



## CATALOGUE

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### INDEX

|  |    |
|--|----|
| PC Windows ARCS Electronic charts software programs              | 4  |
| ARCS Electronic Charts   | 11 |
| PC Windows AVCS ENC Electronic charts software programs          | 12 |
| AVCS ENC Electronic Charts                                       | 21 |
| PC Windows Navigation, Stability and Surveying software programs | 22 |
| Passage Planning Manual  | 29 |
| Pocket Navigation Computers                                      | 30 |
| Pocket PC software programs                                      | 31 |
| Psion Revo software programs                                     | 33 |
| Psion Series 5 software programs                                 | 35 |
| Psion Series 7 and Psion-Teklogix Netbook software programs      | 40 |
| Psion Series 3 and Workabout software programs                   | 43 |
| AIS Receivers, Transponders and Accessories                      | 49 |
| NMEA Accessories   | 56 |
| HP iPAQ handheld computers                                       | 58 |
| PSION DIGITAL handheld computers & accessories.                  | 61 |
| PSION-TEKLOGIX handheld computers & accessories.                 | 67 |
| GPS (Global Positioning System) receivers & accessories.         | 68 |

## **NEW!**

Our Bluetooth Wireless AIS Pilot Plug Cable unit (Order Code HA27BTAISCABLE) has been updated and it is now fitted with a 1 metre long cable to connect to the vessel's Pilot Plug, allowing easy positioning of the unit.

We have added our new Network PC Chartplanner for Windows (SWPC31 ) software to our catalogue. Network PC Chartplanner for Windows is designed for VTS centre or Office usage and gives the facility to run a copy of our PC Chartplanner for Windows software on multiple PCs connected to the network . Charts, live AIS data and other data are all stored and managed on the central Windows Server and automatically passed to each PC.

## **MARINE SOFTWARE PROGRAMS**

### **Windows Version Required**

All our PC Windows programs will run under Windows 7 and Windows 8 and Windows 10. If required , we can also supply programs to run under earlier versions of Windows (please ask).

### **Minimum Computer Specification Required**

The minimum computer specification required is listed after every program.

### **Installation Instructions**

All our software programs are supplied complete with installation instructions included in the comprehensive program manual.

### **Examples and Instructions**

All our software programs are supplied complete with a comprehensive program manual which includes full examples and instructions.

### **Virus Checking**

All our programs are checked to ensure they are virus free before dispatch.

### **Customer Support**

All our standard product prices include our free lifetime user support service, with free advice and support available world-wide. All hardware supplied carries a one-year guarantee.

Whilst other software firms may ask you to pay extra for software support we provide FREE support by telephone, fax, letter and e-mail to all users of our programs for an unlimited period, anywhere in the World.

### **Custom Software and Packages**

We also offer custom made programs, complete systems and specialist computers to your specification at reasonable prices. In many cases we can modify one of our existing programs. Please contact us for free advice and quotations on custom software programs and packages.

### **Further**

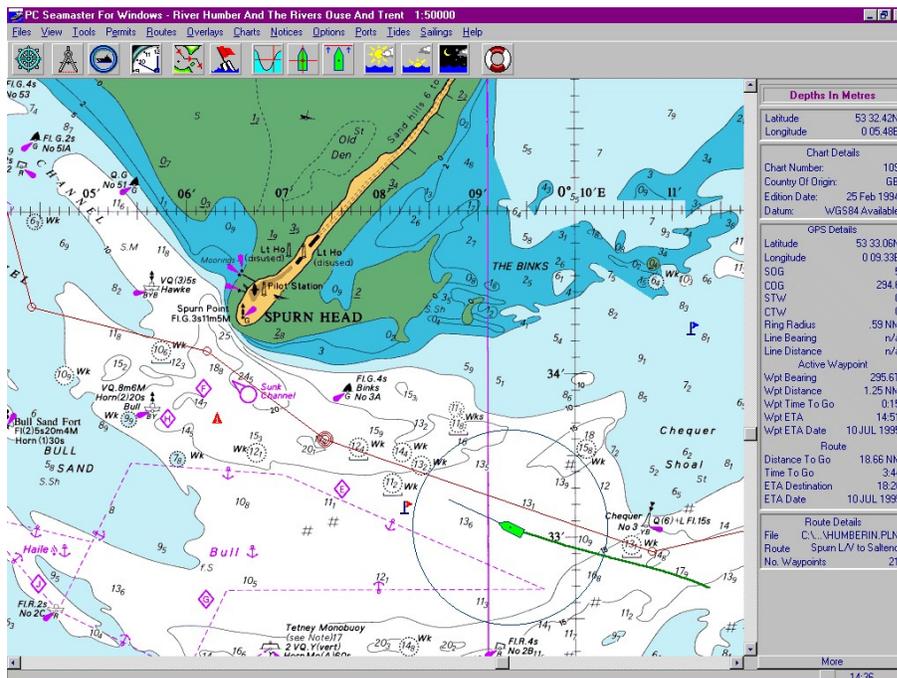
These pages are only a summary of our ready-made products. With our many years of development experience we can offer much more, please contact us for FREE advice should you require further details.

E&O.E

## Marine Programs for Windows PCs

### **PC SEAMASTER for Windows— now with AIS and ARPA!** (Order Code SWPC18)

**PC Seamaster for Windows** is a sophisticated Navigational electronic charting program using the World renowned British Admiralty **ARCS** Electronic Charts. Seamaster will interface with your GNSS (GPS) or other Navigational receiver and provides a real time display of your vessel's position, course and speed. A full set of Electronic tools is provided to enable easy planning and monitoring of voyages. Seamaster is ready to interface to GPS receivers, AIS receivers and AIS transponders and ARPA Radars.



Program functions available include:

#### **VOYAGE PLANNING**

- Creation of multiple Voyage (Route) plan files, with comments.
- Voyage plans can be created and edited using a text based dialog or by simply dragging and dropping Waypoints on the Chart.
- Each voyage file contains the Waypoints for the voyage and the course between Waypoints can be set to be Rhumb Line, Great Circle or Composite Great Circle sailing.
- Voyage plans can be easily viewed, edited or added to.
- The calculated voyage display shows the course(s) and distances between each pair of Waypoints and the ETA at each Waypoint for an entered speed.
- The calculated voyage plan can be printed or output to a text file.
- The displayed Chart can be printed or saved to bitmap file.

#### **VOYAGE MONITORING**

- Own vessel icon prediction Vector.
- Own vessel track display.
- Tracks can be saved to file for later replay and guidance, particularly useful for difficult or poorly marked Ports.
- Saving of multiple own vessel tracks to file (particularly useful for recalling and display of entries to Ports etc).
- Selection of Active Waypoint and on screen display of ETA, distance to go to Waypoint , ETA at end of Route etc etc.
- Instant dropping of overlay symbol at own ship position.

## PC SEAMASTER for Windows –contd...

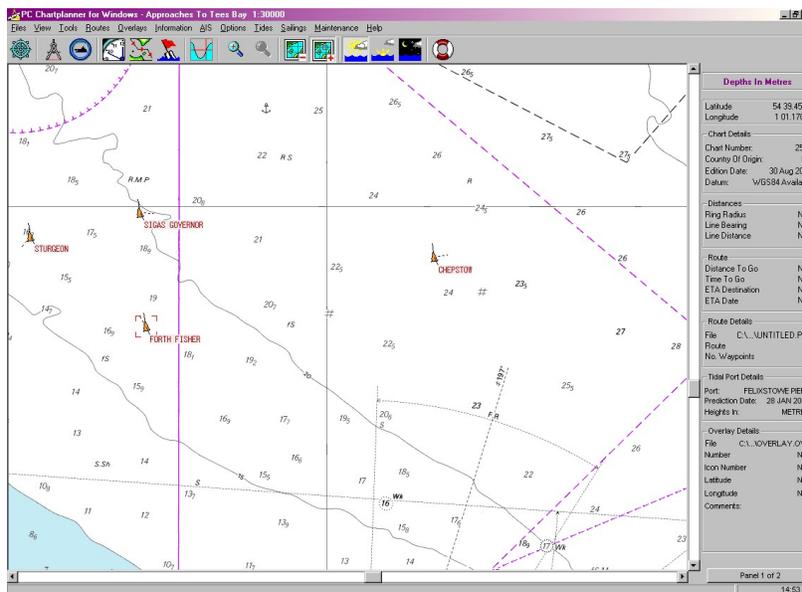
### AIS TARGET DISPLAY –

- Can be connected to our low cost SLR200 /SLR200G AIS receiver or to a Class A or Class B AIS transponder via one of the connections provided on the unit or by the unit's Pilot plug ( optional cable available).
- Display of all received AIS targets (both Class A and Class B) , using IMO AIS vector symbols.
- Target selection and display of all details for the selected target.
- Display of list of all AIS Targets on screen.
- Display of AIS enabled navigation marks.

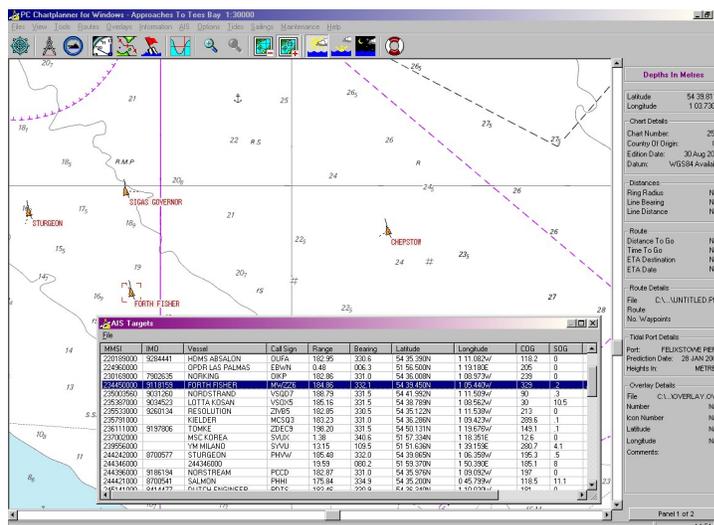
### ARPA Radar TARGET DISPLAY –

- Can be connected to a ARPA Radar.
- Display of all received ARPA targets, using IMO Radar vector symbols.

### AIS Targets displayed (when connected to optional AIS receiver or transponder)



### AIS Targets display (with list of AIS targets shown)



## **PC SEAMASTER for Windows –contd...**

### **ELECTRONIC CHART TOOLS –**

- Electronic Dividers
- Range Rings
- Overlays manager.
- Multiple overlay plotting positions and comments can be stored and retrieved to and from file.
- 50 pre-defined overlay icons and 50 user-definable icons.
- Zoom in and Out
- Daytime, Dusk and Night Time colours and much more.
- Generation of IAMSAR Search Patterns (for searching for other vessels etc).

### **CHART OVERLAYS**

- Multiple overlays can be made for surveying and Chart customisation etc.
- Wide range of symbols available.
- Draw and add your own Symbols to the library (utility included).
- Instant dropping of overlay symbol at own ship position.

### **SAILINGS**

- Rhumb line sailings.
- Great Circle sailing.
- Composite Great Circle sailing.
- Find Position. (D.R Position).
- Course & Speed made good.
- Course to Steer.

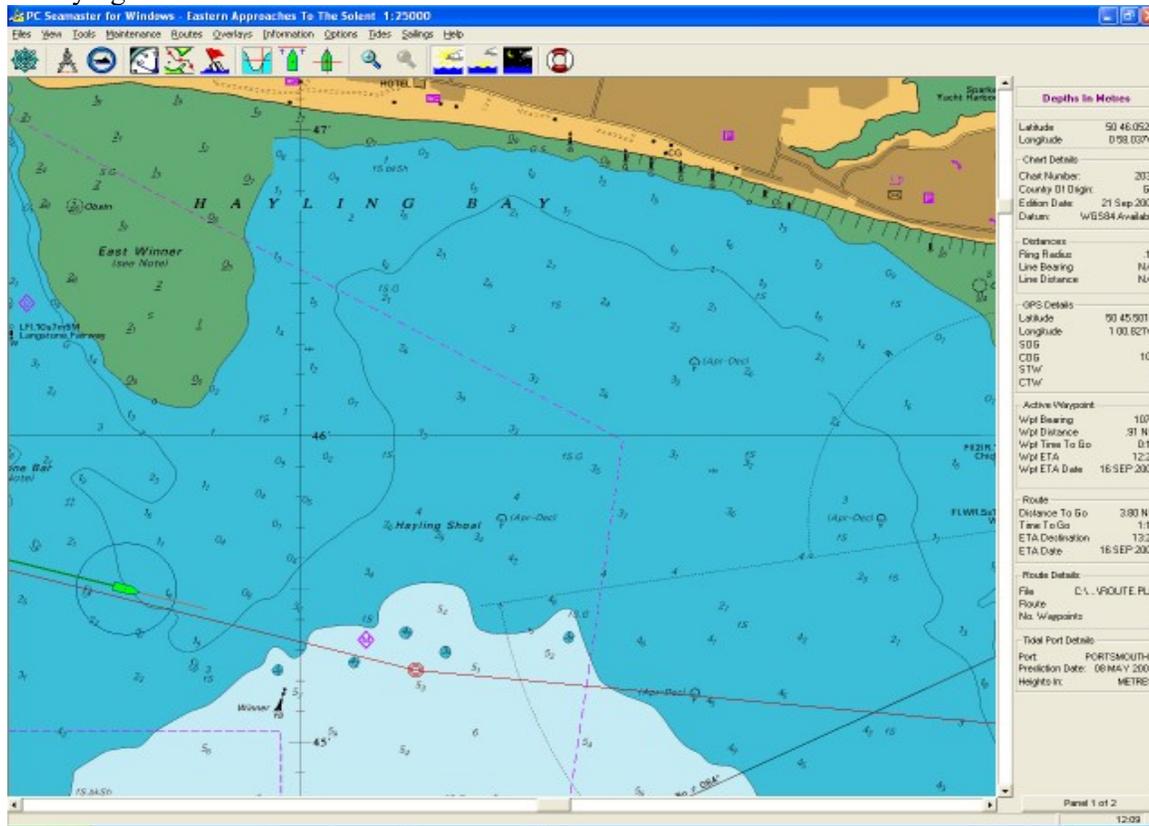
### **TIDAL PREDICTIONS**

- Memory of all data for tidal predictions.
- Selection of any Time zone by the user, irrespective of the Port's zone.
- Inbuilt Tidal data for over 600 European Ports.
- You can add your own Ports for anywhere in the World.
- Calculation of Tidal heights at any entered Port for any date from 1900 to 2090.
- Output of Heights in Metres or Feet.
- Graphic display of the tidal height curve for 2 days with moving cursor and Draught line.
- Real time graphic display of the tidal height curve with moving cursor; automatically updated from the computer's clock and calendar.
- Prediction of High and Low water times and heights for 2-31 days.
- Output of Tidal heights at 6 minute intervals for 2 days.
- Graphic Tidal curves can be printed.
- Text output of Tides can be printed or exported to text file.
- Find nearest Port function & Rapid search function for Port name.

System Requirements: PC with Pentium 500 Mhz or faster processor, 32MB RAM, hard disk, mouse and VGA screen. Windows 7 or Windows 8 or Windows 10.

## PC YACHT CHART DISPLAY for Windows

*PC Yacht Chart Display for Windows* is a sophisticated navigational electronic charting program using the world renowned British Admiralty ARCS Electronic charts. Yacht Chart Display will interface with your GPS or other navigational receiver and provides a real time display of your vessel's position, course and speed. Multiple plotting positions and comments can be stored and retrieved. Multiple "overlays" can be made for surveying and customisation.



