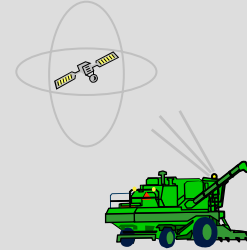# Navigating Using Your GPS and ArcPad
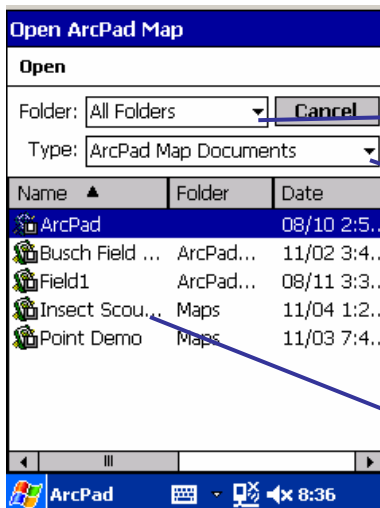
Michael J. Buschermohle, Professor
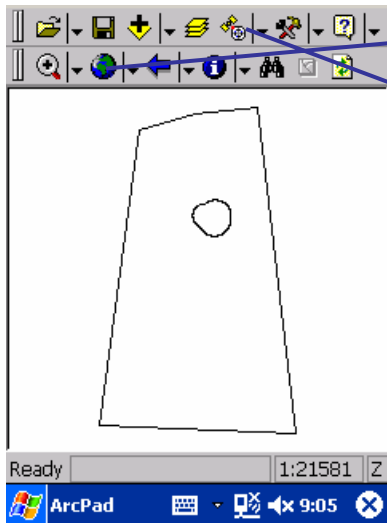**Biosystems Engineering and Environmental Science**

BEES 105

A PDA equipped with a GPS receiver and ArcPad software can be used for basic navigation. ArcPad gives you navigational information from your current GPS position to your point of interest such as coordinates on a map, a weedy area in a field you h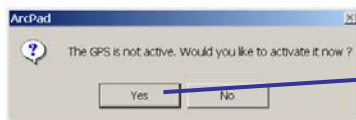ave previously mapped, or to your deer stand at the edge of a field. The navigational information that you receive from ArcPad includes the distance and bearing to the point you are trying to locate as well as the speed and ground course you are traveling as you navigate to that point.
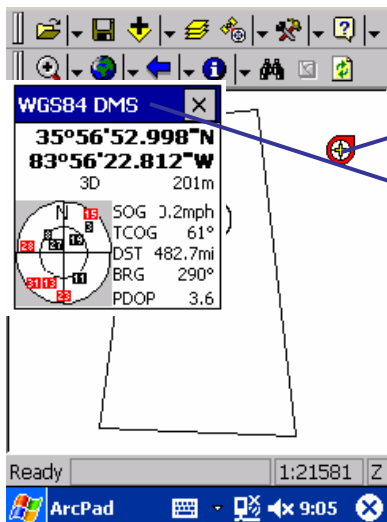

1. To open an existing ArcPad map, tap the Open File button on the Main toolbar. The Open ArcPad Map dialog window will appear.

2. Tap on the down arrow in the Folder box and select All Folders from the dropdown list.

3. Tap on the down arrow in the Type box and select ArcPad Map Documents. All your ArcPad map files, the folder in which they are stored and the date they were created will appear in the Open ArcPad Map window.

4. Tap on the Name of the file you wish to open. Your map will appear on the screen; for example Insect Scouting.

5. Tap on the Zoom to Full Extent. This will ensure that the entire map is displayed on the screen.

6. Tap the GPS Position Window button to activate the GPS receiver. A message box will appear indicating that the GPS receiver is not active.
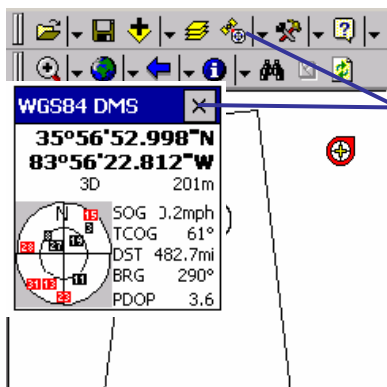
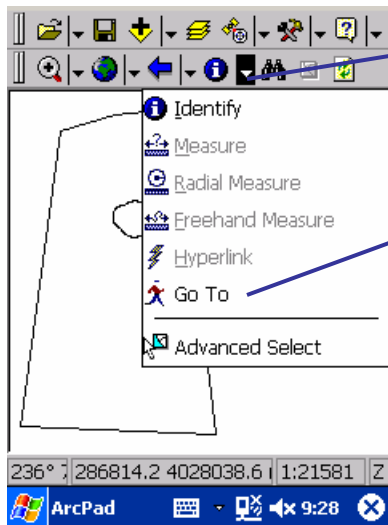7. Tap Yes to activate the GPS receiver.

8. The GPS Cursor is displayed when the GPS has been activated. The GPS Cursor is displayed at your current GPS position on the map.

9. The GPS Position Window can be moved around by tapping and holding on the blue title bar and then dragging to a new location on the screen.
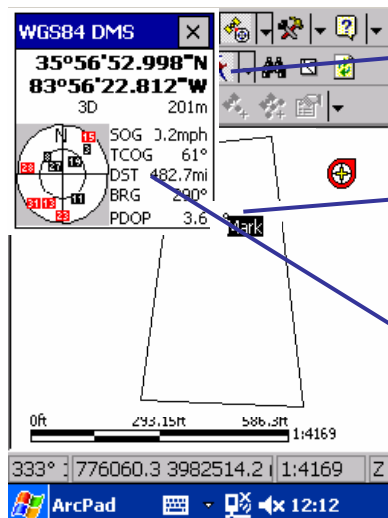
- Tapping the X in the blue title bar removes the GPS Position Window.

