User Guide for Android Marine Navigation App

General App Accessibility

Most features of the app are accessible via the menu/overflow button. With the chart opened you can access most features by pressing the menu button on your device or the overflow button at the bottom of the screen. The overflow button is the one with three dots stacked vertically. Included below are screenshots showing the menu button in hardware as well as software.

Hardware Menu Button

Software menu button

Menu button on HTC Desire:

On HTC desire you need to long press the app switching button on the right for menu.

"To enter the menu, you hold down on the fast app switching button. "

Left is BACK (step backwards through process)

centre is HOME (to return to the home screen)

right is RECENT APPS (2 functions)

      a. tap to view all recent apps you have opened,

      b- hold few seconds feel feedback release up pops the menu

Some of the most commonly used actions are: (*These functions are described in detail later*).

- New Route: To manually create a new route from scratch.
- Route Assistance: To follow a route that you have plotted or imported.
- Import Manager: This lets you import routes from existing sources in GPX/KML format. You canalso use this to access created routes or recorded tracks.
- Record: This starts track recording. It records the boat location every 3 seconds by default.
- Auto Follow: Continuously updates boat's location on the chart.

Finding Charts to Download

The app provides multiple way to download charts:
- Visual Search
- Chart Catalog
- Text Search

Visual Search

Using visual search you can draw a rectangle around your cruising area and bulk download all charts covering the area. It is accessible via:

Add Charts+ -> <Country> -> Visual Search

- On the basemap, scroll/zoom to your cruising area. Its better to zoom in close to your cruising area so that you get results for just that area. Adjust the size of the rectangle by holding and moving the orange dots.
- Then tap on "View Overlapping Charts"
- You can bulk download charts by tapping on the icon next to "View Overlapping Charts".

The following screenshot illustrates how one can download all charts covering Lake Mead via Visual Search. Lake Mead is covered by 6 charts. One can find them all via Visual search and bulk download them by tapping on download icon on top left.

Gps Nautical Charts

View On Map

Download All Charts
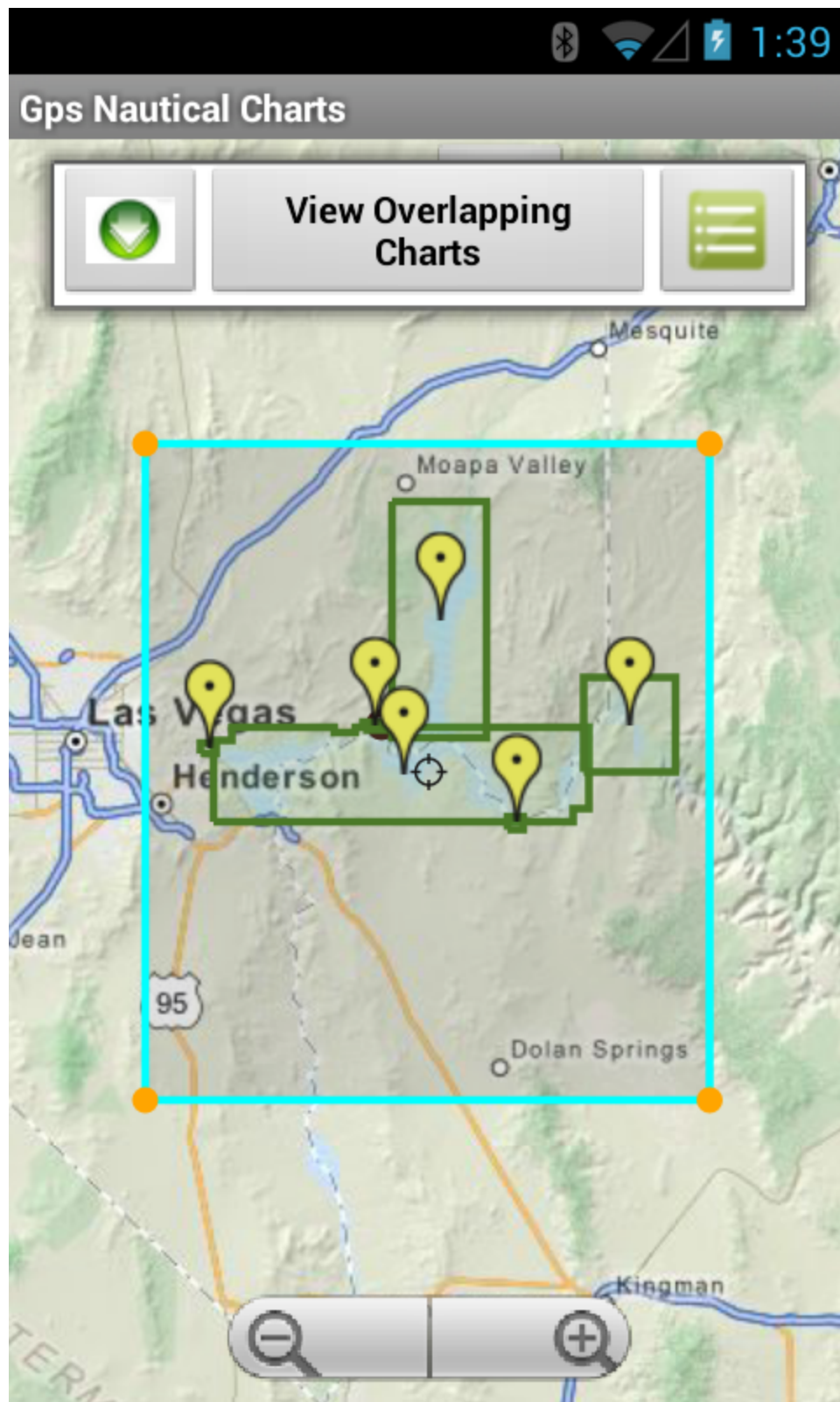
LAKE MEAD
1:48000, 0.03mi

GYPSUM BEDS
1:48000, 4.62mi

LAKE MEAD
1:48000, 9.26mi

SALT SPRING BAY
1:48000, 16.52mi

LAS VEGAS WASH
1:48000, 28.0mi

LAKE MEAD
1:48000, 32.98mi

Text Search

You can also use keywords such as the name of lake or reservoir or other text that identifies the area you are looking for.
Its accessible via Add Charts -> <Specific Country> -> Search Charts

For e.g. if you need coverage for Lake Texoma just typing in Lake Texoma should be sufficient.

Chart Catalog

We have also organized the charts covering a region into logical groups/folios that can be accessed under the Chart Catalog.

For e.g. there is a separate folio for all charts covering the 'Trent Severn Waterway', there is a another for 'Rideau Canal - Ottawa River'.