Program functions available include:

**VOYAGE PLANNING** - Creation of multiple voyage plan files, with comments. Each voyage file contains the waypoints for the voyage and the course between waypoints can be set to be Rhumb Line, Great Circle or Composite Great Circle sailing. Voyage files can be easily viewed, edited or added to. The calculated voyage display shows the course(s) and distances between each pair of waypoints and the ETA at each waypoint for an entered speed. The calculated voyage plan can be printed or output to a text file.

**SAILINGS** - Rhumb line sailings. Great Circle sailing. Composite Great Circle sailing. Find position. (D.R Position). Course & speed made good. Course to steer.

**TIDAL PREDICTIONS** - Memory of all data for tidal predictions. Selection of any time zone by the user, irrespective of the port's zone. Inbuilt tidal data for over 600 European ports. You can add your own ports for anywhere in the world. Calculation of tidal heights at any entered port for any date from 1900 to 2090. Output of heights in metres or feet. Graphic display of the tidal height curve for 2 days with moving cursor and draught line. Real time graphic display of the tidal height curve with moving cursor; automatically updated from the computer's clock and calendar. Prediction of high and low water times and heights for 2-31 days. Output of tidal heights at 6 minute intervals for 2 days. Graphic tidal curves can be printed. Text output of tides can be printed or exported to text file. Find nearest port function & rapid search function for port name. PC Yacht Chart Display uses ARCS 'Navigator' charts.

PC Yacht Chart Display Europe (Order Code SWPC22) can use ARCS Navigator Charts for chart areas RC1, 2 and 4 (see ARCS CD-ROM coverage diagram).

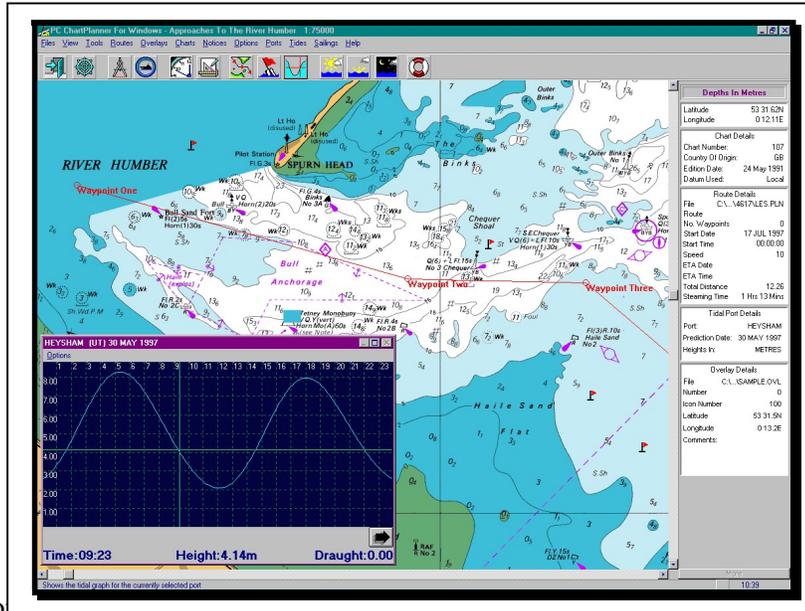
PC Yacht Chart Display USA (Order Code SWPC24) can use ARCS Navigator Charts for chart areas RC8 and 9.

PC Yacht Chart Display Africa (Order Code SWPC23) can use ARCS Navigator Charts for chart area RC10.

Minimum requirements: Windows 7 or Windows 8 or Windows 10 and 100MB free hard disk space.

## PC CHARTPLANNER for Windows – now with AIS and ARPA! (Order Code SWPC19)

**PC ChartPlanner for Windows** is a sophisticated Navigational electronic charting program using the World renowned British Admiralty **ARCS** Electronic Charts. Designed for accurate plotting and voyage planning for Harbour Authorities, Ship Pilots, Fleet Manager, Ship Masters, Officers and Surveyors. A full set of Electronic tools is provided to enable easy planning and monitoring of voyages. Chartplanner is ready to interface to GPS receivers , AIS receivers and AIS transponders and ARPA Radars.



Program function

### **VOYAGE PLANNING**

- Creation of multiple Voyage (Route) plan files, with comments.
- Voyage plans can be created and edited using a text based dialog or by simply dragging and dropping Waypoints on the Chart.
- Each voyage file contains the Waypoints for the voyage and the course between Waypoints can be set to be Rhumb Line, Great Circle or Composite Great Circle sailing.
- Voyage plans can be easily viewed, edited or added to.
- The calculated voyage display shows the course(s) and distances between each pair of Waypoints and the ETA at each Waypoint for an entered speed.
- The calculated voyage plan can be printed or output to a text file.
- The displayed Chart can be printed or saved to bitmap file.

### **AIS TARGET DISPLAY –**

- Can be connected to our low cost SLR200 /SLR200G AIS receiver or to a Class A or Class B AIS transponder via one of the connections provided on the unit or by the unit's Pilot plug ( optional cable available).
- Display of all received AIS targets (both Class A and Class B) , using IMO AIS vector symbols.
- Target selection and display of all details for the selected target.
- Display of list of all AIS Targets on screen.
- Display of AIS enabled navigation marks.
- Recording and playback of AIS data.

### **ARPA Radar TARGET DISPLAY –**

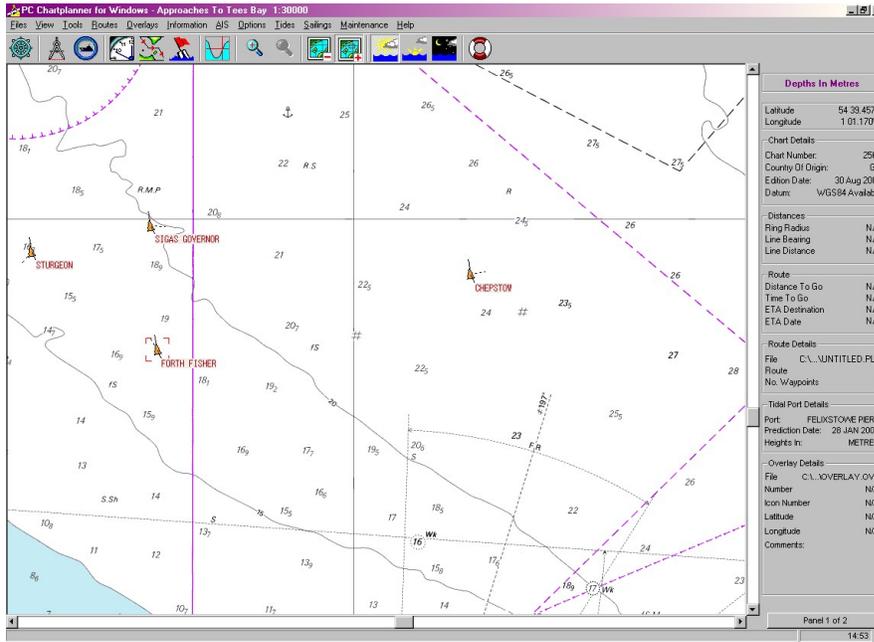
- Can be connected to a ARAP Radar.
- Display of all received ARPA targets, using IMO Radar vector symbols.

### **CHART OVERLAYS**

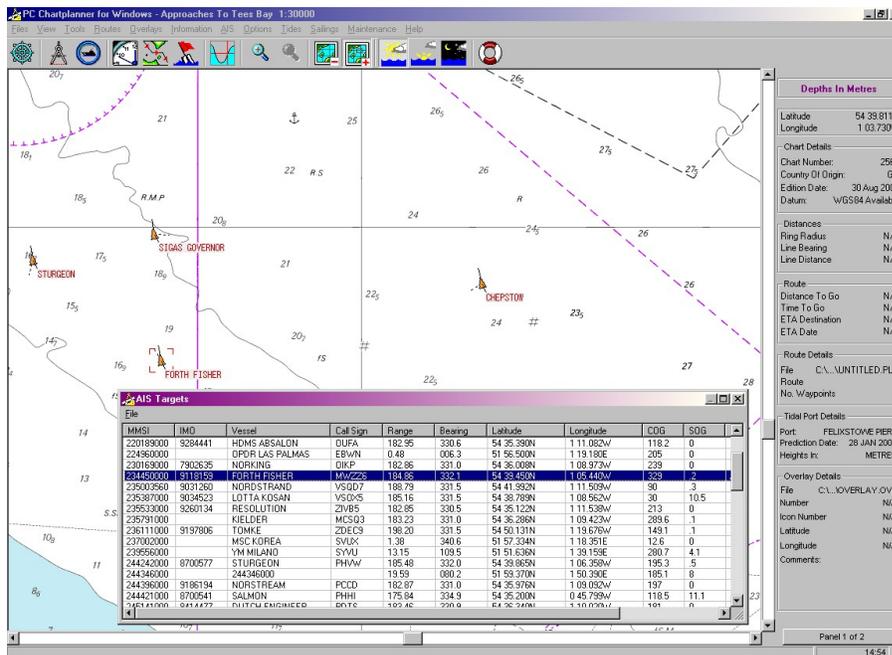
- Multiple overlays can be made for surveying and Chart customisation etc.
- Wide range of symbols available.
- Draw and add your own Symbols to the library (utility included).
- Instant dropping of overlay symbol at own ship position.

# PC CHARTPLANNER for Windows –contd...

## AIS Targets displayed (when connected to optional AIS receiver or transponder)



## AIS Targets display (with list of AIS targets shown)



## **PC CHARTPLANNER for Windows –contd...**

### **ELECTRONIC CHART TOOLS –**

- Electronic Dividers
- Range Rings
- Overlays manager.
- Multiple overlay plotting positions and comments can be stored and retrieved to and from file.
- 50 pre-defined overlay icons and 50 user-definable icons.
- Zoom in and Out
- Daytime, Dusk and Night Time colours and much more.
- Generation of IAMSAR Search Patterns (for searching for other vessels etc).

### **SAILINGS**

- Rhumb line sailings.
- Great Circle sailing.
- Composite Great Circle sailing.
- Find Position. (D.R Position).
- Course & Speed made good.
- Course to Steer.

### **TIDAL PREDICTIONS**

- Memory of all data for tidal predictions.
- Selection of any Time zone by the user, irrespective of the Port's zone.
- Inbuilt Tidal data for over 600 European Ports.
- You can add your own Ports for anywhere in the World.
- Calculation of Tidal heights at any entered Port for any date from 1900 to 2090.
- Output of Heights in Metres or Feet.
- Graphic display of the tidal height curve for 2 days with moving cursor and Draught line.
- Real time graphic display of the tidal height curve with moving cursor; automatically updated from the computer's clock and calendar.
- Prediction of High and Low water times and heights for 2-31 days.
- Output of Tidal heights at 6 minute intervals for 2 days.
- Graphic Tidal curves can be printed.
- Text output of Tides can be printed or exported to text file.
- Find nearest Port function & Rapid search function for Port name.

System Requirements: PC with Pentium 500 Mhz or faster processor, 32MB RAM, hard disk, mouse and VGA screen. Windows 7 or Windows 8 or Windows 10.

## **PC CHARTPLANNER for Windows – Network Version** (Order Code SWPC31)

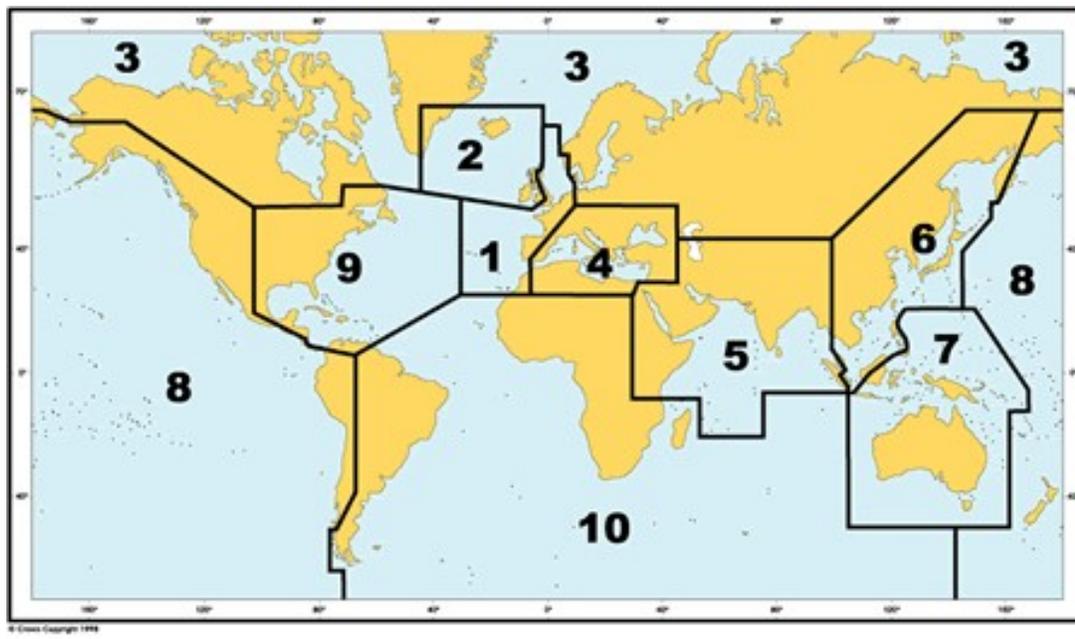
Network PC Chartplanner for Windows is designed for VTS centre or Office usage and gives the facility to run a copy of our PC Chartplanner for Windows software on multiple PCs connected to the network . Charts, live AIS data and other data are all stored and managed on the central Windows Server and automatically passed to each PC.

## UKHO ARCS Electronic Charts

ARCS Electronic charts give world wide coverage and they are produced to the highest standards by the UKHO (UK Hydrographic Office). They are called 'ARCS Navigator'.

- ARCS 'Navigator' charts expire after 1 year and include weekly updates CDROMs. They are available in standard or custom folios which cover the world..

