



# Bareboat Necessities vs OpenPlotter

mgrouch

Version 2025-05-07, Bareboat Necessities vs OpenPlotter

| Feature                        | BBN                                                                              | OpenPlotter                                          |
|--------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------|
| Open Source                    | yes                                                                              | yes                                                  |
| Free                           | yes                                                                              | yes                                                  |
| Touchscreen Support            | advanced (OpenCPN, two finger zoom, long touch right click, three finger scroll) | basic                                                |
| On-screen keyboard             | advanced                                                                         | basic                                                |
| On-screen App Launcher         | yes                                                                              | -                                                    |
| Touchscreen usability          | higher                                                                           | lower                                                |
| Headless mode                  | available with the same OS image with simple config changes                      | available by downloading separate image              |
| Touchscreen UI                 | requires keyboard and mouse during set up                                        | requires keyboard and mouse during regular operation |
| SignalK                        | yes                                                                              | yes (plugins are not pre-installed)                  |
| PyPilot                        | yes                                                                              | yes (not pre-configured)                             |
| AvNav                          | yes                                                                              | adhoc install                                        |
| QtVlm                          | adhoc install                                                                    | -                                                    |
| Chart Formats                  | All available opensource plugins pre-installed                                   | adhoc install                                        |
| GPSd                           | yes, pre-configured                                                              | -                                                    |
| KPlex                          | yes, bundled, disabled on start                                                  | adhoc install                                        |
| OpenCPN                        | yes                                                                              | yes (plugins are not pre-installed)                  |
| O-Charts Plugins               | yes, bundled                                                                     | adhoc install                                        |
| OpenCPN Weather Routing Plugin | yes, bundled                                                                     | adhoc install                                        |
| OpenCPN Polar Plugin           | yes, bundled                                                                     | adhoc install                                        |
| OpenCPN Tides/Currents         | yes                                                                              | yes                                                  |
| Weather GRIB                   | yes                                                                              | yes                                                  |
| Radar Support                  | yes, pre-installed OpenCPN plugin                                                | adhoc                                                |

| Feature                        | BBN                                                                                                   | OpenPlotter                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| WiFi hotspot                   | yes, pre-configured                                                                                   | needs setup                                                   |
| Firewall                       | yes                                                                                                   | -                                                             |
| NMEA 0183                      | yes, mostly preconfigured                                                                             | yes, requires configuration                                   |
| NMEA 2000, Can                 | bundled, requires configuration                                                                       | adhoc install, requires configuration                         |
| SeaTalk1                       | bundled, requires configuration                                                                       | adhoc install, requires configuration                         |
| NavTex                         | yes                                                                                                   | -                                                             |
| Radio Decoders                 | Inmarsat STD-C, NavTex, WeatherFax, WinLink, NOAA Satellite Weather, AIS - bundled                    | WeatherFax, NOAA Satellite Weather, AIS via adhoc install     |
| SDR/Ham support                | extensive                                                                                             | basic                                                         |
| AirMail                        | via wine                                                                                              | -                                                             |
| GIS                            | SAS.Planet via wine, imgkap                                                                           | -                                                             |
| Autopilots Control             | AutoHelm(?), pyPilot, NMEA 2000                                                                       | NMEA 2000 (adhoc), pyPilot                                    |
| i2c                            | on by default, IMUs are auto-detected                                                                 | needs configuration                                           |
| Serial Ports                   | mostly autoconfigured via udev rules                                                                  | manual config via utility                                     |
| Hardware OpenGL acceleration   | on by default                                                                                         | needs setup                                                   |
| Support of opensource hardware | MCS marine server, SailorHat, Maiana AIS (most pre-installed and some adhoc)                          | require adhoc install                                         |
| Kernel                         | 64-bit by default                                                                                     | 32 or 64-bit                                                  |
| Hardware                       | Raspberry Pi4, Pi400, and CM4 and Pi3B+ (last two require /boot/config.txt changes before first boot) | More wide hardware support with additional DIY config changes |
| Backup Tools                   | plenty (timeshift, restic, rsync, rclone, rpi-clone, etc)                                             | some                                                          |
| SSD Imaging                    | yes, rpi-clone                                                                                        | DIY                                                           |
| Android Mirroring              | yes, scrcpy                                                                                           | -                                                             |
| Remote Desktop                 | yes, VNC client and server                                                                            | VNC adhoc install                                             |
| Web Browser                    | yes                                                                                                   | yes                                                           |

| Feature                                                                                                                  | BBN                                                                      | OpenPlotter                   |
|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|-------------------------------|
| FB, FB Messenger                                                                                                         | yes                                                                      | -                             |
| WhatsApp                                                                                                                 | yes                                                                      | -                             |
| Text-to-speech                                                                                                           | adhoc                                                                    | -                             |
| Offline Wikipedia                                                                                                        | kiwix                                                                    | -                             |
| YouTube                                                                                                                  | yes                                                                      | via browser                   |
| Cameras                                                                                                                  | yes, MotionEye, Cam                                                      | -                             |
| Augmented Reality                                                                                                        | Stellarium                                                               | -                             |
| Drones support                                                                                                           | yes, APM Planner 2                                                       | -                             |
| Media Library                                                                                                            | Jellyfin (adhoc), SAMBA share, Mopidy                                    | -                             |
| Playing Music                                                                                                            | yes, Mopidy, AirPlay (Shairplay), Spotify (raspotify), Bluetooth         | Bluetooth?                    |
| Windy, Lightning Map, Dock Finder, BoatSetter, CrewFinder, Sailing Education, Marine Traffic, Marine Life Identification | on-line                                                                  | DIY                           |
| Power Monitoring                                                                                                         | yes (SolarThing, HomeAssistant, etc)                                     | DIY                           |
| Victron support                                                                                                          | yes (via SignalK, HomeAssistant, NodeRed, Venus Web UI)                  | DIY                           |
| Marine Publications                                                                                                      | ColReg, Check lists, Knots, Sailing Directions Enroute (adhoc)           | -                             |
| Automation                                                                                                               | NodeRed built-in, Mosquitto MQTT built-in, HomeAssistant/EspHome (adhoc) | Mosquitto MQTT, NodeRed adhoc |
| Data Analytics                                                                                                           | Grafana, Kapacitor, InfluxDB (built-in, disabled on start)               | Grafana, InfluxDB adhoc       |
| Release Frequency                                                                                                        | about monthly                                                            | 1-2 yearly                    |
| GitHub feedback: (stars, watchers, forks)                                                                                | more                                                                     | less                          |
| Distro Image Size                                                                                                        | 2.8 Gb                                                                   | 1.4 Gb                        |
| Download locations                                                                                                       | 2 Cloudsmith and GitHub                                                  | 1 Private Cloud               |

| Feature       | BBN                                                                        | OpenPlotter              |
|---------------|----------------------------------------------------------------------------|--------------------------|
| Documentation | fewer pictures, more complete,<br>more complete supported<br>hardware list | more pictures, more gaps |