- To reopen the GPS Position Window, tap the GPS Position button on the Main Toolbar.

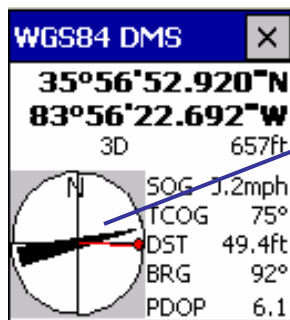10. Tap the arrow to the right of the Identity button on the Browse toolbar to display the dropdown list.

11. The Go To tool is used to select the destination on your map you want to navigate to. Tap the Go To tool to activate the tool.

12. The Go To button is displayed on the Browse toolbar and is depressed to indicate that the tool is activated.
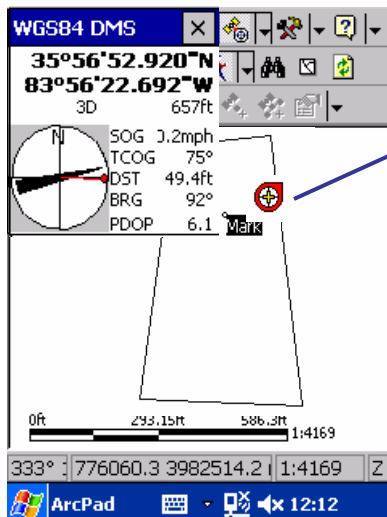
13. Tap the map with the stylus to select the destination you want to navigate to; for example, a previously scouted area in a field with high insect pressure. The destination you selected is displayed with a Mark label.

14. Tap the GPS Position Window Satellite Skyplot to toggle to the Signal Chart display. Tap the GPS Position Window again to toggle to the Compass display.
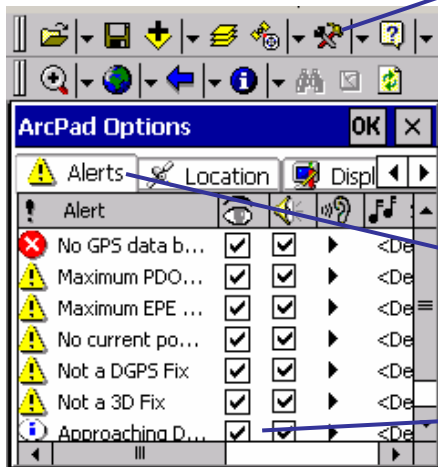
15. The Compass in the GPS Postion Window displays the GPS direction, or course over ground (COG), with a black arrow and the direction or bearing from your current GPS position to the destination you selected with a red line.

16. The bearing (BRG) and distance (DST) from your current GPS position to the destination you selected is shown in the GPS Position Window.

17. Using the Compass, begin navigating to your destination. The GPS Cursor is displayed at your current position and will move on the map as you navigate to your destination.
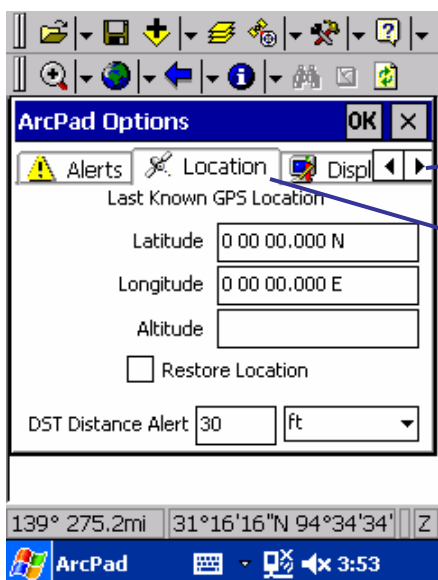

18. You can set an alert to notify you when you are approaching you destination. Tap the Tools button on the Main toolbar to open the ArcPad Options dialog box.

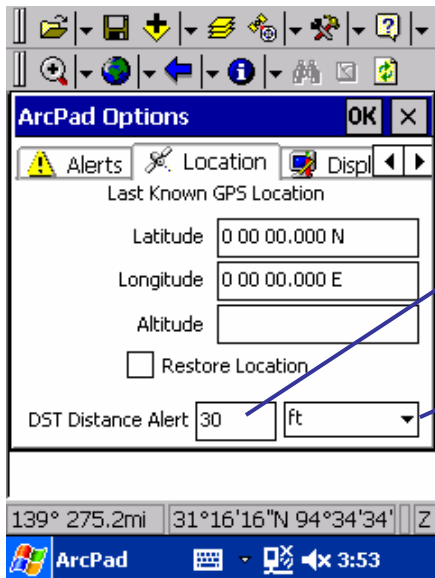19. Tap the forward arrow until the Alerts page appears in the ArcPad Options dialog box.

20. Tap the Alerts page to display the settings

21. A check inside the boxes next to Approaching Destination alert indicates that the message and or sound is active. Tapping inside the boxes activates or deactivates the message and sound alerts.

22. Tap the forward arrow until the Location page appears in the ArcPad Options dialog box.

23. Tap the Location page to display the settings. The Locations page is used to set a minimum distance from your current location to your desired location before when using your GPS receiver for navigation before displaying an alert.

24. Tap inside the box to the left of the DST Alert. Using the stylus and the provided keyboard, type the value 30.

25. Tap OK. ArcPad saves these communication parameters internally and you should not have to reset them again unless you use a different GPS receiver or you want to change some of the settings.

26. The Approaching Destination message box will be displayed when you are less than 30 feet from your selected destination

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