Gps Nautical Charts

Great lakes Canada and St. Lawrence river

Pacific Coast - Vancouver Island East & West - Haida Gwaii

Rideau Canal - Ottawa River

Trent-Severn Waterway

Lakes around Georgian Bay

Rainy Lake and Lake of the Woods

Lakes and Rivers in Manitoba and Saskatchewan
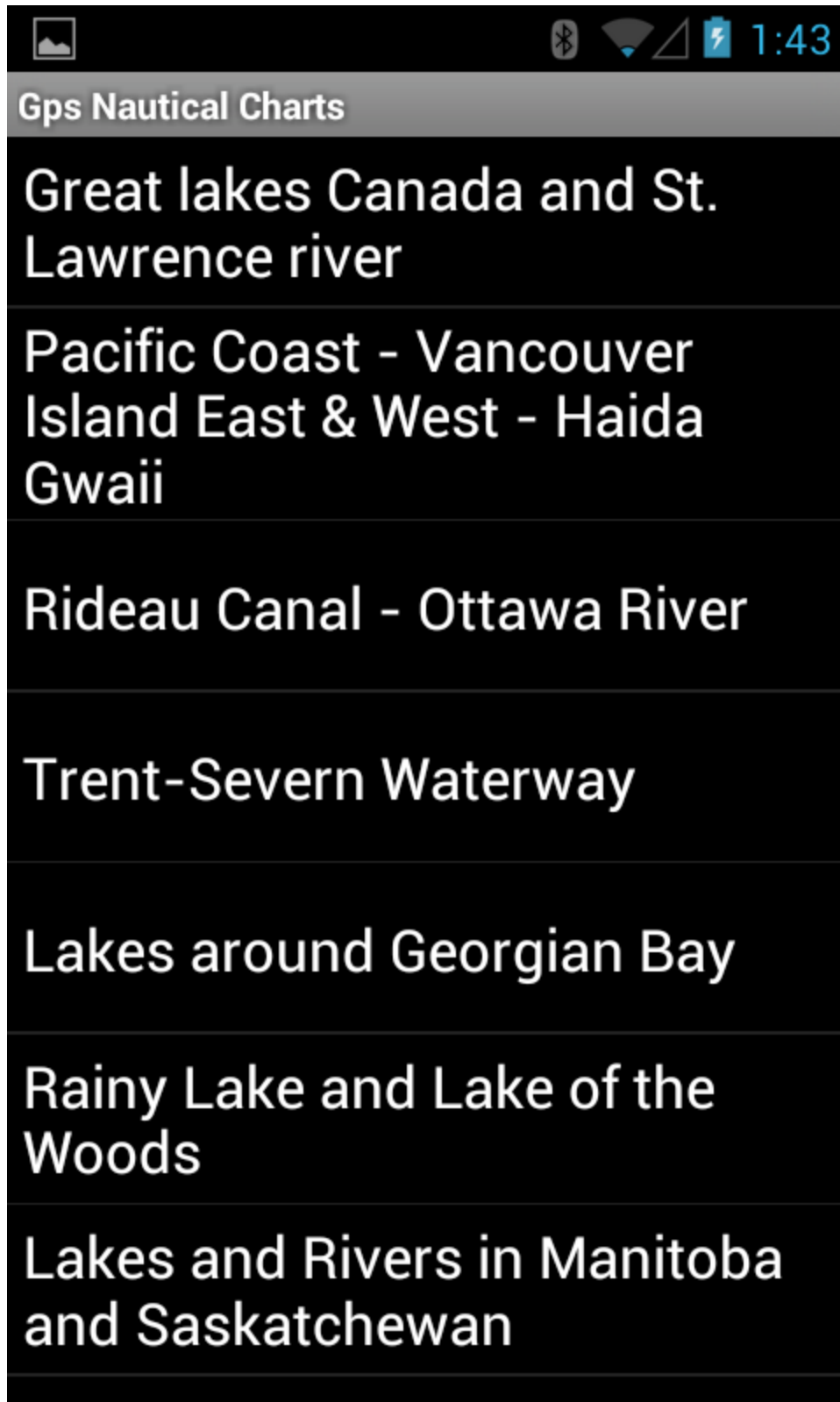
Route Manager

This section describes some of the capabilities of the route manager. It is organized into the following sub sections:

- Plotting routes manually
- Exporting Routes/Tracks (Share raw GPX files)
- Import Routes (from GPX/KML files)
- Enter waypoints manually
- FAQs regarding route manager

Plotting Routes Manually

1.) Open the chart, press menu/overflow button and select "New Route".
2.) This would show show route editing controls at the top. The route editing control is initially in pan mode.
Tapping on the center button(it looks like two directed route/arrow edges) would switch it to route creation
mode.
Tap on "New Point" to drop a route point that you would follow in succession.
 If you want to create a point that is not exactly on route but a navigation aid, use "DropMarker/Pin" (second button from left).

3.) When you are done creating the route, tap on "Save Button" to save route.

The following screenshot shows Route Editing in action:

Hand Icon: Tap on it to switch to pan mode.

Pin/Marker Icon: Tap on it to drop a point anywhere (not necessarily on the route).
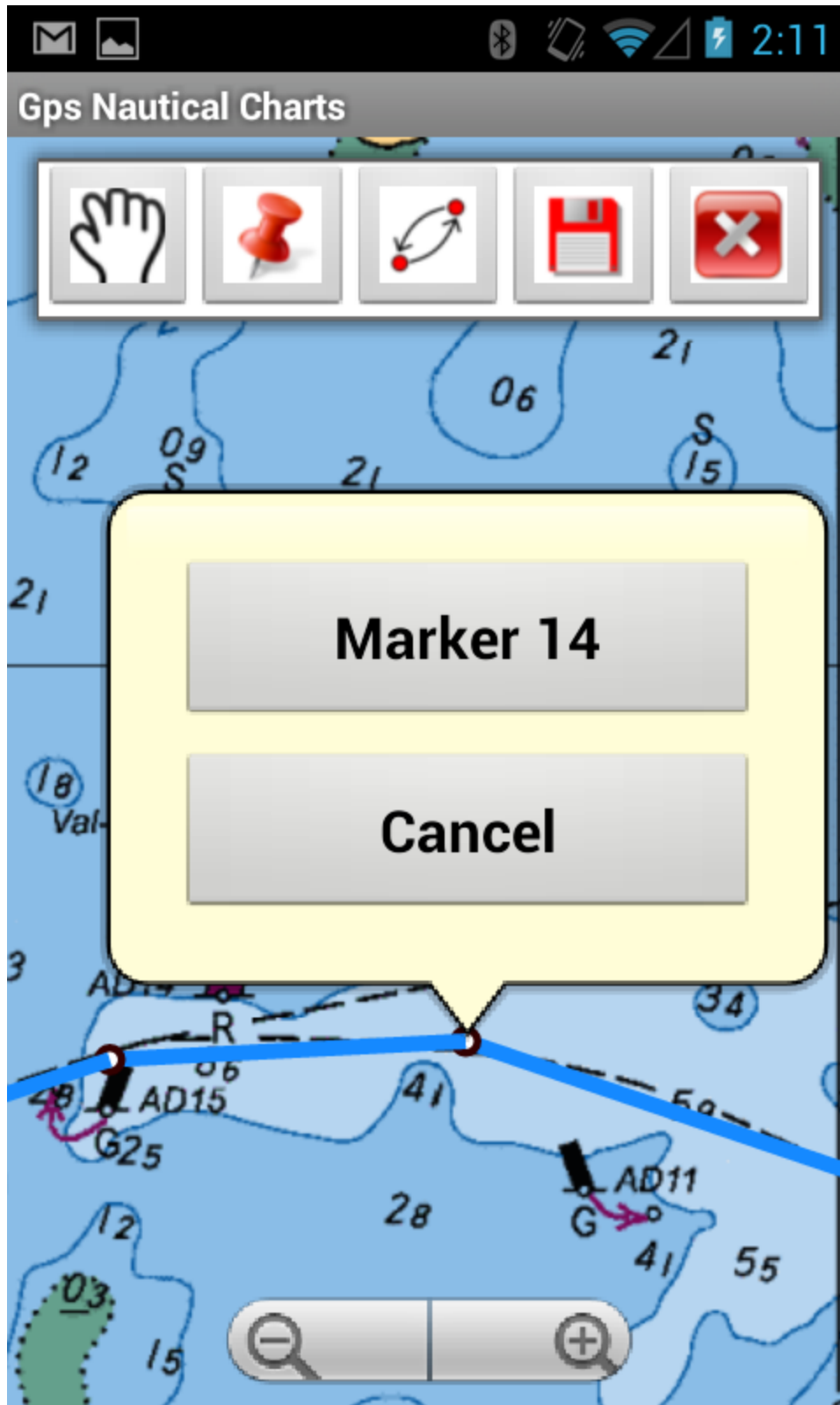
Route Icon: Tap on it to switch to Route mode. In this mode you will see two more buttons on the screen.

