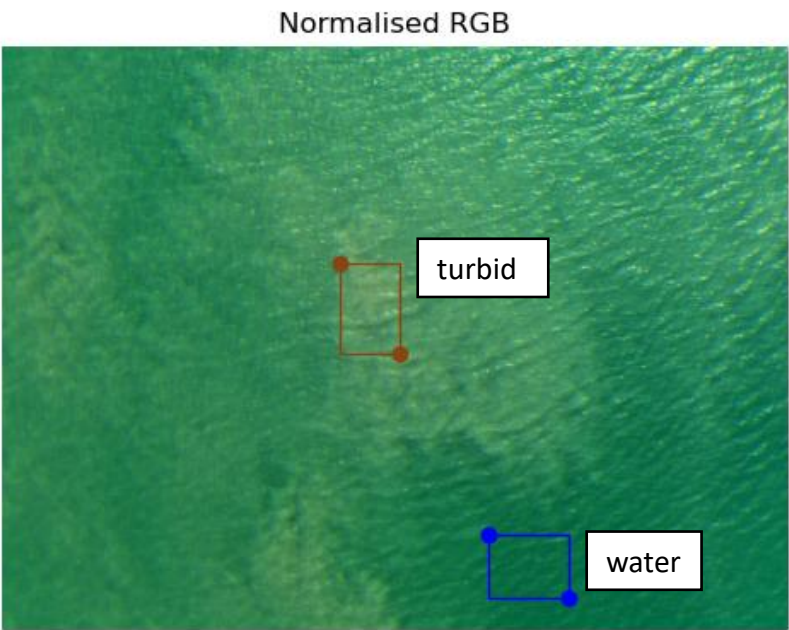
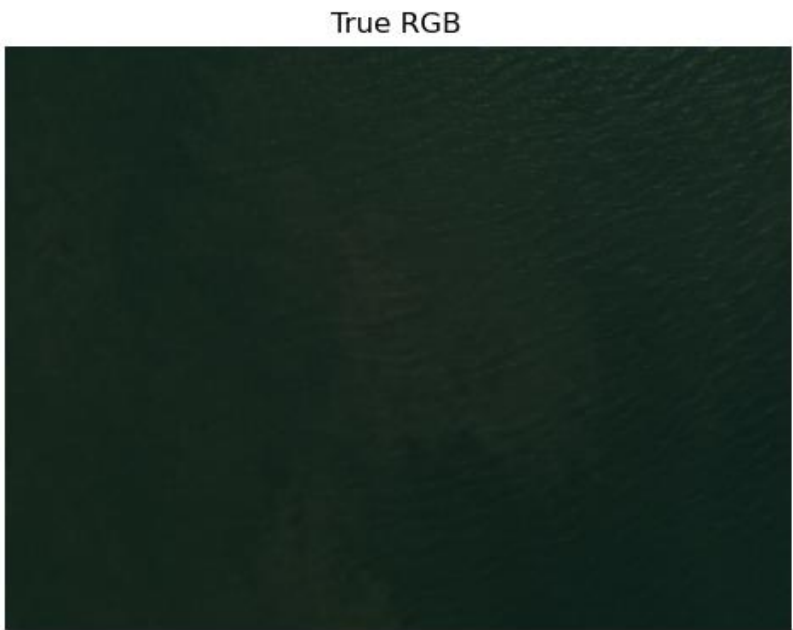
Next

Save

\*updated look\*

Left panel shows the TRUE rgb, while the right panel shows the normalised rgb image for better contrast. Labelling should be done on the normalised rgb (right panel image)

Select T,W,TG, WG, S areas  
Image Index 0402



turbid\_glint

water\_glint

turbid

water

shore

IMG\_index

0

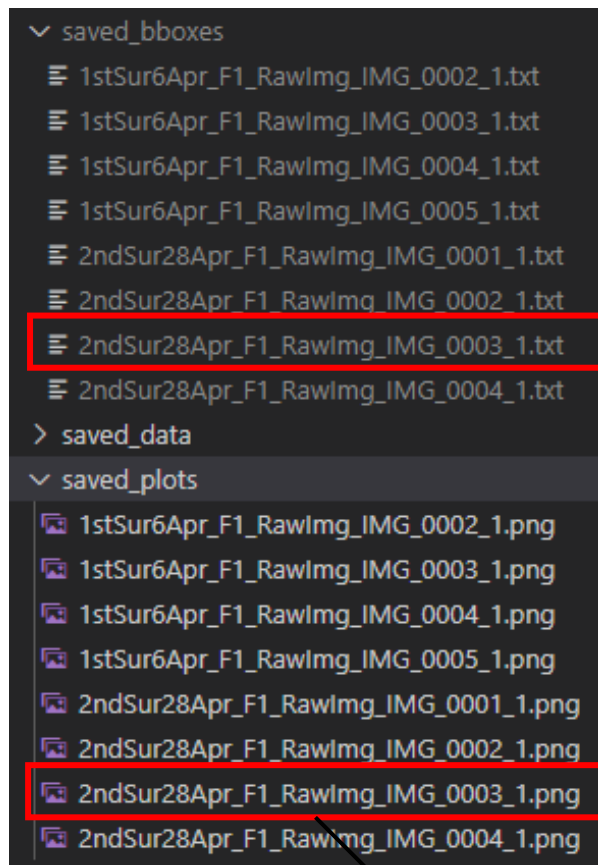
Reset

Prev

Next

Save





```
10thSur24Aug_F1_RawImg_IMG_0004_1 - Notepad
File Edit Format View Help
{"F:/surveys_10band/10thSur24Aug/F1/RawImg\
\IMG_0004_1.tif": {"turbid_glint": [[8, 369],
[153, 491]], "water_glint": [[48, 184], [110,
343]], "turbid": [[834, 343], [930, 406]],
"water": [[979, 88], [1078, 193]], "shore":
[[473, 494], [595, 587]]}}
```



Double check that the image index, parent folder, survey name are consistent with the saved\_bboxes and saved\_plots

## Output

- Outputs (saved\_bboxes and saved\_plots folder) are automatically created and files are saved therein once the “Next” button is clicked
- Click on “Save” button if you want to overwrite certain bboxes in the previous images
- The saved files will be in a text file that contains all the bboxes drawn
- Not all images have all the 5 categories, it is OK to not label the glint/turbid regions if these categories are not found in the images