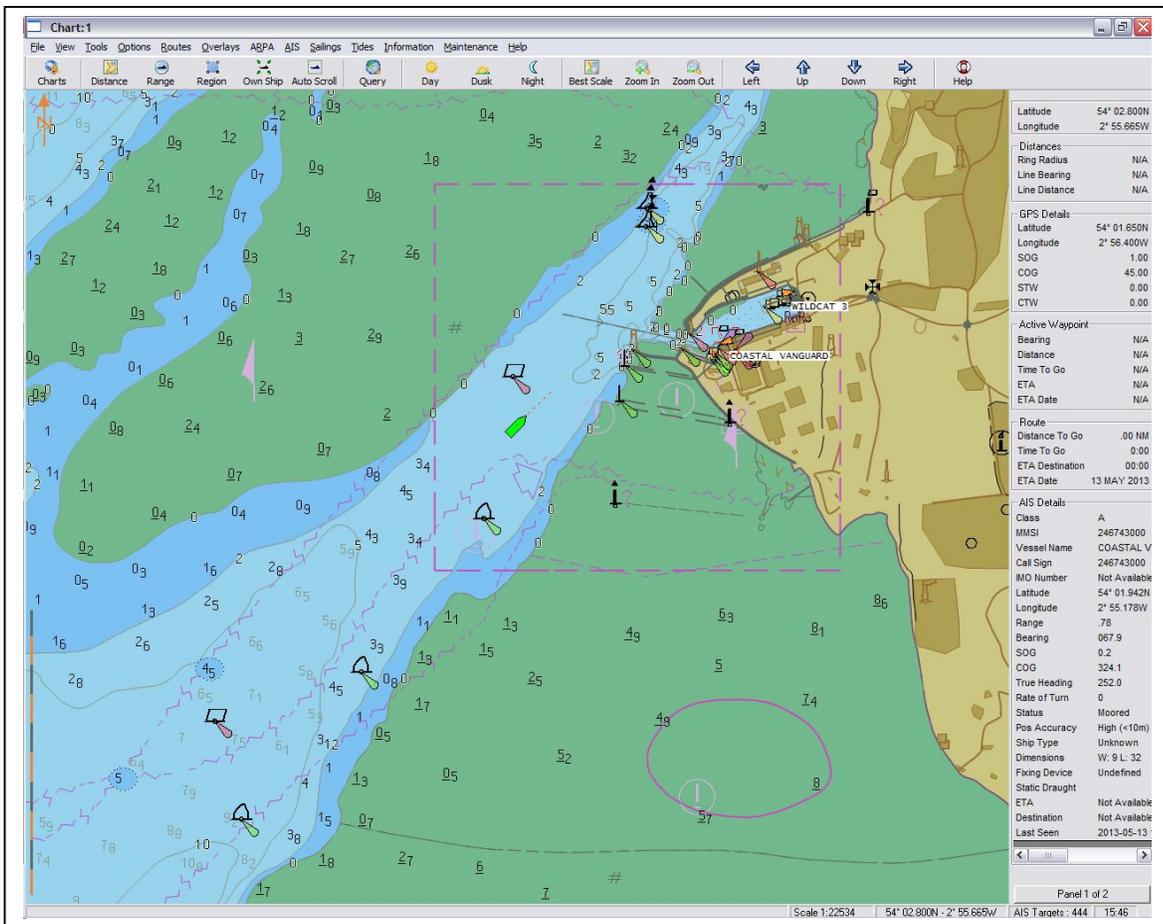
### ARCS 'Navigator' Chart CD-ROM Areas (RC1-10)



## PC ENC Navigator for Windows (Order Code SWPC28)

**PC ENC Navigator for Windows** is a professional and sophisticated but easy to use Navigational electronic charting program using ENC vector charts, such as the well renowned British Admiralty AVCS Electronic Charts or standard S-57 Charts.

ENC Navigator will interface with your GNSS (GPS) or other Navigational receiver and provides a real time display of your vessel's position, course and speed. A full set of Electronic tools is provided to enable easy planning and monitoring of voyages. When interfaced to a AIS (Automatic Identification System) receiver, ENC Navigator will display all AIS targets received as well as own vessel's position. ENC Navigator will also display Radar ARPA targets.



Program functions available include:

### **VOYAGE PLANNING**

- Creation of multiple Voyage (Route) plan files, with comments.
- Voyage plans can be created and edited using a text based dialog or by simply dragging and dropping Waypoints on the Chart.
- Each voyage file contains the Waypoints for the voyage and the course between Waypoints can be set to be Rhumb Line, Great Circle or Composite Great Circle sailing.
- Voyage plans can be easily viewed, edited or added to.
- The calculated voyage display shows the course(s) and distances between each pair of Waypoints and the ETA at each Waypoint for an entered speed.
- The calculated voyage plan can be printed or output to a text file.
- The displayed Chart can be printed or saved to bitmap file.

## **PC ENC Navigator for Windows –contd...**

### **VOYAGE MONITORING**

- Own vessel icon prediction Vector.
- Own vessel track display.
- Tracks can be saved to file for later replay and guidance, particularly useful for difficult or poorly marked Ports.
- Saving of multiple own vessel tracks to file ( particularly useful for recalling and display of entries to Ports etc).
- Selection of Active Waypoint and on screen display of ETA, distance to go to Waypoint , ETA at end of Route etc etc.
- Instant dropping of overlay symbol at own ship position.

### **AIS TARGET DISPLAY**

- Can be connected to one of our low cost AIS receivers or to a Class A or Class B AIS transponder via one of the connections provided on the unit or by the unit's Pilot plug ( optional cables available).
- Target selection and display of all details for the selected target.
- Display of list of all AIS Targets on screen.

### **ARPA RADAR TARGET DISPLAY –**

- When interfaced to a suitable ARPA Radar, ENC Navigator will display ARPA Radar targets.

### **ELECTRONIC CHART TOOLS**

- Electronic Dividers
- Range Rings
- Overlays manager.
- Multiple overlay plotting positions and comments can be stored and retrieved to and from file.
- 50 pre-defined overlay icons and 50 user-definable icons.
- Zoom in and Out
- Daytime, Dusk and Night Time colours and much more.

### **CHART OVERLAYS**

- Multiple overlays can be made for surveying and Chart customisation etc.
- Wide range of symbols available.
- Draw and add your own Symbols to the library (utility included).
- Instant dropping of overlay symbol at own ship position.
- Create Chart overlay regions to mark “no go” areas, working areas etc.

### **SAILINGS**

- Rhumb line sailings.
- Great Circle sailing.
- Composite Great Circle sailing.
- Find Position. (D.R Position).
- Course & Speed made good.
- Course to Steer.

### **VECTOR CHART (S-57) FUNCTIONS**

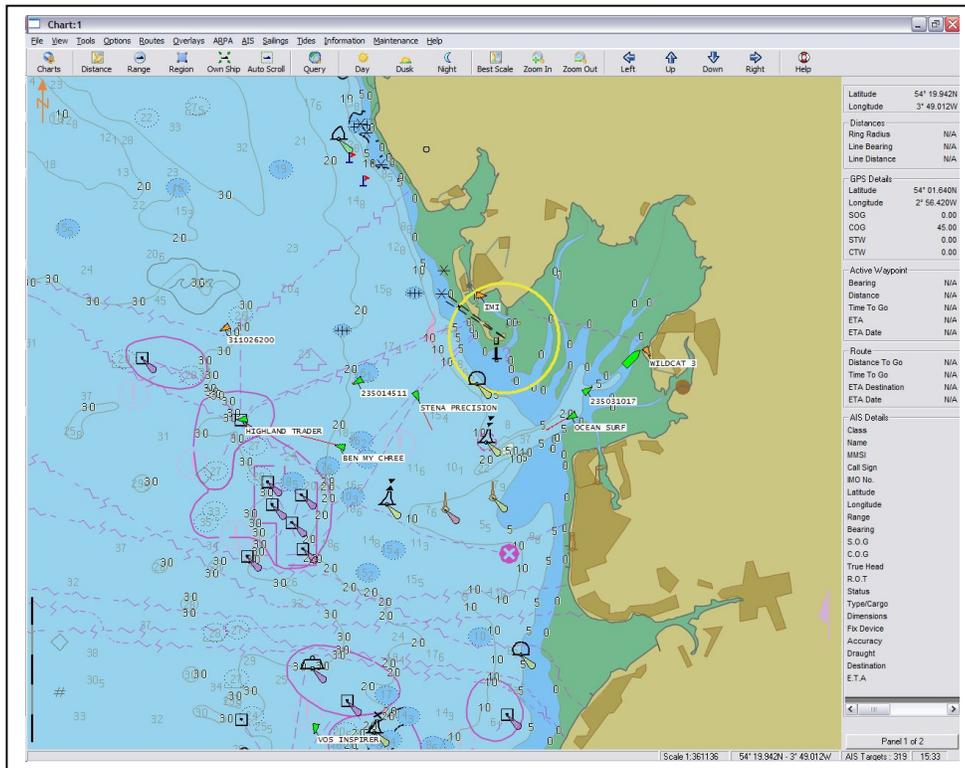
- Store comments for Chart.
- Set own depth safety contour.
- Query all Chart objects.
- Select between base and full data layers, to ease screen clutter as needed.
- Set ENC Chart to Best Scale.

### **TIDAL PREDICTIONS**

- Memory of all data for tidal predictions.
- Selection of any Time zone by the user, irrespective of the Port's zone.
- Inbuilt Tidal data for over 600 European Ports.
- You can add your own Ports for anywhere in the World.

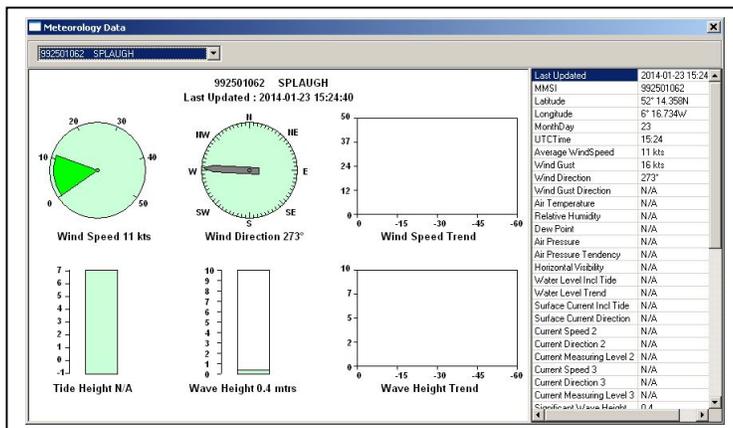
## PC ENC Navigator for Windows –contd...

- Calculation of Tidal heights at any entered Port for any date from 1900 to 2090.
- Output of Heights in Metres or Feet.
- Graphic display of the tidal height curve for 2 days with moving cursor and Draught line.
- Real time graphic display of the tidal height curve with moving cursor; automatically updated from the computer's clock and calendar.
- Prediction of High and Low water times and heights for 2-31 days.
- Output of Tidal heights at 6 minute intervals for 2 days.
- Graphic Tidal curves can be printed.
- Text output of Tides can be printed or exported to text file.
- Find nearest Port function & Rapid search function for Port name.



## AIS ATON (AID TO NAVIGATION) DATA

- Receive and display meteorological, wave and tidal data etc from local AIS ATON buoys and beacons.

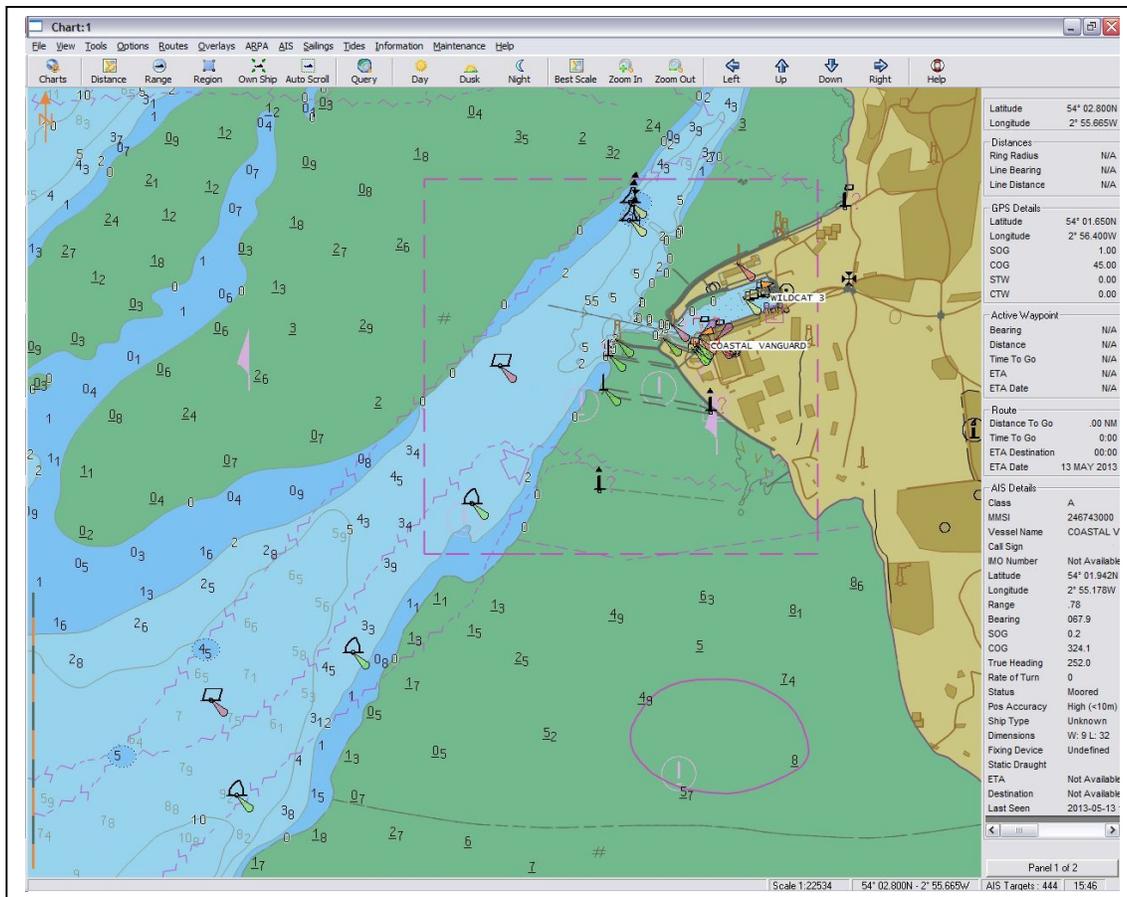


System Requirements: PC with Intel i5 or faster processor, 8GB RAM, 10 GB free hard disk space (SSD preferred), mouse and XGA screen. Windows7 or Windows 8 or Windows 10.

## PC ENC Shore Navigator for Windows (Order Code SWPC29)

**PC ENC Shore Navigator for Windows** is a professional and sophisticated but easy to use Navigational electronic charting program using ENC vector charts, such as the well renowned British Admiralty AVCS Electronic Charts or standard S-57 Charts.

ENC Shore Navigator is intended for harbour or office based use, for planning and monitoring. All files produced are compatible with our ENC Navigator product, designed for use onboard vessels. A full set of Electronic tools is provided to enable easy planning and monitoring of voyages. When interfaced to a AIS (Automatic Identification System) receiver, ENC Shore Navigator will display all AIS targets received. ENC Shore Navigator will also display Radar ARPA targets.



Program functions available include:

### **VOYAGE PLANNING**

- Creation of multiple Voyage (Route) plan files, with comments.
- Voyage plans can be created and edited using a text based dialog or by simply dragging and dropping Waypoints on the Chart.
- Each voyage file contains the Waypoints for the voyage and the course between Waypoints can be set to be Rhumb Line, Great Circle or Composite Great Circle sailing.
- Voyage plans can be easily viewed, edited or added to.
- The calculated voyage display shows the course(s) and distances between each pair of Waypoints and the ETA at each Waypoint for an entered speed.
- The calculated voyage plan can be printed or output to a text file.
- The displayed Chart can be printed or saved to bitmap file.

## **PC ENC Shore Navigator for Windows –contd...**

### **VOYAGE MONITORING**

- Display of all AIS vessel icons and prediction Vectors.
- AIS Data Tracks can be saved to file for later replay and guidance, particularly useful for difficult or poorly marked Ports or for investigation.

### **AIS TARGET DISPLAY**

- Can be connected to one of our low cost AIS receivers or to a Class A or Class B AIS transponder via one of the connections provided on the unit or by the unit's Pilot plug ( optional cables available).
- Target selection and display of all details for the selected target.
- Display of list of all AIS Targets on screen.

### **ARPA RADAR TARGET DISPLAY**

- When interfaced to a suitable ARPA Radar, ENC Navigator will display ARPA Radar targets.

### **ELECTRONIC CHART TOOLS**

- Electronic Dividers
- Range Rings
- Overlays manager.
- Multiple overlay plotting positions and comments can be stored and retrieved to and from file.
- 50 pre-defined overlay icons and 50 user-definable icons.
- Zoom in and Out
- Daytime, Dusk and Night Time colours and much more.