Save/Disk Icon: Tap on it to save the route.

Cancel/End Icon: Tap on it to end your route editing session.

Exporting Routes

To export routes, please follow the following steps:

● With the chart opened, press menu/overflow button.
● Select Route Manager -> Routes
● Tap on the specific routes you wish to export. A check next to the route means its selected for Export.
● Press menu/overflow button and select "Export"

This will export all the selected tracks to your sdcard. All exported routes and tracks are saved under a folder called "TrkExports". This folder is created under the root folder of your sdcard.

Importing Routes

You can import routes in GPX or KML format from files sent to you via email attachment. If you know the URL of a file, the app can download the file and import it as well.

Importing routes from SDCard/Device Storage

You can import routes from GPX and KML files from SDCard/device storage:
- Select Route Manager -> Import GPX/KML
- Select Import From File
- Select the specific file you wish to import.

Select File

Sun_Aug_19_16_240.gpx.gz

ss0.gpx.gz

regular_route_gp0.gpx.gz

regular_route_gp1.gpx.gz

Sample_Closed_Li2.gpx.gz
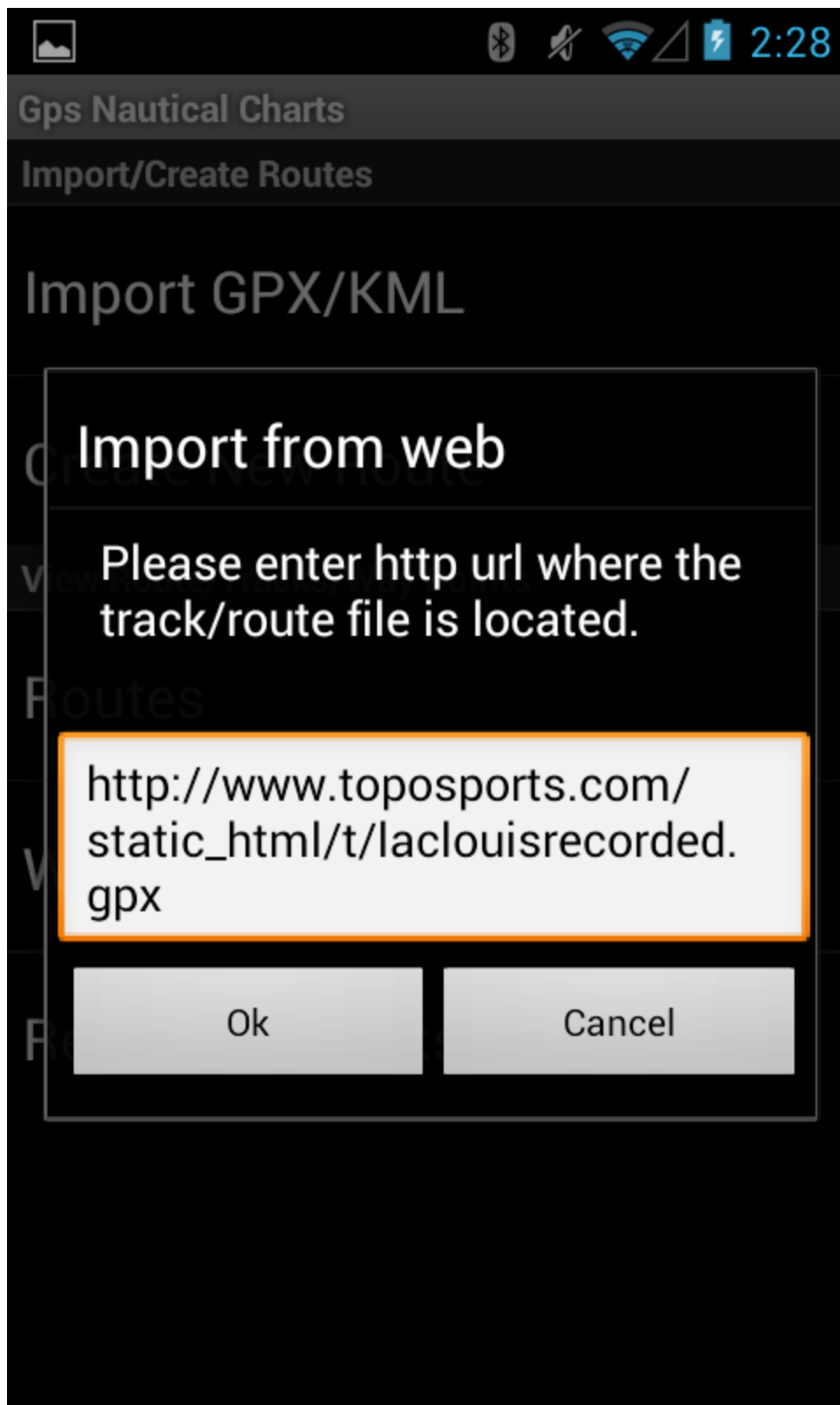
cfonwaypoints_ed3.g

Cancel

Importing routes from a website

If you know the http URL of a route in GPX/KML format, you can import it directly in the app using the following:

- Select Route Manager -> Import GPX/KML
- Enter the URL of GPX/KML file

The app will automatically download the file and import it in the app.

