

Window (menu) ' ARPA/AIS Tracking

ARPA Tracked Targets from external radar														
T#	Name	Speed	Heading	Dist.to CPA	Time to CPA	Status	A./Man	Hide	Color	Tl Pnts	Track #	Range	Bearing	Vessel Size
51	GRAND	21.2N	120.0°	N/A	N/A	Sailing	AIS	X	Lt Blue	25		117.0Nm	273°	199x32
52	240011000	13.2N	330.0°	85.88N	3333333.3Min	Powered	AIS	X	Lt Blue	56		85.8Nm	292°	?
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														

Items to display next to target
☐ Target Name ☐ Lat./Long.
☒ Target Number ☒ Dist. to CPA
☒ Speed ☐ Time to CPA
☒ Course ☐ Range /Bearing
 ☐ Don't Drop Lost Target from list

Target tracking
Target Duration 10
Max. Track Pts 600
Refresh (sec.) 5
☒ Tracking on
☒ Auto Save

Target Label

☐ Solid back
☒ Use Icons

CPA Alarm
Dist Off(Nm)
Time Off(Min.)
(0=off)
☐ Heads up
☒ Use AIS

AIS Setup
Icon Size(10-99) 64
Drop after (min) 5
☒ Save AIS Tracks
☒ AIS Icon only
☒ Size Icon to ship
☒ Alarm on new target

This item in the WindPlot's *Window* menu allows for setting up of ARPA targets. Requires the NMEA0183 sentence "TTM" to be fed into one of the COM ports and/or AIS option activated. WindPlot can handle up to 99 targets. Each target can have a variety of information displayed next to it. You can also control what color (if any) of track is displayed from each target. All of this is controlled from the ARPA menu. The menu list all targets it is receiving and of the data for each target such as range to target, target speed and heading, closest point of approach and time to CPA. To have this work well, you need to have an accurate heading input for the plotter, hopefully, the same as the ARPA unit.

Saving a Target Track

Any target that is valid from the ARPA or AIS device will be listed in the top part of the menu. Clicking target number, the first column in the list, will cause the target to be added to your tracks list. Be sure to note the track number it is saved in if you are going to resave it again later and keep the track number the same. You will see what we mean when you attempt to save a track.

Hiding a Target Track

Clicking on the second to last column will cause the target to be hidden from the plotter screen.

Changing Target Track Color

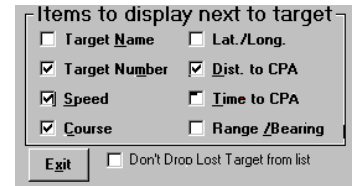
Click the 10th (*Color*) column is if you want to change the target track color. A *Select target track color* window will appear. Just click on the desired color in this window then click on *OK*.

Calling the ARPA menu:

- 1 Click on *Window* menu item in P-Sea WindPlot.
- 2 Click on *ARPA/AIS Tracking (x)*.

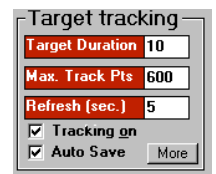
Changing what is displayed next to a target (called the target label)

There are five groups of controls (boxes) along the bottom of the menu. Starting from left to right, the first box is for setting up the text information that is displayed next to the target IF the target label is turned on and *Use AIS* is NOT checked. The default is just the target number. Click the white boxes in this group check and uncheck desired items. Check items will be displayed.



Target Track Setup

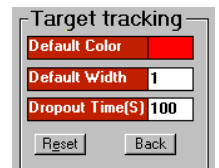
The next group labeled *TARGET TRACKING* is used to setup how the target track line is recorded. Click the white area in the top box *TARGET DURATION*, to set the time in seconds, that the program will save a target track point. Click the next box down, *MAX. TRACK Pts*, to set the maximum target track points that the program will remember. When the number of target track points gets to this value, the program loops back around and starts using the first memory points again. The third item down in this group is labeled *REFRESH (sec.)*, and controls how often the plotter screen targets are updated. You will notice a blinking effect when the labels are updated unless you are using the split screen and split screen data box.



The *Tracking on* box must be checked (°) if you want to display and record target tracks.

Tracks are automatically saved when the *Auto Save* is checked (°).

Click the *More* button for setting the default track color and width. Just click the box to the right of *Default Color* and select a new default from the Windows color menu. Click the white box next to *Default Width* and enter a number from 1 to 15 where 1 is the thinnest line you can make.

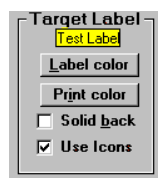


The *Dropout Time* is in seconds and is the time that the ARPA (only) target will be dropped from the list if no ARPA target data is received (this value does not effect AIS as it has it's own drop out time). This is over-ridden if you have the *Don't Drop Target from list* checked (°) that is located next to the exit button.

The button labeled *RESET* that is next to the track on box is for clearing all target tracks. When the *RESET* button is clicked, all target tracks are erased to only their current position.