### **CHART OVERLAYS**

- Multiple overlays can be made for surveying and Chart customisation etc.
- Wide range of symbols available.
- Draw and add your own Symbols to the library (utility included).
- Instant dropping of overlay symbol at own ship position.
- Create Chart overlay regions to mark "no go" areas, working areas etc.

### **SAILINGS**

- Rhumb line sailings.
- Great Circle sailing.
- Composite Great Circle sailing.
- Find Position. (D.R Position).
- Course & Speed made good.
- Course to Steer.

### **VECTOR CHART (S-57) FUNCTIONS**

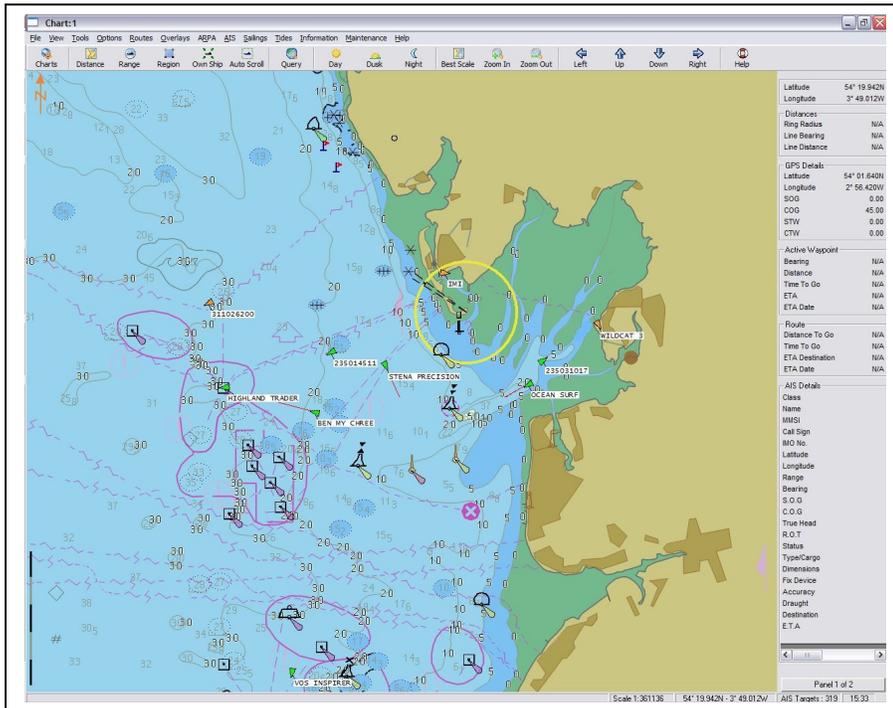
- Store comments for Chart.
- Set own depth safety contour.
- Query all Chart objects.
- Select between base and full data layers, to ease screen clutter as needed.
- Set ENC Chart to Best Scale.

### **TIDAL PREDICTIONS**

- Memory of all data for tidal predictions.
- Selection of any Time zone by the user, irrespective of the Port's zone.
- Inbuilt Tidal data for over 600 European Ports.
- You can add your own Ports for anywhere in the World.
- Calculation of Tidal heights at any entered Port for any date from 1900 to 2090.
- Output of Heights in Metres or Feet.

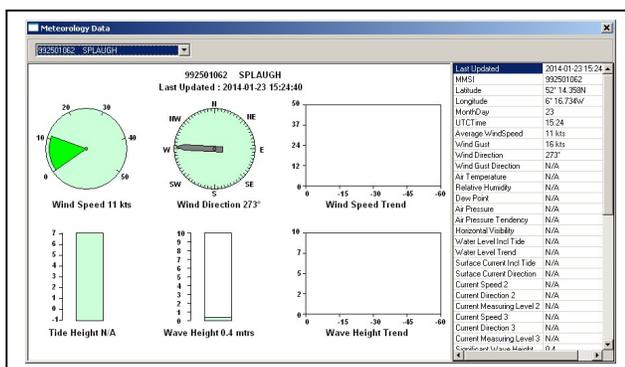
## PC ENC Shore Navigator for Windows –contd...

- Graphic display of the tidal height curve for 2 days with moving cursor and Draught line.
- Real time graphic display of the tidal height curve with moving cursor; automatically updated from the computer's clock and calendar.
- Prediction of High and Low water times and heights for 2-31 days.
- Output of Tidal heights at 6 minute intervals for 2 days.
- Graphic Tidal curves can be printed.
- Text output of Tides can be printed or exported to text file.
- Find nearest Port function & Rapid search function for Port name.



## AIS ATON (AID TO NAVIGATION) DATA

- Receive and display meteorological, wave and tidal data etc from local AIS ATON buoys and beacons.

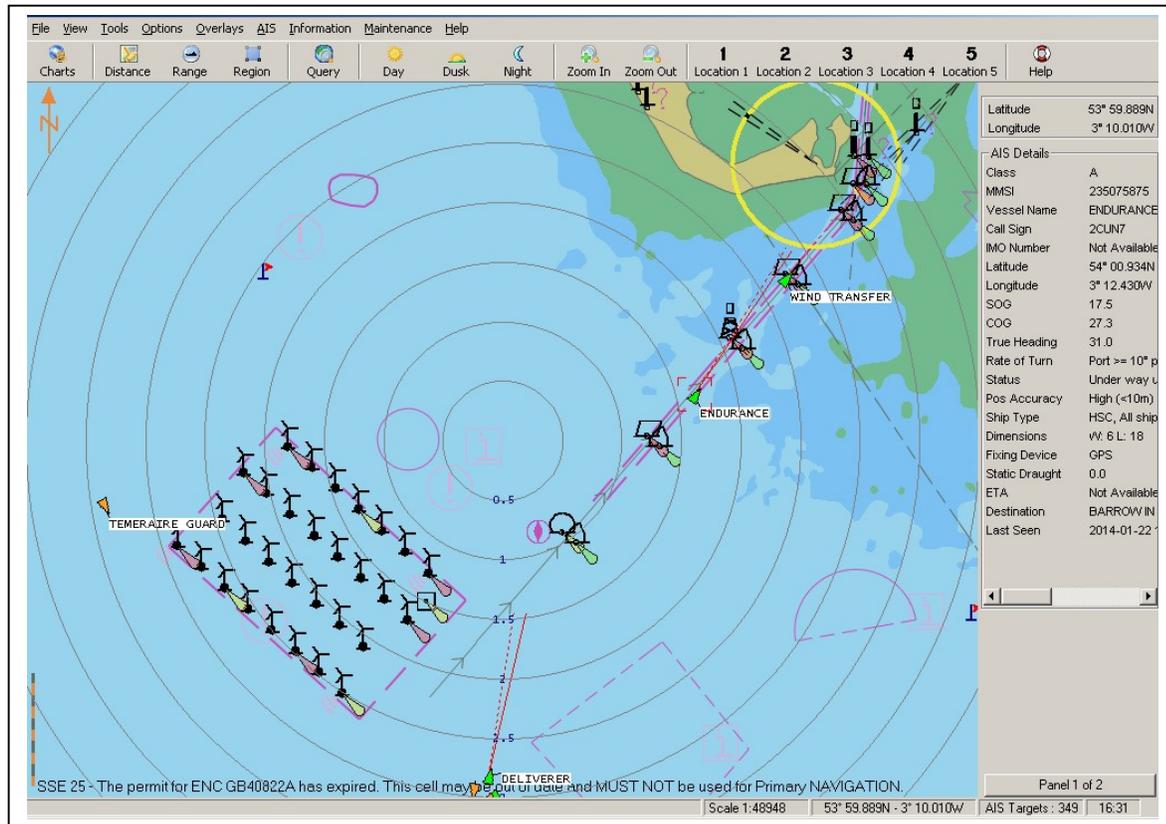


**System Requirements:** PC with Intel i5 or faster processor, 8GB RAM, 10 GB free hard disk space (SSD preferred), mouse and XGA screen. Windows7 or Windows 8 or Windows 10.

## PC ENC AIS Ship Tracker for Windows (Order Code SWPC30)

**PC ENC AIS Ship Tracker for Windows** is a professional and sophisticated but easy to use AIS (Automatic Identification System) data display program for both shore and onboard ship based usage , offering usage of ENC vector charts as a background , such as the well renowned British Admiralty **AVCS** Electronic Charts or standard S-57 Charts. (A worldwide low resolution coastal outline is also included).

ENC AIS Ship Tracker is intended for use onboard ship, at pilot stations, harbours and for office based use. When interfaced to a AIS (Automatic Identification System) receiver or transponder, ENC Ship Tracker will display all AIS targets received together with their details.



Program functions available include:

### **MULTIPLE FIXED LOCATIONS**

- Typically used for shore based or Pilot station usage, create multiple Locations and store up to 5 of them on the toolbar buttons , so that you can move quickly and easily between them by clicking on a button on the toolbar.
- Define your own additional multiple named fixed locations and store them in the internal database.
- Move to any location on the Chart manually , by using your mouse.

### **AIS HARDWARE CONNECTIONS**

- Can be connected to one of our low cost AIS receivers (and most others) or to a Class A or Class B AIS transponder unit via one of the connections provided on the unit or by the unit's Pilot plug ( optional cables available).

## PC ENC AIS Ship Tracker for Windows –contd...

### **AIS TARGET DISPLAY**

- Target selection and display of all details for the selected target.
- Display of list of all AIS Targets on screen.
- Target vector prediction lines, with selectable length in minutes.

### **AIS ATON BUOYS AND MARKS**

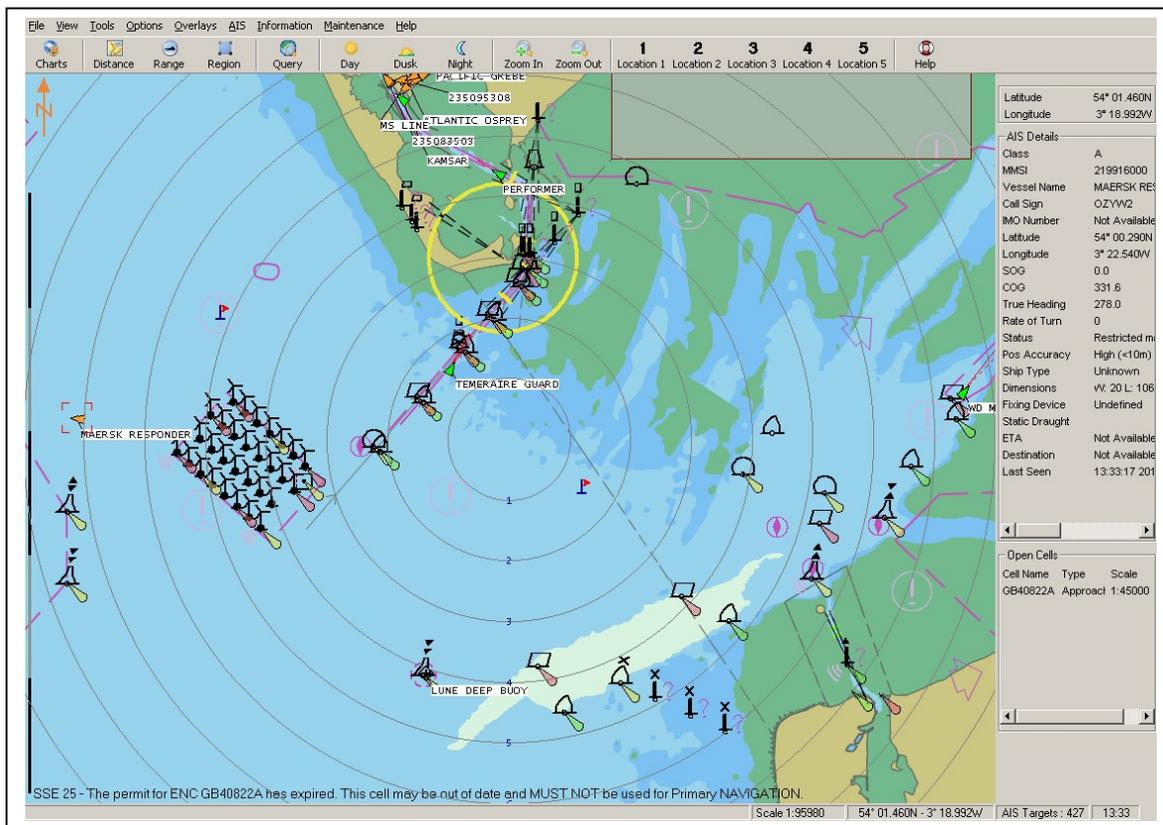
- Receive and display data for AIS equipped Buoys, Lights and Marks.

### **VECTOR CHART (S-57) FUNCTIONS**

- Store comments for each Chart, for easy Chart retrieval.
- Set own depth safety contour.
- Query all Chart objects.
- Select between base and full data layers, to ease screen clutter as needed.

### **CHART TOOLS**

- Range and distance measuring tool .
- Range ring tool.



### **MODES**

- Day, dusk and night-time colour modes, for optimum viewing and minimum strain on eyes.

### **RECORDING AND PLAYBACK**

- All AIS data can be recorded to file and played back at a later date/time.

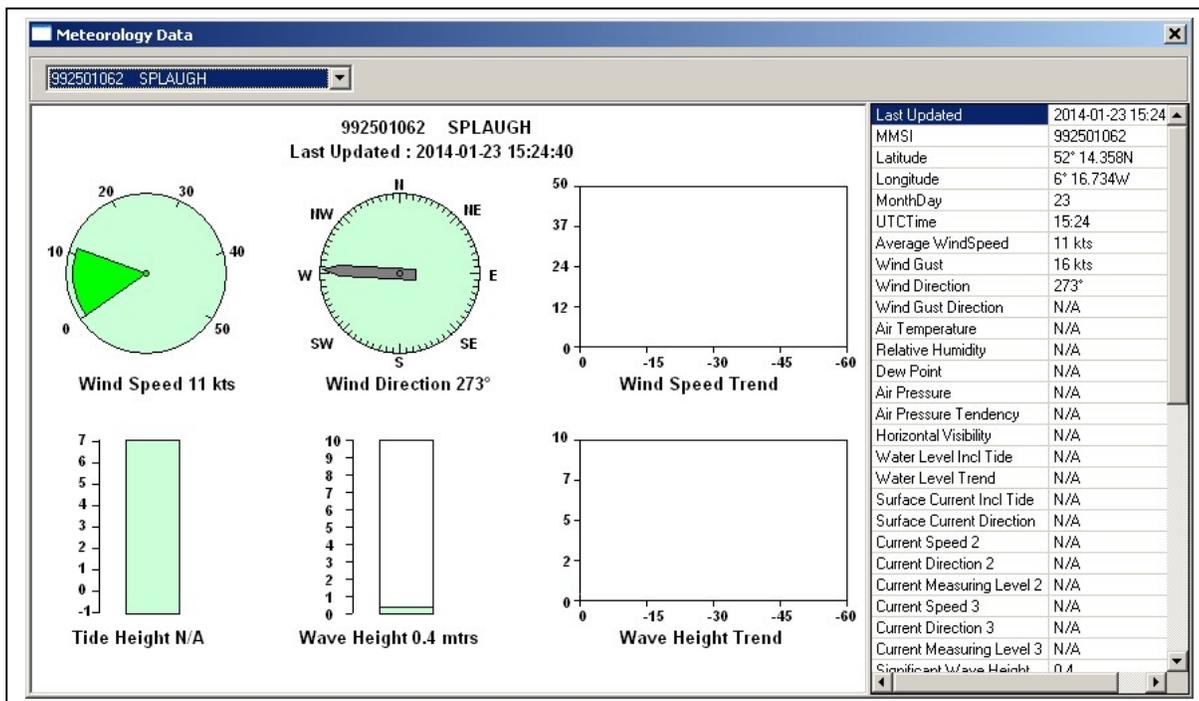
## PC ENC AIS Ship Tracker for Windows –contd...