This option is useful if you want to import track available on a third party website.
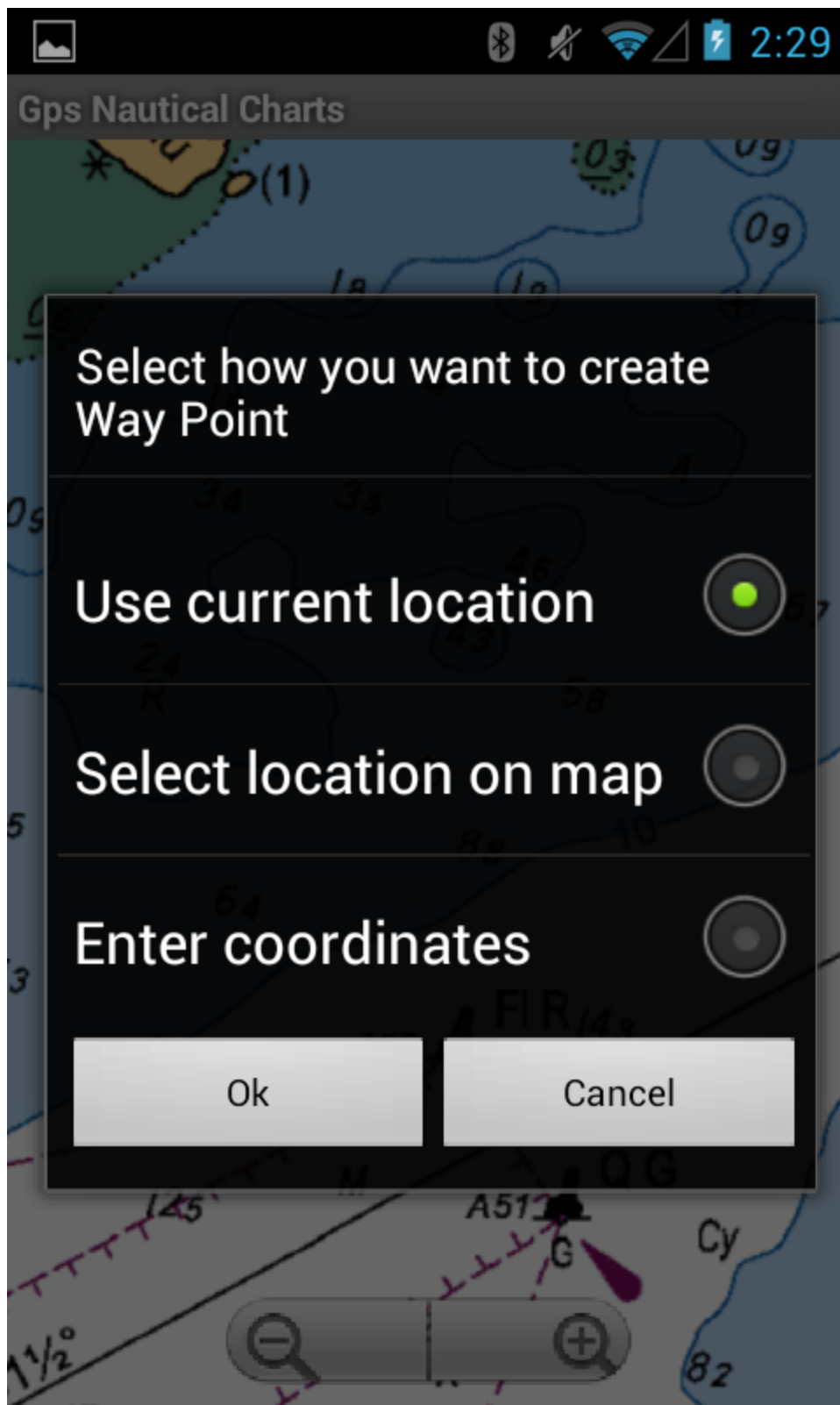
Entering Way Points

The app allows waypoints to be created in multiple ways. Way Points entered this way are stored under "Default Way Points".

- Using Current Location via GPS
- Manually Enter Lat Lon
- Way Point under Cursor/Cross Hairs.

To create a waypoint this way, please use the following steps:

- With the chart opened, press menu/overflow button.
- Tap on New Waypoint

Way Point using Current Location

This creates a way point at the current location determined using device's GPS. This can be used to model scenarios such as "Lucky Fishing Spot" or "MOB marker" etc.

Way Point By Manually Entering Lat Lon

If you know the latitude longitude of a point, you can enter the coordinates manually to create a way point. Please make sure that the coordinate type is set to the format you are going to enter the coordinates in.

For e.g. if your coordiantes are in degree minute second format, please make sure that this is what the coordiante type is set to under Options. The app changes the UI depending on the coordinate type. To set coordinate type to your desired format, tap on Options -> Select Coordinate type and tap on "Save".

Way Point by marking a location on chart

This lets you create a waypoint by manually tapping on a point on the chart. Typically you would use this option as a bookmark for where you were looking at when browsing the chart.

Route Manager FAQ

Q1. I saved a route. How do I edit it later?
A1. Please use the following steps to edit a route:
- With the chart opened, press menu/overflow button and select Route Manager
- Select Routes -> Specific Route

Tap on "Edit Route" at the bottom.

Q2. How do I change the name of a point on the route or How do I delete a point on the route?
A2. By default all created route points have names such as "Marker 1", "Marker 2" and so on. To change the name of a route point:
- Tap on the point,
- Tap on button that shows point name "Marker

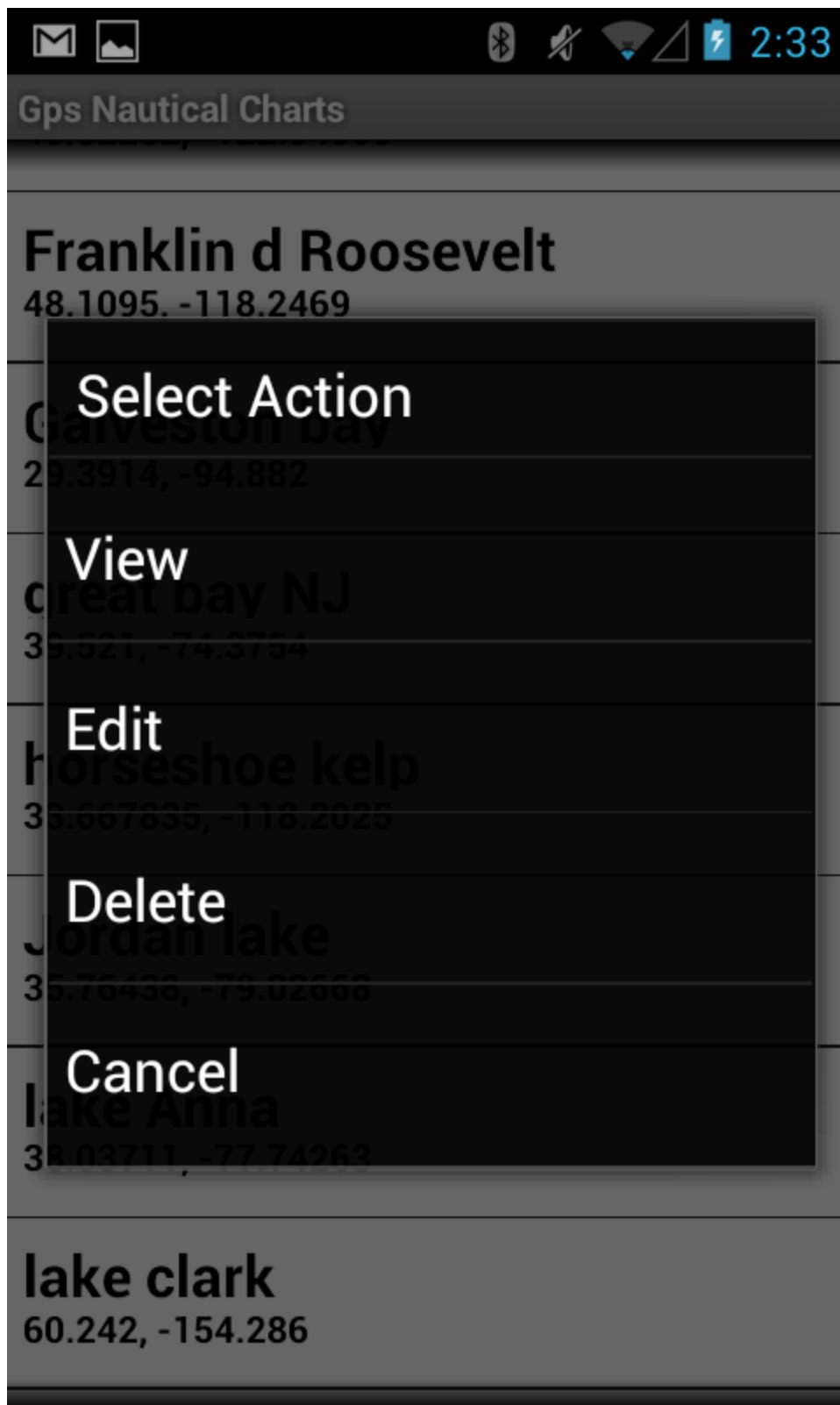This would give you option to change the name or delete the point.