Target Label Setup

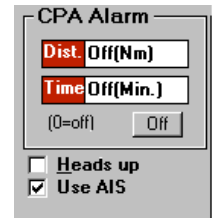
The third group from the left is the *TARGET LABEL* control box. It will control the appearance of the printing that is next to the target. Two buttons are provided to change the background and foreground colors of the printing. When the *Solid* box is checked (°), the back color will not have any affect and the printing will appear see-through.



Setting the CPA Alarm

ARPA provides for calculation of Closest Point of Approach or CPA for short. It calculates the CPA time and distance. That is the time and distance of CPA a target will be if both you and the target keeps on the present course. This is a very important safety aspect but always remember it does not mean you can leave your radar unattended. ***You should ALWAYS keep a vigilance on you radar for your own safety as equipment is always prone to failure.***

- 1) Call the ARPA menu, click on *Window* then select *ARPA Tracking*.
- 2) Click in white areas and enter in distance in miles and/or time in minutes.



Turning the CPA Alarm off

Just click the Off button located below the settings.

Heads up

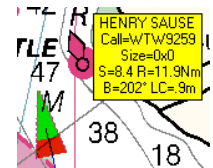
This is to set the orientation mode. Check this box if the targets are not where they should be.

Use AIS

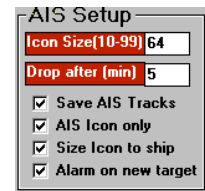
Ordering AIS Activation Code: You must purchase the AIS activation code before you can use it through your local P-Sea Software dealer. The dealer will give you a number that will activate the AIS option. The WindPlot program will ask for this number when you attempt to start the AIS tracking function in WindPlot. Just open WindPlot, click on *Adjustments* and then select *Chg.COM Ports/Time*. Then just click the AIS check box in the window that appears and enter the activation number you were given by the dealer when prompted to do so.

What is AIS? The Automatic Identification System sends and receives data about the vessel(s) via a VHF radio on a timely basis. Data CAN consist of Lat./Long. Position, speed, heading, width, length, call sign, name, number of passengers, type of cargo, current status and so on. WindPlot can use the NMEA0183 VDM (Vessel Data Message) sentence from a AIS receiver to display this data on the plotter screen so you can tell at a glance the vessel's size, speed and heading. Then further information can be obtained by simply placing the mouse arrow over the AIS target or by looking at the AIS/ARPA list.

Using AIS Icons: You have the option of displaying AIS data using a label with selectable data on the plotter screen at all times or displaying ship's data in a form of an icon pointer. The icon pointer is a wedged-shaped icon that transitions from green (stopped) to red depending on the speed the AIS target is doing. This icon always points the direction the vessel is heading. There is also a size option that makes the icon change size according to the vessels size. **AIS Icons are turned on** by clicking the *Adjustment* menu and select *Chg.COM Ports/Time*. Then click the *Show AIS* check box. You should see a new sentence *!??VDM* coming through the data window. This may take a while depending on how many (if any) AIS targets are around.



Sizable AIS Icons: When AIS Icons function is activated, the size of the AIS Icon will change with the size of vessel. This will not happen at first, the vessel will be the size of the manual setting until the size of the vessel is reported and this may take up to 10 minutes as it is not transmitted as often as the position is (if it is sent at all). AIS setup is all done in the ARPA/AIS window. **To activate the sizable icons,** click *Window* menu and select *ARPI/AIS Tracking* and click the *Size Icon to Ship* check box.



NOTE: The ARPA/AIS Tracking window will not be available unless some AIS targets have been received. Click the “*Recheck*” button to enter the menu if no data is available.

Alarm on new target: The AIS target alarm will sound both a beeper and a voice when an AIS target is picked up. The ship must have a speed and be changing position or the alarm ignores it and does not sound. This function also requires the voice to be turned on in the *Window ' Sounds & Unit conversions* menu. The program will automatically turn the voice and sound on if not already turned on when selecting this function. **To activate the AIS alarm,** click *Window* menu and select *ARPA/AIS Tracking* and click the *Alarm on new target* check box.

Manual Icon Size: You can make all of the AIS icons the same size by un-checking the *Size icon to ship* check box in the ARPA/AIS window and then set the size by changing the pixel size value in the *Icon Size* text box. Size can be from 10 to 90 where 64 or 32 is the preferred manual size of the icon.

No AIS Signal Dropout Time: When a vessel is out of VHF communications range the AIS information will no longer be available and the vessel may or may not be as shown on the chart. You can enter a time in minutes that if no signal is received from the target in this time period, the computer will drop it from the list. It will also automatically save it if you have the *Auto Save* option in the ARPA/AIS window checked (°) and the *Save AIS Tracks* checked (°) as well.

Blank menu? The menu will appear blank when WindPlot is receiving no valid ARPA data. If the list does not appear, check to see that the information is connected to the first COM port and can see the “TTM” sentence.