### CHART OVERLAYS

- Multiple overlays can be made for surveying and Chart customisation etc.
- Wide range of symbols available.
- Draw and add your own Symbols to the library (utility included).
- Instant dropping of overlay symbol at own ship position.
- Create Chart overlay regions to mark “no go” areas, working areas etc.

### AIS ATON (AID TO NAVIGATION) DATA

- Receive and display meteorological, wave and tidal data etc from local AIS ATON buoys and beacons.



**System Requirements:** PC with Intel i5 or faster processor, 8GB RAM, 10 GB free hard disk space (SSD preferred), mouse and XGA screen. Windows7 or Windows 8 or Windows 10.

## **UKHO AVCS ENC Electronic Chart Cells**

AVCS ENC Electronic chart cells (also known as “Vector Charts” ) give a increasing coverage of all major shipping Ports and areas, with new chart cells being produced every week. They are produced to the highest standards by the UKHO (UK Hydrographic Office).

All chart data is sold up to date at time of sale.

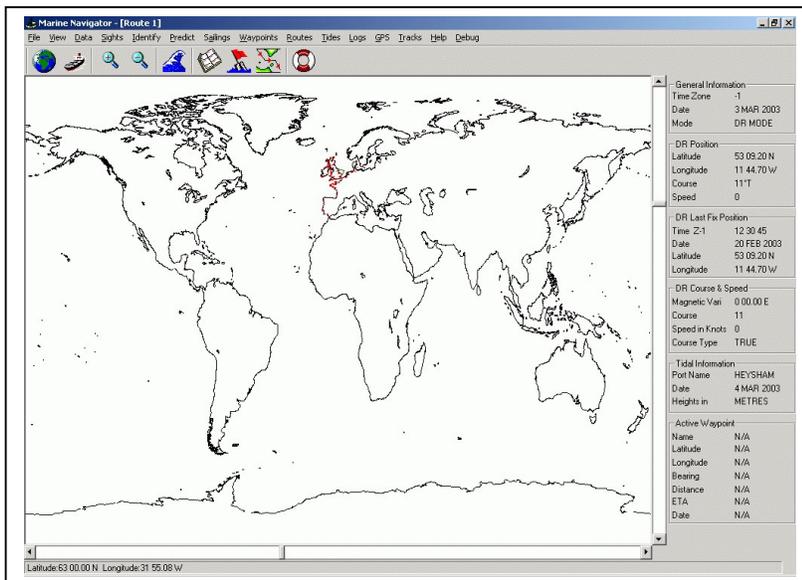
The licence for each AVCS ENC Chart can be set to last 3 months, 6 months, 9 months or 1 year. Included in the licence fee is the delivery of weekly Chart update CDROMs to a UK address. (The update CDROMs can also be sent to a overseas address for a small extra charge).

If you wish to download the contents of the CDROMs and you have a reasonably fast Internet connection, then we can assist you in doing this.

All weekly updates include provision of new charts and new editions where they replace existing chart coverage.

**\*PC MARINE NAVIGATOR for Windows by M. Harrison, Master Mariner.(Order Code SWPC21)**

PC Marine Navigator for Windows offers extensive facilities for route and voyage planning and navigation. Written with the user in mind, *PC Marine Navigator for WINDOWS* give easy selection of functions and extensive on-screen help is available, with user friendly input boxes and buttons.



**Voyage (Passage) Planning:**

- Create, Edit and Store multiple waypoints.
- Create, Edit and Store multiple routes, with comments.
- Create, Edit and Store multiple alerts (reminders) for routes.
- World map outline, for easy visualisation of ship's position, tidal port selection, tracks, stored routes, waypoints and alerts. \*
- The course between waypoints can be set to be Rhumb Line, Great Circle or Composite Great Circle sailing.
- The calculated voyage plan shows the course(s) and distances between each pair of waypoints, the ETA at each waypoint for an entered speed, comments, alerts and much more.
- Screen capture, allowing the plan overview to be printed and/or incorporated in documents.
- The calculated voyage plan can be viewed on screen, printed, or output to a Adobe Acrobat (.pdf) or text file for sharing and e-mail transmission.

**Print Preview**

File | 1/1 | [Navigation icons] | [Search icon]

**Route 1**

| Waypoint Reference | Latitude / Longitude    | Initial Course | Course Type | Notes       | Leg Distance | Distance to go | Distance Sailed | Sailing Time | ETA Time / Date Z-1   |
|--------------------|-------------------------|----------------|-------------|-------------|--------------|----------------|-----------------|--------------|-----------------------|
| 1 W/P 1            | 52 28.00 N<br>2 22.00 E | 24.9°T         | RL          |             | 51.80        | 242.50         | .00             | 5h 11m       |                       |
| 2 W/P 2            | 53 15.00 N<br>2 58.00 E | 10°T           | RL          |             | 47.70        | 190.70         | 51.79           | 4h 46m       | 04 MAR 2003:19:24     |
| 3 W/P 3            | 54 02.00 N<br>3 12.00 E | 286.7°T        | RL          |             | 143.00       | 143.00         | 98.52           | 14h 18m      | 23:10<br>04 MAR 2003: |
| ALERT: 10 nm       | 54 40.13 N<br>0 26.43 W |                |             | Call Master |              |                |                 |              |                       |
| 4 W/P 4            | 54 43.00 N<br>0 43.00 W |                |             |             |              | .00            | 242.47          |              | 12:28<br>05 MAR 2003: |

**PC MARINE NAVIGATOR for Windows continued...**

## **Voyage (Passage) Monitoring:**

- Connection to GPS output for “real time” monitoring of progress along route or operation in DR (Dead Reckoning) mode with manual input of positions.
- Graphical output of ship’s position on chart display.
- Display of ship’s track on chart display.

## **Sailings:**

- Rhumb line sailings.
- Great Circle sailing.
- Composite Great Circle sailing.
- Find position. (D.R Position).
- Course & speed made good.
- Course to steer calculation.
- Built-in compass deviation table.

## **Tidal Predictions:**

- Memory of all data for tidal predictions.
- Selection of any time zone by the user, irrespective of the port's zone.
- Inbuilt tidal data for over 600 European ports.
- Add your own ports for anywhere in the world.
- Calculation of tidal heights at any entered port until the year 2090.
- Output of heights in metres or feet.
- Graphic display of the tidal height curve for 2 days with moving cursor and draught line.
- Real time graphic display of the tidal height curve with moving cursor; automatically updated from the computer’s clock and calendar.
- Prediction of high and low water times and heights for 2-31 days.
- Output of tidal heights at 6 minute intervals for 2 days.
- Graphic tidal curves can be printed.
- Text output of tides can be printed or exported to text file.
- Find nearest port function & rapid search function for port name.

## **Celestial Navigation:**

- Sight reduction with all corrections automatically applied.
- Fix for any number of sights and running on of sights for stored course & speed.
- Automatic position update.
- Memory of all relevant voyage data.
- Identification of stars and planets.
- Prediction of co-ordinates for any body.
- "ASTROPLAN": Prediction of all bodies above the horizon and LHA Aries for any time.
- "Graphic Sky": Graphical display of all bodies above the horizon at any time.
- Times of twilights & Sun meridian passage.
- Moon Phase, percentage illuminated, times of rising and setting and meridian passage.
- Compass errors.
- Built-In Almanac for the Sun, Moon, Planets and all the navigational stars until the year 2100.

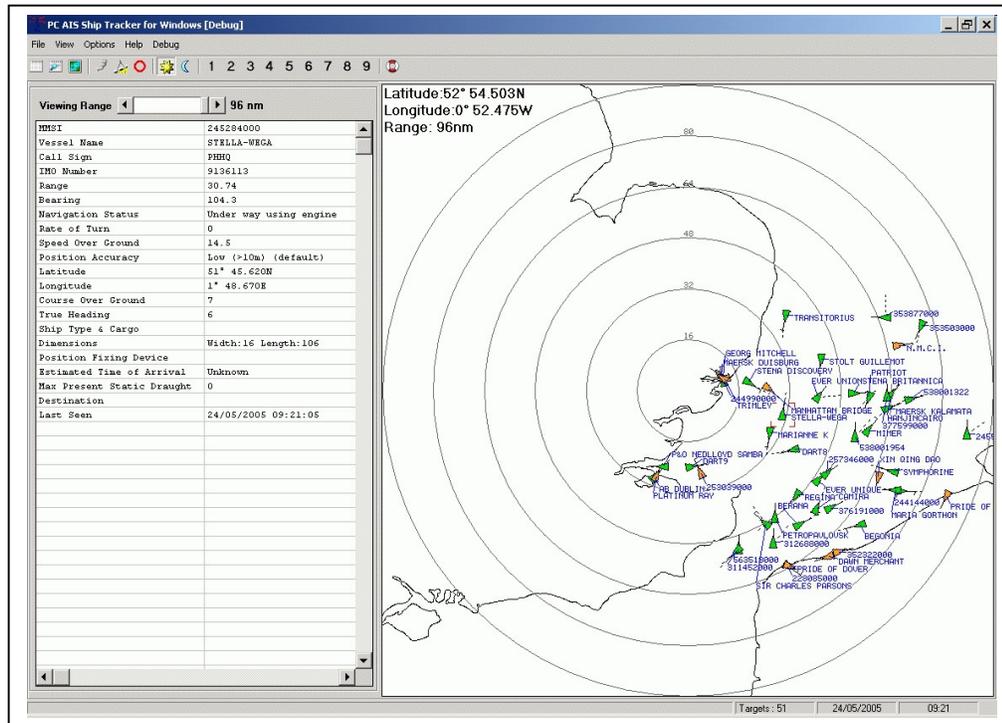
\*(Please note that the world map is not suitable for navigation, we can offer our Chartplanner and Seamaster electronic chart products for full on-screen navigational use).

**Minimum System Requirements:** IBM PC compatible computer with Pentium 300Mhz or faster processor, 1GB RAM, 400 MB (0.5 GB) free space on hard disk, mouse and VGA screen. Windows 7 or Windows 8 or Windows 10.

## PC AIS SHIP TRACKER for Windows (Order Code SWPC25)

**PC AIS Ship Tracker for Windows** is a sophisticated but easy to use and reasonably priced system for tracking ships of all sizes fitted with AIS (Automatic Identification System) transponders, both AIS Class A, now required on all sizeable vessels, and AIS Class B, now being fitted to smaller vessels.

### Radar Type Display (Text and Radar displays both available in the program)



**PC AIS Ship Tracker for Windows** tracks and gives details of all AIS equipped vessels within range (typically up to 25 nautical miles for normal antenna heights) and can be used in either a fixed location (for Harbour or Port Authority use for example) or in mobile mode onboard a Ship or small craft. Either mode is selectable from the easy to use menus.

### **PC AIS Ship Tracker for Windows includes:**

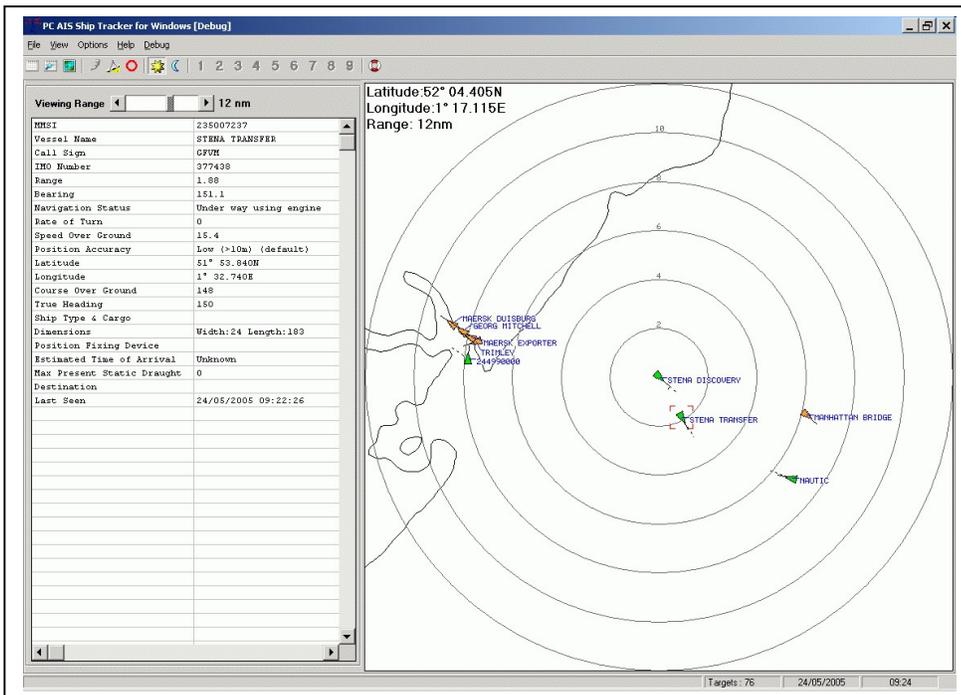
- Real-time output of AIS equipped vessel positions and details on a radar style display with selectable range from 0.5 to 96 nautical miles, using IMO AIS symbols.
- Real-time output of vessel positions and details on a text display.
- Real-time output and display of AIS equipped navigation marks.
- Real-time output and display of safety related and text messages.
- Coastal outline background included for radar display, with world-wide coastal database included in the software so that the background is automatically displayed.
- Use your own, multiple, bitmap chart backgrounds, ideal for VTS, Pilot stations and Coastguards.
- Record and play back AIS data.
- The graphic display of vessel vectors, with selectable length.
- Text and graphic display of multiple vessel details:
- MMSI, Name, Callsign, Range and Bearing, Navigational status, Rate of turn, Course and Speed, Position accuracy, Ship type and Cargo, Dimensions, ETA, Draught, Destination.
- The ability to select and view vessel details in graphic and table forms.
- Select any vessel as “own” vessel to get a “bridge eye view”.
- Interfacing to AIS receivers, GPS receiver outputs (when used onboard) and Pilot plug AIS outputs.
- Day and Night Modes.
- Alarm ring, with selectable range.
- Optional “speed trap” function – useful for harbour authorities and when anchored.