Q3. How do I change the name of a default way point or How do I delete a default way point?

A3.

- With the chart opened, press menu/overflow button and select "View Way Points"
- *Long touch* the point you wish to edit or delete.

Franklin d Roosevelt
48.1095. -118.2469

Select Action

View

Edit

Delete

Cancel

lake clark
60.242, -154.286

Auto Follow Mode

This is the simplest form of route assistance. Auto Follow mode (aka the moving map) is accessible by tapping on the "Auto Follow" item from the menu/overflow button.

When turned on it does the following:

- Continuously update device's location on the chart.
  - This is the standard moving map that shows device's position on the chart
- Real time track overlay of the course you have sailed so far.
  - This shows the course you have already sailed in dark red/brown color. This gives you an idea of how you got to your current location.
- Direction arrow showing a boat's location if current course is maintained
  - This is helpful to avoid any sailing hazards esp if you are sailing for fun and not following a pre-defined route.

Please note that the last two features listed above are in an update that has not yet been approved for some sales channels.

The screenshot below shows these in action.
- The yellow icon at the center is boat's current location.
- Dark brown line is the course you've taken so far.
- The purple arrow shows where you will get if you stay on the current course.

Route Assistance With Voice Prompts
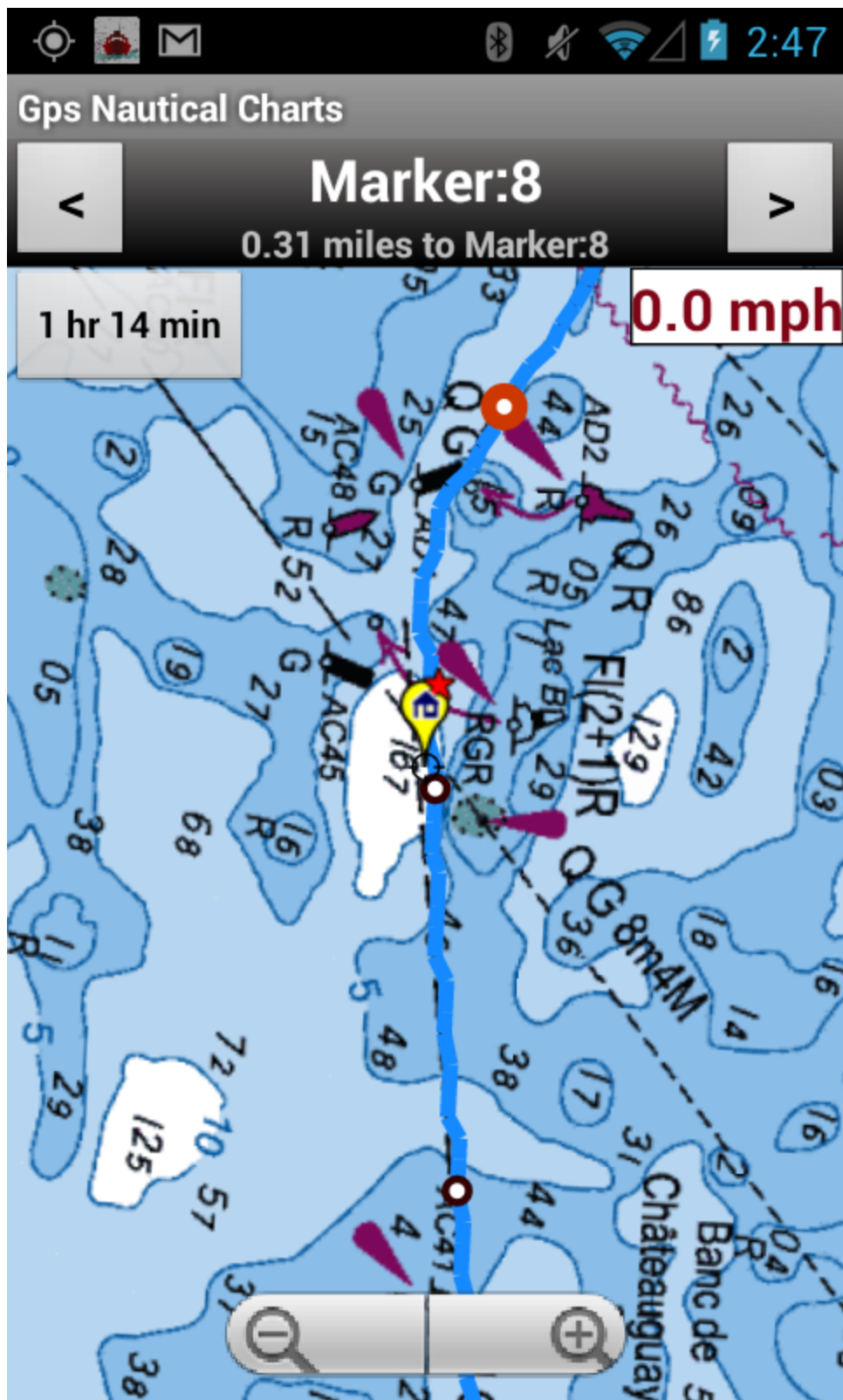
What is route assistance?

If you are following a specific route, please use Route Asssistance. A route is essentially a collection of route points that one follows in succession to get from point 'A' to point 'B'. The app automatically figures out what is the next waypoint in the route using current location and heading.

With route assistance enabled for a route, the app takes care of the following:

- Continuous distance and ETA updates
    - The app continuously updates distance to the next waypoint on the path.
    - The top left shows ETA for the entire trip. This is a toggle button. Tappin on this button would toggle between estimated absolute time for the trip(e.g 2 hr 15 minutes) and the arrival time (e.g. 2:15 PM).
- Voice alerts when going off route
    - The app keeps track of cross track error and issues voice alerts if you go off route

- Voice alerts for taking wrong course
  - The app makes sure that you are following the route correctly and issues alerts if you take the wrong direction/course. For e.g. if instead of going from point A to point B, you sail backwards from B to A, the app would detect it.
- Approaching alerts
  - The app also issues alerts when approaching an intermediate way point. This is just a confirmation that you are following the route correctly.

The screenshot below shows route assistance in action.

How to turn on Route Assistance?

Before you turn on route assistance, you must either plot a route or import a route. Please see the section "Route Manager" for details on how to do this.

