

## Free Boater's GPS App for Your Android Phone

### Marine Ways

Download from Play Store and install

This is a great and free boating app for Android phones. It will provide current latitude and longitude coordinates , speed over ground (SOG), heading (HDG), and bearing (BRG). It uses NOAA charts and provides several different map overlays and a variety of types of weather information. It can also show other boats and obstructions depending on the screen you are using. One can enter routes on the app if desired.

**I like it and use it.**

**Doug**

## Instructions for OpenCPN Free Marine Navigation Program

### Chartplotter and GPS Navigation Software

Chart Plotter and Navigational software program for use underway or as a planning tool.

- Go to <https://opencpn.org/>
- Click "Quick Start Guide" for set-up guides
- Click "Download Version XXX" for your particular device of choice
- Follow prompts and download
- There are lots of How-to Manuals and videos available on-line
- Upon installation, you will be asked for your initial configuration options
- When installing the Opencpn program, you will be prompted to include a chart file if you already have one. Choose the file you want (either complete 11 Coast Guard District (11 CGD) list, Calif list, or the selected list you made). You can always change it in the program if you want.
- ENC charts may be downloaded from within the program as follows:
- Select the gear icon (options) in the upper left of the screen. Click on charts, chartdownloader, and add catalog
- From the catalog, click on USA NOAA..., ENC by state or CG Districts (local is 11 CGD)
- A local path will be entered into the program and will also enter the directory into your computer. Click on update and you will be able to select the desired charts (see below)

- Once you have selected your charts, click download selected charts, apply, and ok.
- As you open the directory sent to your computer (in this example 11CGD) you will be able to see all of the ENC chart numbers for the district. You should now be able to move the desired charts from below into a separate file you might designate as CA Delta ENC, generally Stockton to San Francisco. You can then add this directory to the OpenCPN program. If you leave the 11CGD directory in the program you can always switch from one to another if you are navigating further than the Delta area.
- Once the program has been installed and is open, go to the California area and zoom in on the area and the charts will show up.
- Now go play with all the things the program does.

**A set up video is available under the videos tab on the website**

Have fun,  
Doug

The following chart numbers reflect ENC charts from Stockton to San Francisco for those who do not want the entire 11 CGD charts.

US4CA46M	Sacramento River from Andrus Island to the city of Sacramento,
US5CA9AM	Sacramento and San Joaquin Rivers from above Sacramento to the Stockton Deepwater Channel
US5CA12M	Approaches to San Francisco Bay
US5CA13M	San Francisco Bay: Candlestick Point to Angel Island
US5CA21M	San Francisco – Oakland Bay Bridge
US5CA32M	Mare Island Strait
US5CA41M	Monterey Bay and its harbor
US5CA42M	Mare Island Strait and a portion of the Carquinez Strait
US5CA43M	San Joaquin River, California, in the vicinity of Pittsburg and Antioch
US5CA44M	San Joaquin River Stockton Deep Water Channel Antioch to Medford Island
US5CA45M	Suisun Bay and its approaches near Martinez
US5CA46M	Sacramento and San Joaquin Rivers 1:40,000
US5CA47M	Sacramento River
US5CA48M	San Joaquin River Medford Island to Stockton 1:20,000
US5CA49M	Sacramento River from Sacramento to Fourmile Bend
US5OAKGF	Oakland Harbor
US5OAKGG	Oakland Harbor and surrounding areas in the San Bay
US5OAKGH	Oakland Harbor
US5OAKHG	Oakland Harbor Entrance
US5OAKHH	Oakland Harbor,

US5OAKIG    Oakland Harbor within the San Francisco Bay  
US5OAKIH    Oakland Harbor and its approaches  
US5OAKII    Oakland Harbor Entrance