# PC AIS SHIP TRACKER for Windows contd....

## Text View of Vessel Details

| MMSI     | Vessel            | Call Sign | Range | Bearing | Latitude     | Longitude   | COG   | SOG   | Status                        |
|----------|-------------------|-----------|-------|---------|--------------|-------------|-------|-------|-------------------------------|
| 20895800 | RIPAZI            | P9WV4     | 10.73 | 145.5   | 51° 48.610 N | 1° 29.840 E | 360.0 | 10.23 | At anchor                     |
| 24480000 | VISSERSBANK       | FPH       | 80.15 | 148.3   | 51° 38.940 N | 2° 51.370 E | 255.7 | 10.7  | Moved                         |
| 22001250 | ARCO ARUN         | GNN       | 19.37 | 088.1   | 51° 55.735 N | 1° 51.085 E | 189.7 | 13.4  | Under way using engine        |
| 25758000 | AUTOSUN           | LAOT5     | 24.25 | 142.5   | 51° 39.220 N | 1° 43.880 E | 209   | 8.9   | Under way using engine        |
| 22892000 | ALTHEA            | SVPP      | 14.13 | 107.6   | 51° 54.152 N | 1° 41.903 E | 1     | 0     | Under way using engine        |
| 22006100 | CORNELIA MAERSK   | OWW/S2    | 1.70  | 229.7   | 51° 57.350 N | 1° 17.890 E | 298   | 1.4   | Under way using engine        |
| 25171000 | CONCORDE          | LZCN      | 3.80  | 246.0   | 51° 56.300 N | 1° 14.395 E | 324   | 0     | Under way using engine        |
| 35639100 | EVER DEVELOP      | 3LFB      | 23.86 | 145.7   | 51° 38.420 N | 1° 41.240 E | 181   | 19.7  | Under way using engine        |
| 23622000 | BREMER ANNA       | ZDGC2     | 15.30 | 175.5   | 51° 42.587 N | 1° 22.018 E | 225   | 11.9  | Under way using engine        |
| 63011080 | HANLIN LISBON     | ABRV2     | 1.80  | 234.4   | 51° 57.531 N | 1° 17.308 E | 124   | 0     | Under way using engine        |
| 24534000 | STENA HOLLANDICA  | PFBL      | 61.74 | 085.3   | 52° 02.845 N | 2° 59.970 E | 276   | 21    | Under way using engine        |
| 22012000 | OLIVA MAERSK      | DXK02     | 21.15 | 080.1   | 52° 02.081 N | 1° 53.812 E | 28.9  | 21.5  | Under way using engine        |
| 25953000 | LYSIBIS           | LJLN3     | 18.35 | 097.6   | 51° 56.025 N | 1° 48.478 E | 233   | 11.2  | Under way using engine        |
| 2320025  | VTS HARWICH       |           | 2.29  | 224.3   | 51° 56.811 N | 1° 17.395 E | 0     | 0     | Not defined (default)         |
| 24442000 | LELIEGRICHT       | PFPG      | 46.92 | 094.8   | 51° 54.500 N | 2° 35.770 E | 226   | 14.8  | Under way using engine        |
| 35439100 | ANGLIAN WAY       | H9KQ      | 8.20  | 114.5   | 51° 55.041 N | 1° 32.085 E | 325.5 | 13    | Under way using engine        |
| 115906   |                   |           | 28.69 | 163.8   | 51° 23.944 N | 1° 33.322 E | 257   | 18.3  | Under way using engine        |
| 35103000 | IOLCOS ABILITY    | 3CNV9     | 95.57 | 085.5   | 52° 02.525 N | 3° 07.725 E | 266   | 12    | Under way using engine        |
| 63090177 | KARHAGD           | ELQW4     | 2.03  | 194.2   | 51° 56.478 N | 1° 18.183 E | 148.8 | 1     | Under way using engine        |
| 21121810 | KARO              | DGND      | 1.82  | 135.5   | 51° 58.031 N | 1° 18.157 E | 360   | 0     | Under way using engine        |
| 35412000 | AQUARIUS ACE      | 3PHB8     | 81.77 | 114.6   | 51° 24.452 N | 3° 19.658 E | 263.2 | 17.1  | Under way using engine (Lost) |
| 24851700 | KARL LEONHARDT    | 9HHU6     | 50.68 | 090.3   | 51° 58.188 N | 2° 42.152 E | 223.5 | 11.7  | Under way using engine (Lost) |
| 23572100 | NORTHUMBERLAND    | MAVNB     | 57.96 | 080.2   | 52° 27.021 N | 2° 41.470 E | 353.3 | 13.3  | Under way using engine        |
| 24735000 | SVEVA             | IBEU      | 12.91 | 111.1   | 51° 53.782 N | 1° 38.505 E | 195.2 | 1     | At anchor                     |
| 30188000 | ALLEGORAS CARRIER | CBF4      | 47.54 | 083.5   | 51° 55.507 N | 2° 36.914 E | 224   | 21.6  | Under way using engine        |
| 30604100 | LINGGAS           | FNZC      | 50.01 | 084.5   | 51° 54.525 N | 2° 40.804 E | 217.5 | 14.8  | Under way using engine        |
| 23284700 | THY PATRICIA      | GBTH      | 2.42  | 223.0   | 51° 56.860 N | 1° 17.030 E | 317   | 0     | Moved                         |
| 35030200 |                   |           | 95.25 | 123.6   | 51° 21.746 N | 2° 48.846 E | 270.4 | 17    | Under way using engine        |
| 22536300 |                   |           | 51.00 | 014.5   | 52° 47.819 N | 1° 40.452 E | 327   | 10.6  | Under way using engine        |
| 25111200 |                   |           | 82.50 | 114.3   | 51° 24.477 N | 3° 21.178 E | 262   | 14.5  | Under way using engine        |
| 27729500 |                   |           | 1.54  | 244.1   | 51° 56.305 N | 1° 14.020 E | 3     | 1     | Moved                         |
| 31025800 | TOR HERINGA       | LYOZ      | 78.37 | 118.1   | 51° 21.485 N | 3° 11.328 E | 277.4 | 2.8   | Under way using engine        |
| 31151400 |                   |           | 76.13 | 084.6   | 51° 52.301 N | 3° 22.940 E | 226   | 13.2  | Under way using engine        |
| 22001440 |                   |           | 24.36 | 084.4   | 52° 12.262 N | 1° 55.512 E | 194   | 11.7  | Under way using engine        |
| 55432600 |                   |           | 58.45 | 080.3   | 51° 58.180 N | 2° 54.800 E | 48    | 20.7  | Under way using engine        |
| 63011531 | ALAM BITARA       | SMEA7     | 68.87 | 081.1   | 52° 03.170 N | 3° 11.540 E | 278   | 13.6  | Under way using engine        |
| 30428500 |                   |           | 53.13 | 071.5   | 52° 15.275 N | 2° 42.000 E | 289   | 15.9  | Under way using engine        |
| 24438700 |                   |           | 44.86 | 089.1   | 51° 51.344 N | 2° 31.738 E | 220   | 15.4  | Under way using engine        |
| 24438700 |                   |           | 78.90 | 118.9   | 51° 20.336 N | 3° 11.267 E | 36    | 0     | Under way using engine        |

## Variable Range Scale

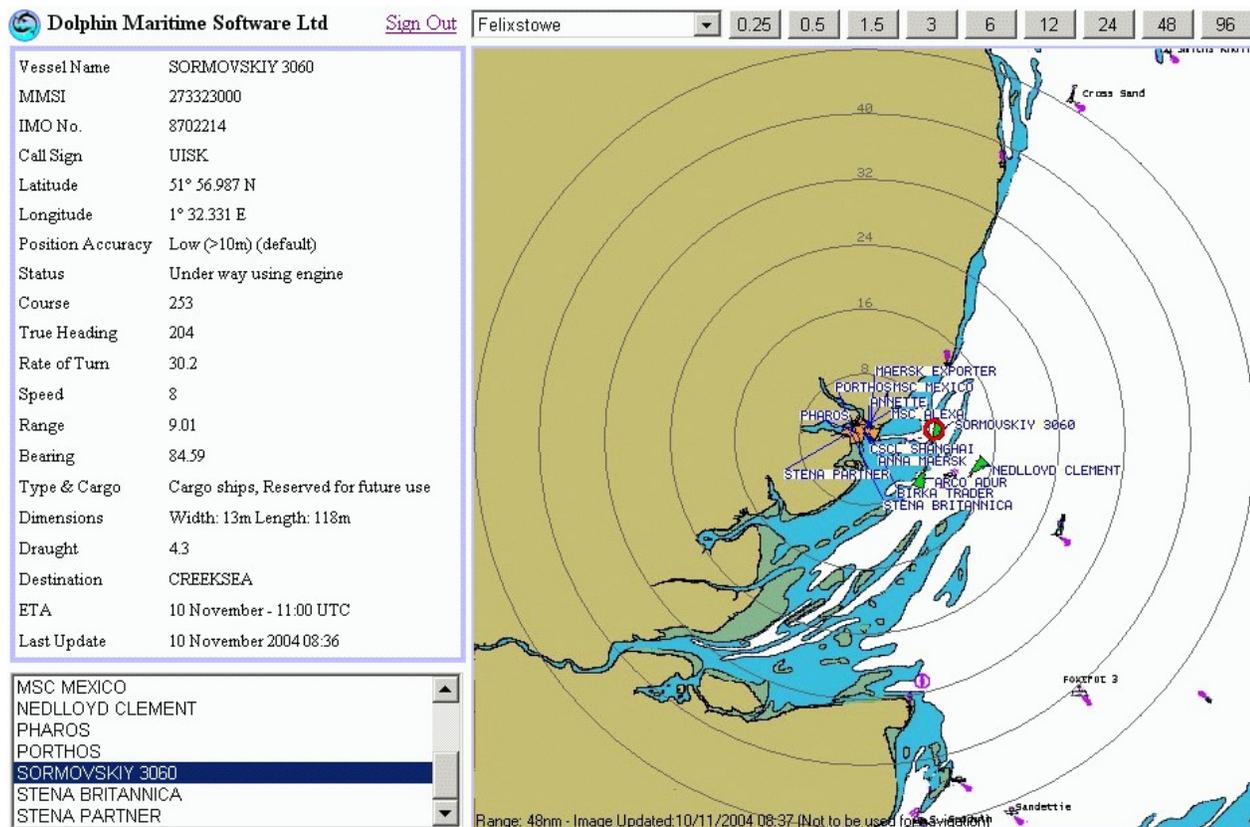


**Minimum PC System Requirements:** PC with 500 Mhz Pentium processor, Windows 7 or Windows 8 or Windows 10. 800\*600 colour VGA screen, keyboard and pointing device.  
(We can supply a complete package, including Software, AIS receiver and Aerial (Antenna) if required, for a complete “one stop” solution).

## SECURE NETWORK AIS SHIP TRACKER (Order Code SWPC27)

**Secure Network AIS Ship Tracker** is a secure and easy to use ship tracking system that allows you to securely distribute your AIS data over a computer network and / or the world wide web. It requires only a standard web browser on each user's computer. This reasonably priced system will track ships of all sizes which are fitted with AIS (Automatic Identification System) transponders, now required on all sizeable vessels. Access to the system by each of the users is secure and controlled, so it is a very suitable system to aid in VTS (Vessel Traffic Systems) for Ports, Harbours, Pilotage and Harbour services which need to comply with the ISPS (International Ship and Port Security) code. The system can be purchased outright or we can arrange for the harbour to be quickly connected to a existing secure server, for a no fuss and low cost installation.

### Radar Type Display, from multiple locations and multiple receivers



**Secure Network AIS Ship Tracker** tracks and gives details of all AIS equipped vessels within range of each receiver (typically 25 to 40 nautical miles for a antenna height of 20 to 30 metres, using a normal antenna). Multiple AIS receivers (using international and local AIS frequencies) and multiple locations can be easily accommodated, for full coverage of large areas. AIS receivers can be locally connected to the server or by broadband TCP/IP, Wireless (WiFi or DataModem) , leased line or dialup modem.

### **Secure Network AIS Ship Tracker includes:**

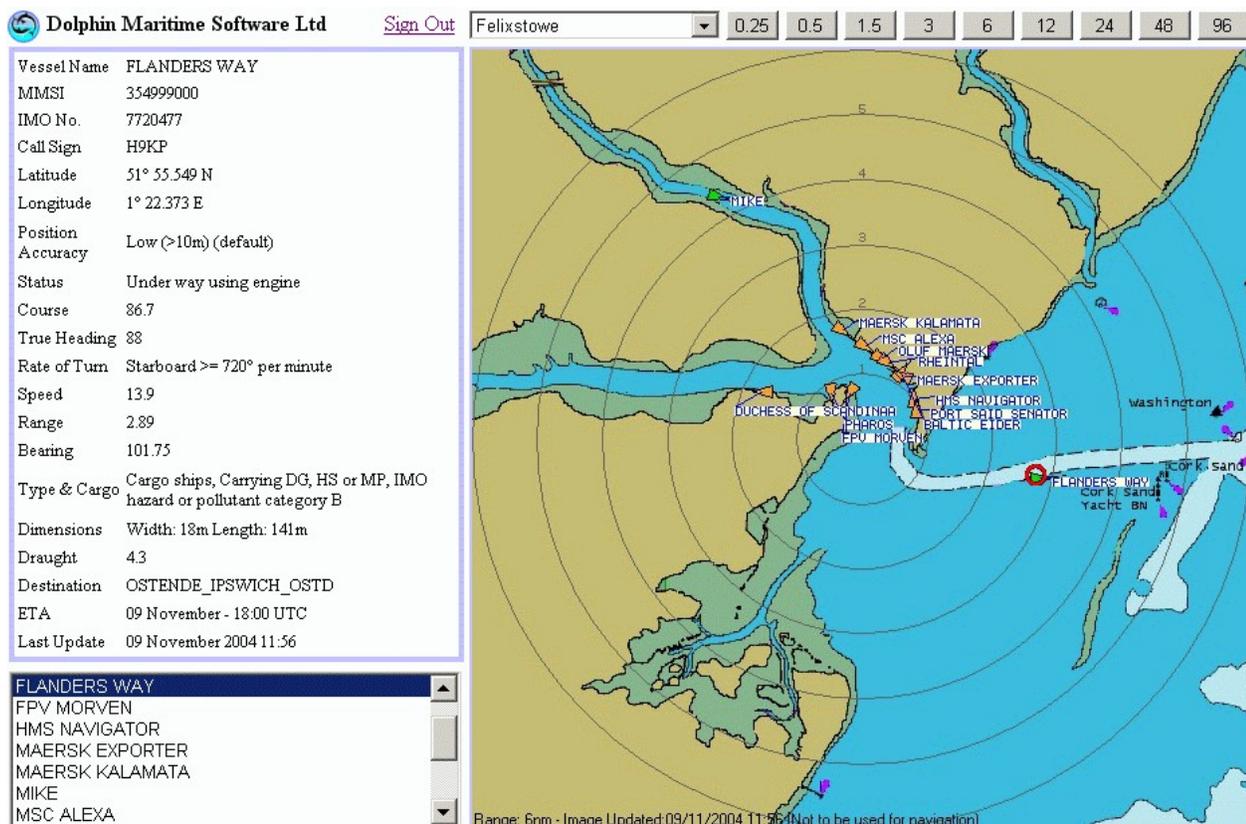
- **Real-time output of vessel positions and details on a radar style display with selectable range from 0.5 to 96 nautical miles.**
- **Real-time output of vessel positions and details on a radar style display.**
- **Accurate background included for radar display.**
- **The graphic display of all vessel vectors and names.**
- **Interfacing to AIS receivers, both local and remote, by multiple methods.**
- **Easy and secure distribution of AIS data across the world wide web or local network.**

- Secure access, in line with the ISPS code for Ports, Harbourmasters, Vessels and other maritime organisations.