Once you have a route you wish to follow, please use the following steps to turn it on:

- With the chart opened select "Route Assistance" from the menu/overflow button. This would show the list of all routes on the device.
- Tap on the route your wish to follow. This would put a checkmark against it
- Tap on Follow Route.
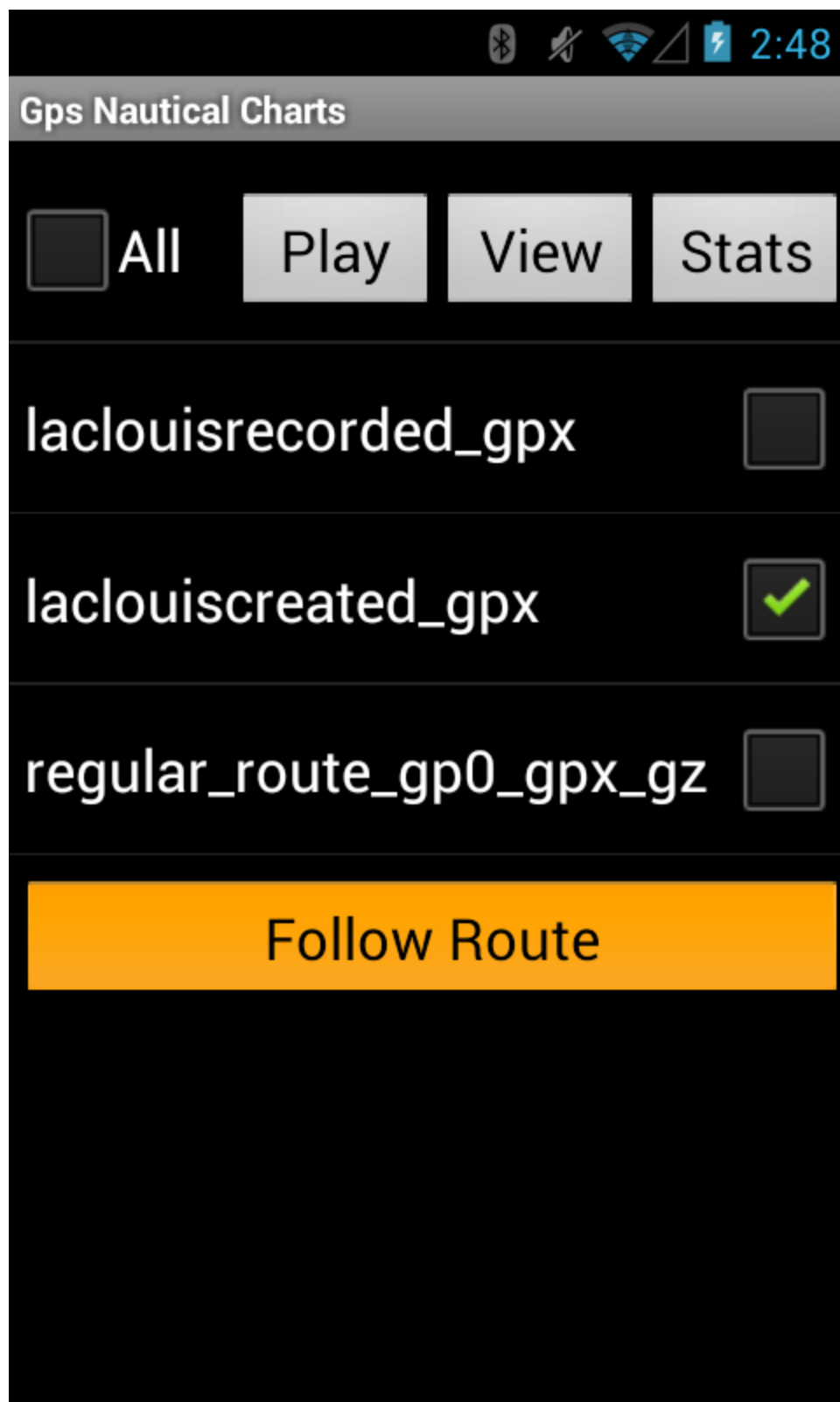
Track Recording

With track recording turned on, the app stores the followed track. The track is saved on the device and can be shared with other as GPX files. (Please see the section on Exporting Routes in Route Manager).

To turn on track recording please do the following:

- With the chart opened press "Rec" on the menu bar below.
- You would first see a notification called "Scan" . It will turn to "Rec" when the device locks to GPS satellites.

Options/Settings

This section describes various setting/options available in the app.:

- Select Metric:
  - The default value is km (Kilo Metres). This decides in what units track stats, distance to next way point, speed etc. are shown.
- Enable Digital Zoom
  - The default is on. It adds an additional layer of zoom.
- Disable Course Up
  - The default is off. When turned on, this would disable the chart course up mode used by Auto Follow.
- Enable Voice Prompts
  - The default is on. When turned off, the app would not give voice alerts in route assistance mode.
- Display Lat Lon Bar
  - The default is off. When turned on, the app would show latitude, longitude under the map cross hairs.
- Disable Realtime Overlay
  - The default is off. When turned on, the app would not overlay the course taken so far on the chart.
- Bearing to Center
  - The default is on. When turned off, distance bearing tool switches to Bearing from Center.
- Show Vertical
  - The default is off. When turned on, the app would show vertical taken for recorded tracks in Stats.
- Coordinates Type
  - The default is degrees. You can switch to Degree -Minute and Degree-Minute-Second. This setting decides how the coordinates are shown in lat lon bar and what input fields are shown when creating a new waypoint by manually entering coordinates.

Tide and Currents

The app supports tide and current predictions for some regions.

You can do either of the following:

- View stations as a list.
- View stations as overlay a base map.
- Add a station to a favorite list for quick access.

Tide and Currents FAQ

Q. What is the unit for tidal height predictions?
A. All tidal heights are shown in units set under Options. By default this is meters. The predictions units are shown at the bottom of the screen. It will automatically change to ft if you change the metric to miles or NM under Options.
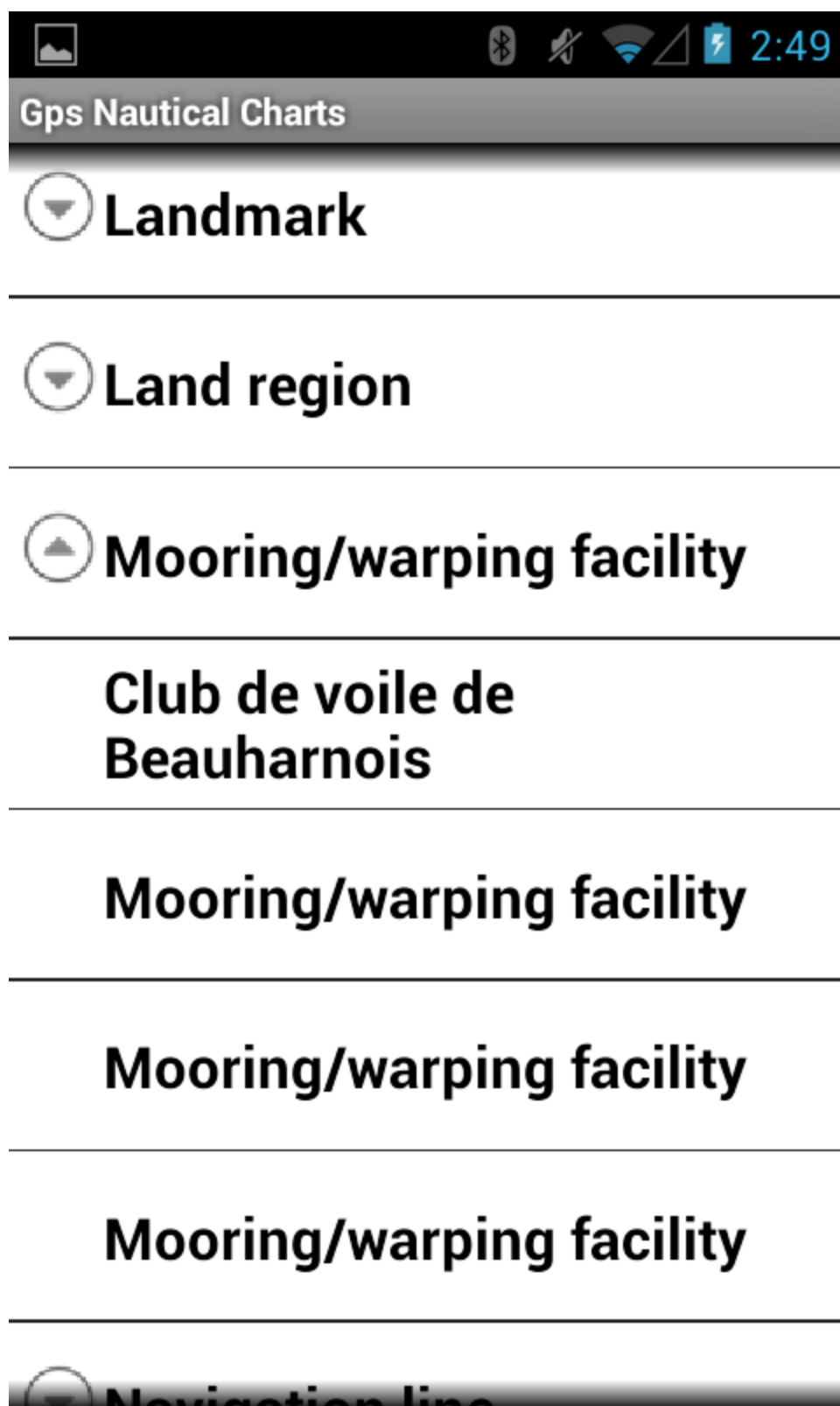
Q. How do I add a station to favorite list?
A. When looking at predictions for a station press menu/overflow button and select "Favorite".

Other actions on Action Bar

View POIs

The app includes a list of POIs organized by categories. The list of POIs is accessible by tapping on View POIs on the action bar. This includes POIs for categories such as "Wrecks", "Obstructions", "Mooring/Warping facility", "Harbour Facility", "Recommended Track Line", "Boat ramps", "Fish Attractors", "Fish Atlas", "Fish Stocking"

Gps Nautical Charts

⊙ **Landmark**

⊙ **Land region**

⊙ **Mooring/warping facility**

Club de voile de
Beauharnois

Mooring/warping facility

Mooring/warping facility

Mooring/warping facility

⊙ Navigation line

Search POIs

This lets you do a text search for POIs on the current chart that you are loooking at.
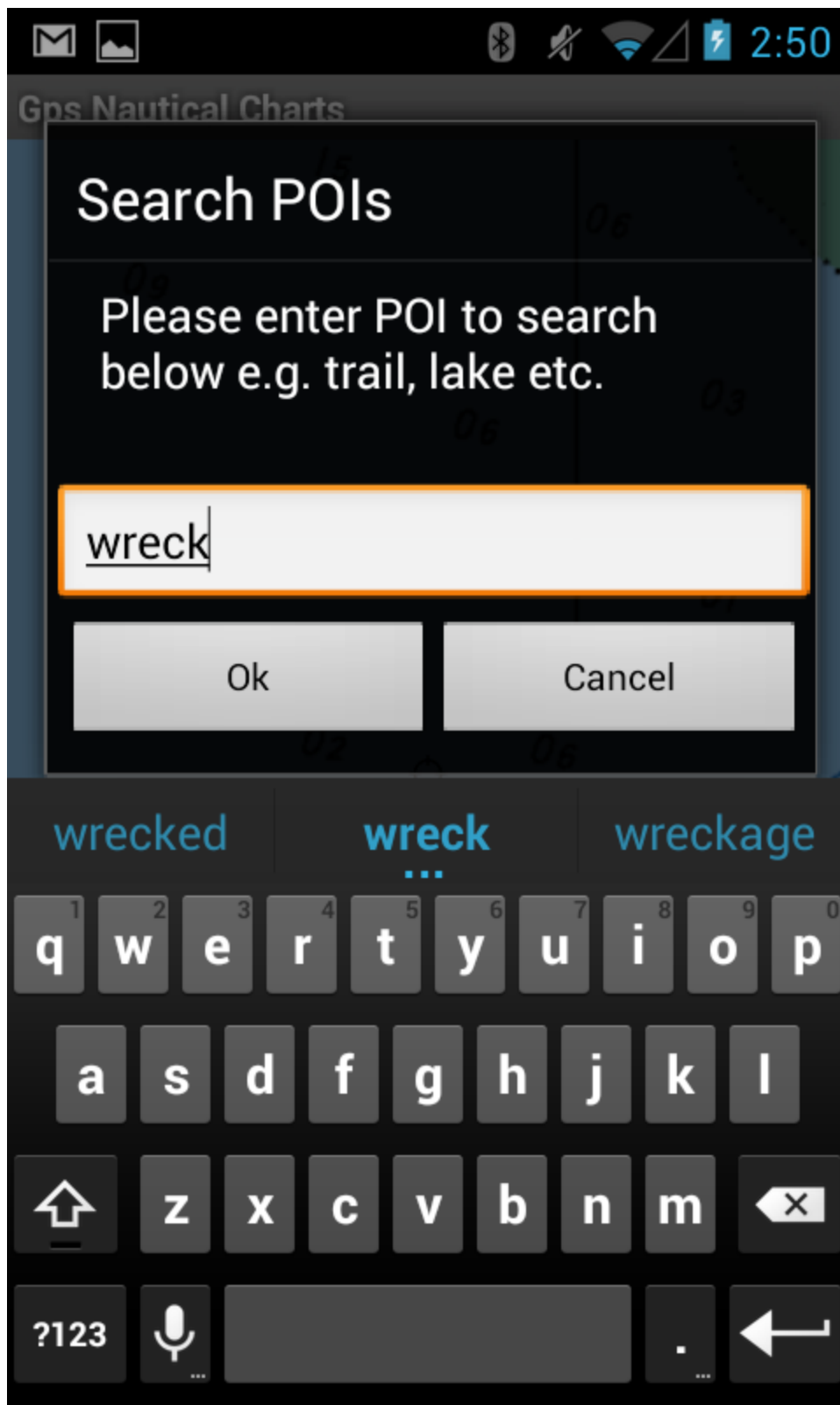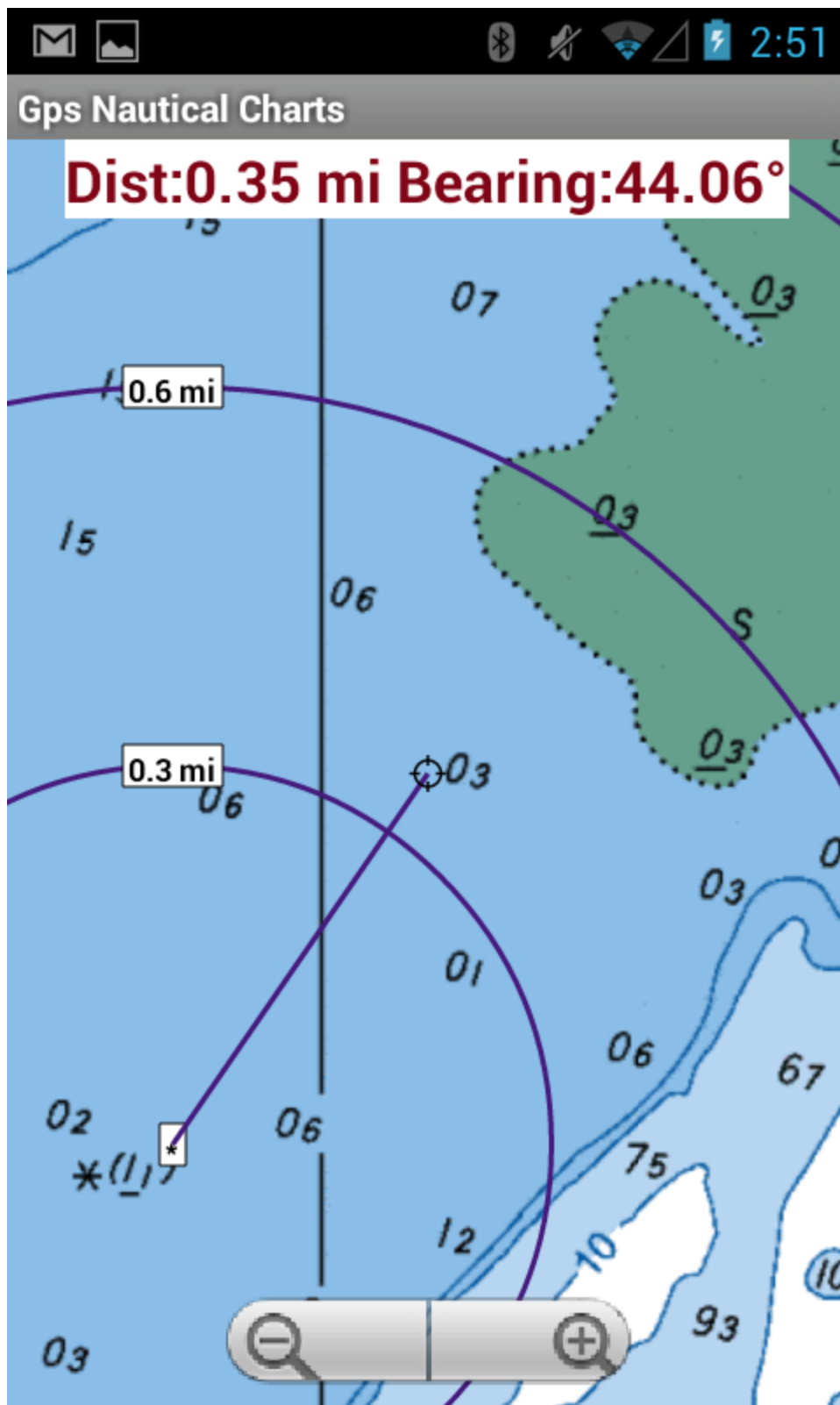
Clear