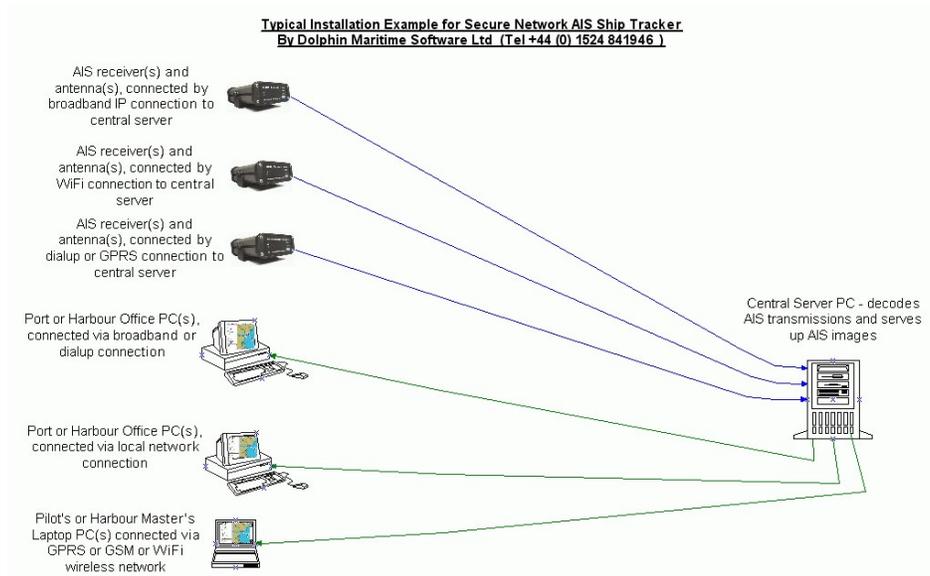
**SECURE NETWORK AIS SHIP TRACKER contd....**

- Secure access allows controlled access by Ship's Pilots and Harbourmasters etc from home, office or using a mobile computer fitted with GSM or GPRS wireless card, for maximum efficiency in Port and Harbour operations.
- Requires only a standard browser to view; suitable for PC, Mac, Linux, Unix etc. No extra software is needed.
- Text and graphic display of multiple vessel details:
  - MMSI Number
  - IMO Number
  - Name
  - Callsign
  - Range and Bearing
  - Navigational status.
  - Rate of turn.
  - Course and Speed.
  - Position accuracy.
  - Ship type and Cargo.
  - Dimensions.
  - ETA
  - Draught.
  - Destination.

**Detailed view of chosen location(s)**



**Example system diagram**



**Hosting**

We can arrange to connect your AIS receivers to a secure, guarded, Server via your broadband internet connection(s) and then you can simply access the displays of the data using a standard browser and a internet or network connection. Alternatively, we can supply the necessary software so that you can set up Secure Network AIS Ship Tracker on your own local Server.

- We can customise the software to your exact requirements if you require us to do so. Including more detailed coastal backgrounds, customised calculation of ETA etc...

**Hardware (not included with the software)**

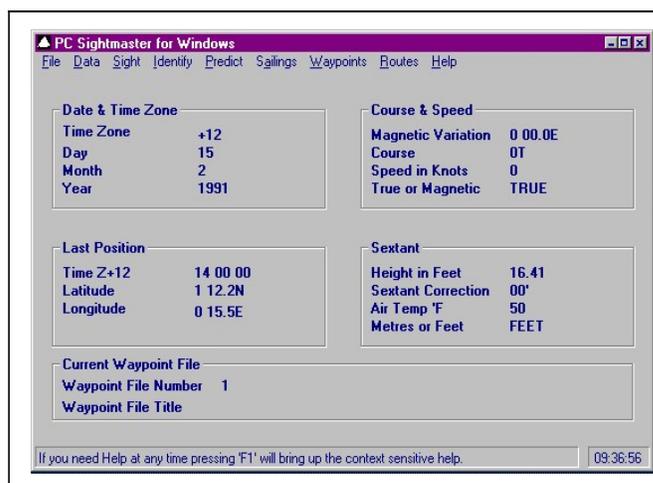
We can supply a complete package, including Software, AIS receivers (see below) and Antennas (Aerials ) if required, for a complete “one stop” low cost solution. We also offer expert advice on Antenna selection and equipment installation. AIS receivers can be locally connected to the server by broadband TCP/IP, Wireless (WiFi or DataModem) , leased line or dialup modem or any combination of these, for ultimate flexibility. We can also advise on or supply solar power kits for all Latitudes, for easy installation of the equipment at optimum height and position to give maximum range.



AIS Receiver (not included with software)  
Electrical: Power supply range: 9 - 30 Volts DC  
(Suitable for 12 or 24v systems)  
Power consumption : 400mW  
Physical: Length: 140mm, Width: 120mm,  
Height: 50mm Weight: 600g

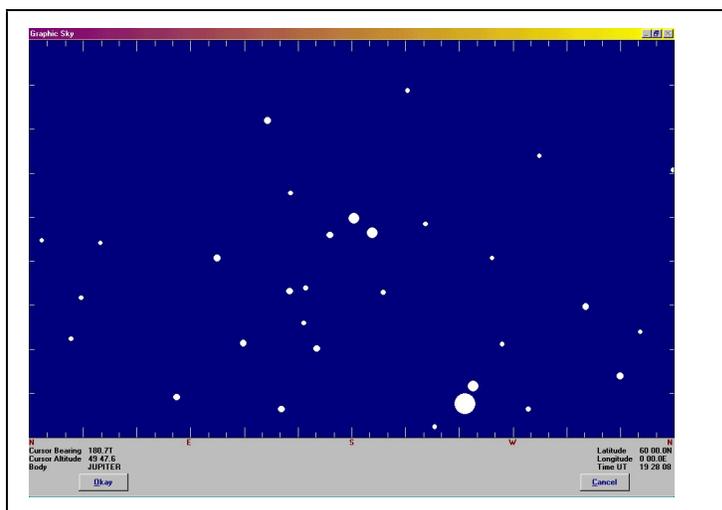
**\*PC SIGHTMASTER for Windows by M. Harrison, Master Mariner.(Order Code SWPC10)**

**Clear data display**



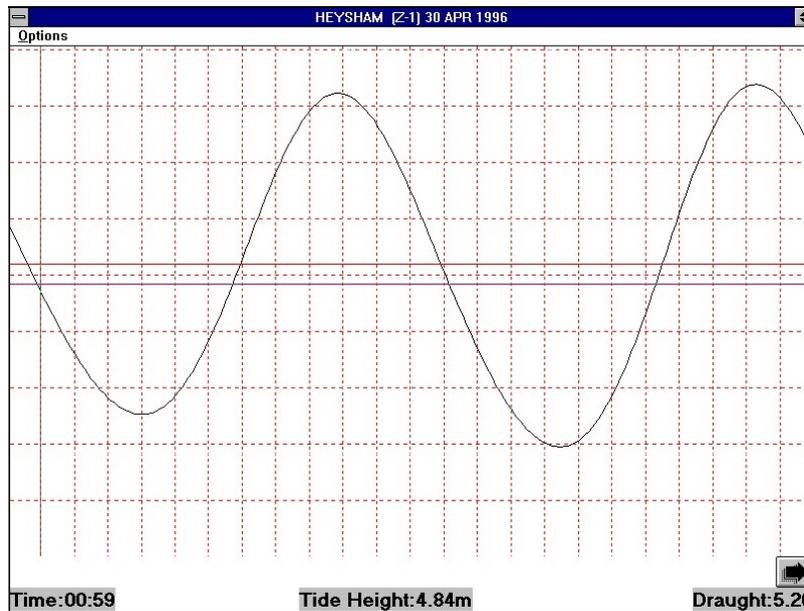
An advanced but simple to use ocean navigation program for the IBM PC and compatibles running Windows. Written with the user in mind, the program gives easy selection of functions and extensive on-screen help, with user friendly input boxes and buttons. It includes: Memory of all your data for navigation, including course, speed, last position, height of eye, past sights, waypoints, routes, date. Courses & bearings in degrees magnetic or true, height of eye in feet or metres (all selectable). **Sight reduction** with all corrections automatically applied; just select the body & enter the time. **Inbuilt almanac** accurate within 1.0' of arc for the years 1900 to 2100. All astro' bodies, comprising 59 stars, the Sun, the Moon, Venus, Mars, Jupiter & Saturn are in the almanac. Prediction of co-ordinates for any body, including **graphic sky, astroplan, Sun & twilights, single body. Graphic fix display** from any two or more sights. The **identify** function gives the Star or Planet's name from estimated bearing & altitude. **Great circle sailing** with selectable interval for plotting. **Multiple sailing functions** with Mercator sailing or plane sailing selected automatically. **Storage of waypoints** by number & descriptive name. Multiple waypoint files for different areas. **Storage of routes** by number & descriptive name. All functions include automatic DR position update. Also includes **compass correction** and **export of Waypoints and routes** to plain text file for inclusion in other programs. Minimum requirements: Windows 7 or Windows 8 or Windows 10 and 1.2MB free hard disk space.

**Graphic Sky Display of predicted bodies**



## Marine Programs for Windows PCs contd...

\*PC VOYAGEMASTER for Windows by M. Harrison, Master Mariner. (Order Code SWPC11)



An advanced but simple to use voyage planning and tidal prediction program for the IBM PC and compatibles running Windows. Written with the user in mind, *VOYAGEMASTER for WINDOWS* give easy selection of functions and extensive on-screen help is available, with user friendly input boxes and buttons. PC Voyagemaster for Windows includes the following:

### Voyage (Passage) Planning:

Creation of multiple voyage plan files, with comments. Each voyage file contains the waypoints for the voyage and the course between Waypoints can be set to be Rhumb Line, Great Circle or Composite Great Circle sailing. voyage files can be easily viewed, edited or added to. The calculated voyage display shows the course(s) and distances between each pair of waypoints and the ETA at each waypoint for an entered speed. The calculated voyage plan can be printed or output to a text file. The calculated voyage plan shows the nearest stored tidal port in the program to the end of the voyage. Voyage plans can be printed or exported in PC Sightmaster for Windows or PC Sightmaster for DOS format.

### Sailings:

Rhumb line sailings. Great Circle sailing. Composite Great Circle sailing. Find position. (D.R Position). Course & speed made good. Course to steer.

### Tidal predictions:

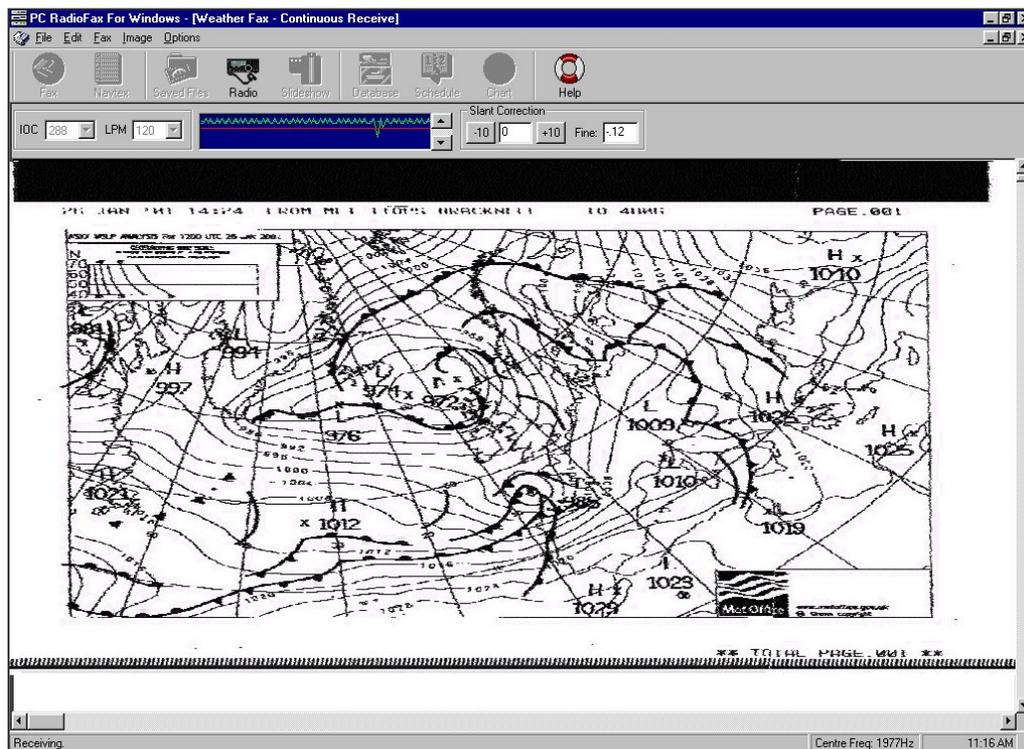
Memory of all data for tidal predictions. Selection of any time zone by the user, irrespective of the port's zone. Inbuilt tidal data for over 600 European ports. You can add your own ports for anywhere in the world. Calculation of tidal heights at any entered port for any date from 1900 to 2090. Output of heights in metres or feet. Graphic display of the tidal height curve for 2 days with moving cursor and draught line. Real time graphic display of the tidal height curve with moving cursor; automatically updated from the computer's clock and calendar. Prediction of high and low water times and heights for 2-31 days. Output of tidal heights at 6 minute intervals for 2 days. Graphic tidal curves can be printed. Text output of tides can be printed or exported to text file. Find nearest port function & rapid search function for port name.

Minimum requirements: Windows 7 or Windows 8 or Windows 10.  
1.2MB free hard disk space.

## Marine Programs for Windows PCs contd...

**PC Radiofax for Windows (Order Code SWPC20)** is a sophisticated but easy to use program for reception of weather fax, NAVTEX, RTTY and morse messages when connected to a SSB ( Single Sideband) radio receiver. The following functions are available in the program:

- Radio weather fax map and text decoding and display.
- NAVTEX radio signal decoding and display.
- RTTY radio signal decoding and display.
- Morse code radio signal decoding and display.
- Recording of voice radio signals (weather forecasts etc).
- Scheduler for automatic reception, decoding and recording of radio signals.
- Slide show for playback of received weather maps and other images.
- Database containing all common radio stations and transmissions likely to be required.
- World map for "point and click" selection and display of stations and transmissions.
- Remote control of ICOM PCR1000, ICOM R75 and Lowe 150 SSB radio receivers, with on-screen control of frequency, automatic application of SSB offset and control of receiver volume (where supported).



Supplied complete with 1.2 metres audio cable to connect your SSB radio to your soundcard.

Minimum requirements: Windows 7 or Windows 8 or Windows 10 and 3MB free hard disk space with Pentium 166Mhz or faster processor, floppy disk drive, Windows supported soundcard. (1 free serial port required if remote control of a suitable Radio Receiver is desired).

## Marine Programs for Windows PCs contd...

\*PC STABILITY,DRAFT & TRIM for Windows by M. Harrison, Master Mariner (Order Code SWPC13)

TESTSHIP - VOYAGE 1

Weights Intact Stability Dock Density

SHIP'S NAME: TESTSHIP VOYAGE NO: 1

DATE: Tuesday-11-Mar-1997 TIME: 21:47:19

| ITEM      | WEIGHT | FREE SURFACE | VERTICAL MMT | LONGITUDL MMT |
|-----------|--------|--------------|--------------|---------------|
| LIGHTSHIP | 1500   | 0            | 7500         | 33750         |
| CARGO     | 220    | 0            | 612          | 5084          |
| TANKS     | 85     | 80           | 158.1        | 663           |
| STORES    | 0      | 0            | 0            | 0             |
| TOTALS    | 1805   | 80           | 8270.1       | 39497         |

FREE SURFACE CORR: .04m FWD MARKS DRAFT: 3.43m

FLUID KG: 4.63m MID MARKS DRAFT: 3.61m

MAX KG: 5.46m AFT MARKS DRAFT: 3.76m

KM: 15.59m TRIM: -.34m BY STERN

FLUID KG: 4.63m DOCK DENSITY: 1025

STATUS: SAFE

OK Cancel PRINT EXPORT

A general purpose program running under Windows, to calculate stability, draft & trim for single hull merchant ships, both cargo and tankers. Up to 99 ships, with up to 999 voyage records for each, may be stored using the program. Once entered, ship's data and voyage records are saved to disk and may be recalled from an easy to use menu at any time. For each ship the program can store up to a maximum of 99 of each of the following;

Cargo spaces

Stores spaces

Tank spaces

Draft & displacement data points

Draft & Safety criteria (Deadweight Moments, Maximum KG, Minimum GM) points

Draft & KM data points

Draft & LCF data points

Draft & LCB data points

Draft and trimming moment data points.