This clears any layers that have been overlaid on the chart. For e.g. if you are viewing POIs on the chart and no longer wish to view them, please tap on"Clear" to clear this layer.

Dist/Bearing

This launches the distance bearing tool. You can use it to measure distance and bearing between any two points on the map.
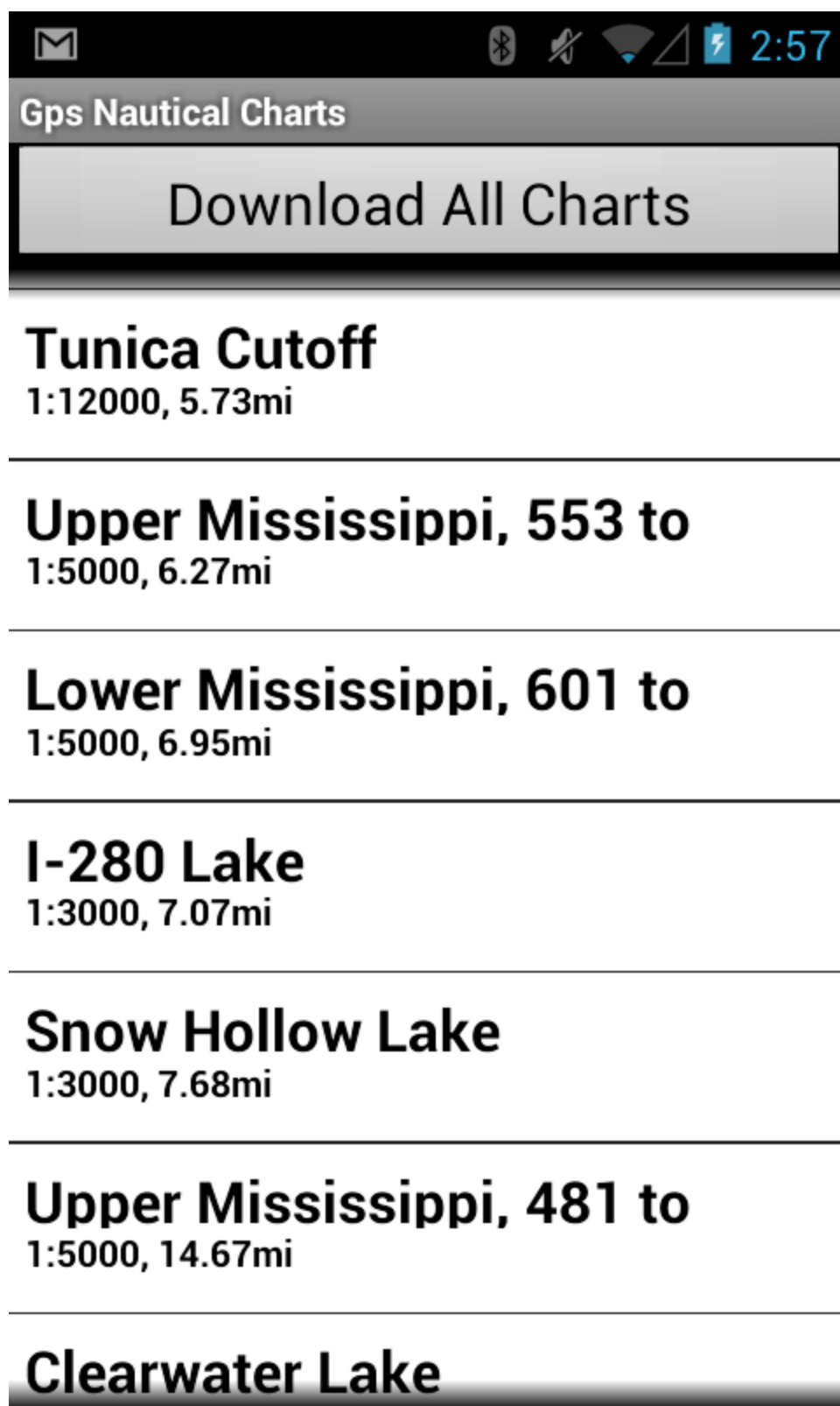It is important to note the following about distance bearing tool:

- It shows bearing to the point under the map cursor/pointer relative to the point when the distance bearing tool was started.
- It shows true bearing between points which is the angle w.r.t to the actual north vector measured in clockwise direction.
- By default the distance is shown in the metric units selected under Options (mi, km, NM).

Nearby Charts

This shows charts close to the chart that you are currently looking at.

Download All Charts

Tunica Cutoff
1:12000, 5.73mi

Upper Mississippi, 553 to
1:5000, 6.27mi

Lower Mississippi, 601 to
1:5000, 6.95mi

I-280 Lake
1:3000, 7.07mi

Snow Hollow Lake
1:3000, 7.68mi

Upper Mississippi, 481 to
1:5000, 14.67mi

Clearwater Lake

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Replay

This is a shortcut to view all recorded tracks on the device.