The program includes display and calculation of; weights, displacement, vertical moments, longitudinal moments, Free surface, free surface correction, fluid KG, mean draft, fluid GM, deadweight moments, compliance with safety data, intact stability (GZ and areas under GZ curve), trim & forward and aft drafts. A print option gives printer output of the voyage stability record, cargo record and tank record and intact stability curve.

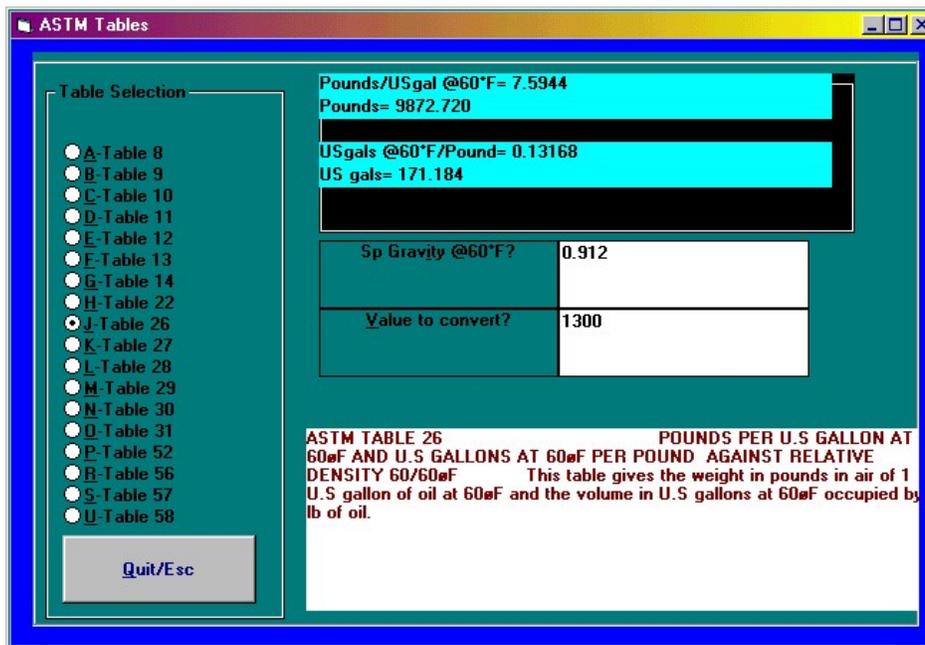
Minimum requirements: Windows 7 or Windows 8 or Windows 10.

2MB free hard disk space.

## Marine Programs for Windows PCs contd...

### \* PC OILSURVEY for Windows by M Shoolbraid, Master Mariner (Order Code SWPC16)

**PC OILSURVEY for Windows** is a user-friendly oil and chemical cargo calculation program for marine surveyors and ships' officers. **PC OILSURVEY for Windows** is designed to make calculations quickly and with the minimum of effort and you can customise tank layouts for one ship or several ships. PC OILSURVEY for Windows offers the following functions. OILCALC: oil cargo calculation for crude, product or lube oils using a variety of different units of input. Integrated ullage interpolation, temperature conversions, wedge calculation and tables 3/21/51 API/SG/Density conversion. With an automatic tank naming facility and tank layout storage. All data can be stored to disk. Reports can be sent to printer or file or edited in any standard wordprocessor program. CHEMCALC: Chemical cargo calculation with an automatic tank naming facility and tank layout storage; all data can be stored to disk for later retrieval. Reports can be sent to printer or file. Integrated ullage interpolation, temperature conversions and wedge calculation.



**PIPELINE:** Pipeline capacity calculation with standard size table. **ULLAGE:** Table interpolator for both ullage/trim and ullage only tables. **WEDGE:** Cargo residue calculation. **VEF:** Vessel Experience Factor calculation and storage to disk. **ROOF:** Calculation of API, specific gravity, density for shore tank floating roof calculation. **UTILITIES:** Storage of your name, ship's name etc to disk for automatic inclusion in printed reports produced by the program. Sample label printing. **ASTM Tables 5,23,53;** Correction of API, specific gravity, density at observed temp to standard temp for crude (A), products (B) and lube (D) oils. Optional hydrometer correction also featured. **ASTM Tables 6,24,54;** Computation of volume correction factor for crude, products and lube oils. Using API@60 F, specific gravity @60F, density@15C. **ASTM Table 56;** vacuum to air weight correction factor. **CONVERSION** of density between API@60F, specific gravity @60F, density @15C. **CONVERSION** of API@60F to pounds per USgal @60F and conversion between pounds and US gallons. **COMPREHENSIVE** conversion of temperatures, lengths, areas, volumes and weights.

Minimum requirements: Windows 7 or Windows 8 or Windows 10. 2MB free hard disk space.

## Marine Programs for Windows PCs contd...

**\*PC DRAFT SURVEY for WINDOWS by M. Shoolbraid, Master Mariner (Order Code SWPC17)**

### Easy operation & User-Friendly prompts

| Observed Data and Perpendicular Details (Metres)   |      |             |      |
|--|------|-------------|------|
| 1-Port Fwd?  | 6.15 | 2-Stbd Fwd? | 6.16 |
| 3-Port Mid?  | 6.55 | 4-Stbd Mid? | 6.55 |
| 5-Port Aft?  | 6.97 | 6-Stbd Aft? | 6.98 |
| <input type="text" value="DmF to EPP: (-) if aft? -0.690"/> <input type="text" value="DmM to MID: (-) if aft? -1.000"/> <input type="text" value="DmA to APP: (-) if aft? 6.100"/> |      |             |      |
| <input type="text" value="Length between Perps? 140.000"/> <input type="text" value="Keel Thickness Corr.? 0.0000"/>   |      |             |      |
| <input type="text" value="Dock Water Density? 1.0"/> <input type="text" value="Hydrostatic Density? 1.02500"/>   |      |             |      |
| <input type="checkbox"/> Use Mean of Mean for Calculation  |      |             |      |

|                 |         |
|-----------------|---------|
| Len.Btwn.Marks  | 133.210 |
| Fwd mean        | 6.1550  |
| Perp correction | -0.0042 |
| True Fwd Draft  | 6.1508  |
| Midship mean    | 6.5500  |
| Perp correction | -0.0062 |
| True Mid Draft  | 6.5438  |
| Aft mean        | 6.9750  |
| Perp correction | 0.0375  |
| True Aft Draft  | 7.0125  |
| Apparent Trim   | 0.8200  |
| True trim       | 0.8617  |
| Hogging         | 0.0378  |
| Mean Fore & Aft | 6.5817  |
| Mean of Means   | 6.5627  |
| Quarter mean    | 6.5533  |
| Keel correction | 0.0000  |
| COR.QM DRAFT    | 6.5533  |

***PC DRAFT SURVEY for WINDOWS*** is a user-friendly draught survey cargo calculation program for marine surveyors and ships' officers. PC DRAFT SURVEY for WINDOWS is easily operated using either keyboard or mouse. PC DRAFT SURVEY for WINDOWS uses industry accepted metric and imperial draught survey algorithms throughout and complies with the latest EEC proposals for standardisation of surveys. For vessels that have draught marks in feet & inches but metric hydrostatic data PC DRAFT SURVEY for WINDOWS provides a rapid feet & inches to metres conversion feature. An automatic hydrostatic interpolator is included to reduce errors and to provide very fast entry of data. Multiple ship's hydrostatic data and draught survey data can be stored to file and are then used automatically, making for rapid and error free surveys. Multiple sets of Separate entry "forms" are provided for initial and final survey data. A comprehensive display of data at each step of calculation is produced. Survey data can be saved to file and/or printed.

Minimum requirements: Windows 7 or Windows 8 or Windows 10. 2MB free hard disk space.

## Marine Programs for Windows PCs contd...

### PC MARINE SURVEYORS COMPILATION for Windows (Order Code SWPC14)

A user-friendly compilation of surveying programs, incorporating our **PC OILSURVEY** and **PC DRAFTSURVEY** programs and many useful utilities. Incorporating the following functions:-  
OILCALC: Oil cargo calculation for Crude, Product or Lube oils using a variety of different units of input. Integrated ullage interpolation, temperature conversions, Wedge calculation and Tables 3/21/51 API/SG/Density conversion. With an automatic tank naming facility and tank layout storage. All data can be stored to disk. Reports can be sent to printer or file or edited in any standard wordprocessor program.  
CHEMCALC: Chemical Cargo calculation with an automatic tank naming facility and tank layout storage; all data can be stored to disk for later retrieval. Reports can be sent to printer or file.  
Integrated ullage interpolation, temperature conversions and Wedge calculation.

### Easy operation & User-Friendly prompts

PIPELINE: Pipeline capacity calculation with standard size table. ULLAGE: Table interpolator for both

| DIMENSIONS   |        | OBSERVED DATA   |      | Output  |       |
|--|--------|---|------|---------|-------|
| <input checked="" type="radio"/> Metres<br><input type="radio"/> Feet.Ins  |        | <input checked="" type="radio"/> Metres<br><input type="radio"/> Feet.Ins |      | Cu.mtrs | 0.238 |
| Ship Length  | 103.53 | Dip   | 0.01 | Cu.feet | 8.413 |
| Tank Length  | 15.55  | Trim  | 0.5  | Barrels | 1.498 |
| Tank Width   | 12.67  | <input type="checkbox"/> Trim by head                                     |      |         |       |
| Tank Depth   | 12.45  | Dip or tank sounding. A message will appear if there is not a wedge.      |      |         |       |
| Ullage dist  | 0.78   |   |      |         |       |
| Sounding Pipe Option<br><input checked="" type="radio"/> Open sounding postn.<br><input type="radio"/> Sounding pipe |        |   |      |         |       |

Quit/Esc      Help on/off      Clear data

Feet.Ins entry format 12' 4.5" Enter as 12.045

Ullage/Trim and Ullage only tables. WEDGE: Cargo residue calculation. VEF: Vessel Experience Factor calculation and storage to disk. ROOF: Calculation of API, Specific gravity, Density for Shore Tank Floating Roof calculation. UTILITIES: Storage of your name, ship's name etc to disk for automatic inclusion in printed reports produced by the program. Sample Label printing. ASTM Tables 5,23,53; Correction of API, Specific Gravity, Density at observed temp to standard temp for Crude (A), Products (B) and Lube (D) oils. Optional Hydrometer correction also featured. ASTM Tables 6,24,54; Computation of Volume correction factor for Crude, Products and Lube oils. Using API@60 F, Specific gravity @60F, Density@15C. ASTM Table 56; Vacuum to air weight Correction factor. CONVERSION of Density between API@60F, Specific gravity @60F, Density @15C. CONVERSION of API@60F to Pounds per USgal @60F and conversion between Pounds and US gallons. COMPREHENSIVE Conversion of Temperatures, Lengths, Areas, Volumes and Weights. DRAFTSURVEY: Initial Survey, with calculation of constant and full report and saving to file. Final and/or Intermediate Survey with full report and saving to file. Printing of reports for each Survey with selectable number of copies. Easy hydrostatic tables interpolator; to reduce errors and provide very fast entry of data. Storage of surveyor's name, address, company name and ship's name. Storage and automatic usage of hull hydrostatic data for both metric and imperial vessels; especially useful for Surveyors who have regularly calling ships or Ship's officers assigned to one ship. During entry of the Survey you can go back and change any entered value at any time. Optional manual input for corrections from ship's marks to perpendiculars. Optional linking of Initial and Final Surveys to produce a one page report. Minimum requirements: Windows 7 or Windows 8 or Windows 10 or Windows 10. 2MB free hard disk space.

## Marine Programs for Windows PCs contd...

PC SHIPCHECK for WINDOWS by M. Shoolbraid, Master Mariner (Order Code SWPC15)

### Easy operation & User-Friendly prompts

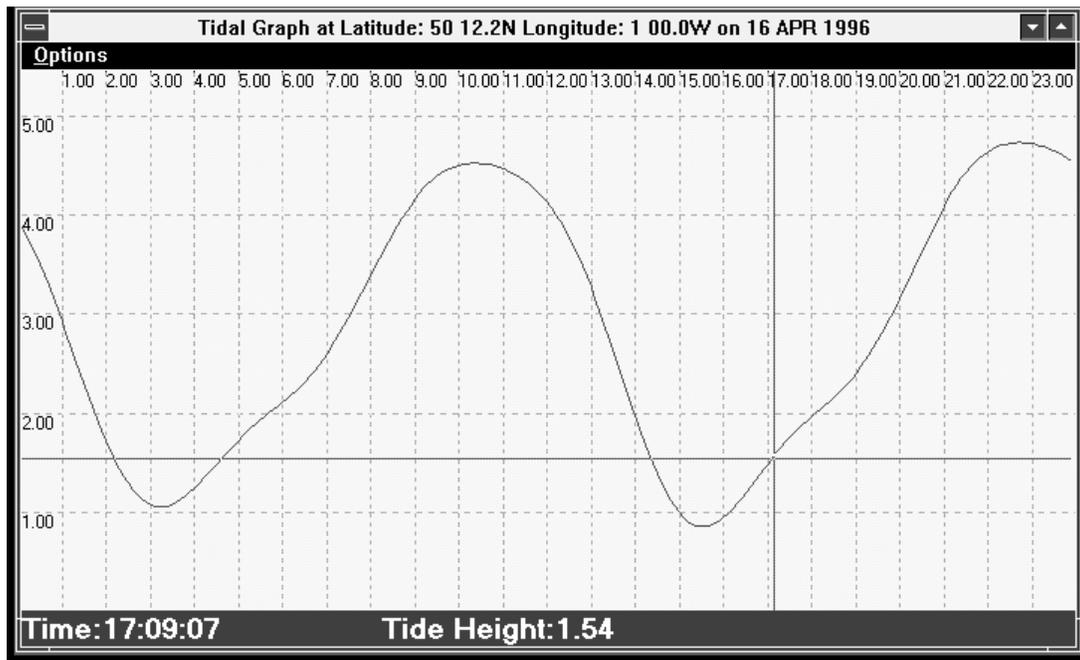
The screenshot displays the 'Vetting Questions and Answers' window. At the top, it shows 'Question Number: 1 of 159' and 'Loading Factor: 5'. Below this, it indicates 'Score=5 Max=5 Rating=100.0 %'. The main question area is highlighted in cyan and contains the text: 'Q. 1.2.1 Is the Certificate of registry valid and in force? Please quote number?'. To the left of the question is an 'Answer Selection' panel with radio buttons for '1-Yes', '2-No', '3-Not Applicable', and '0-Unanswered'. To the right of the question is a control panel with buttons for 'Next', 'Previous', 'Goto Q#', 'Scan ???', 'Find Text', 'Score+Prt', 'Edit Questions', and 'Exit/Save'. Below the question and answer selection is a 'Remarks etc' field with a note '(SHIFT+ESC returns original text during editing)'. At the bottom of the window, there is a status bar with the following information: 'File Time/Date: 04:30 5/Sep/1994', 'Surveyor: MWS', and 'Vessel: Demo vessel'.

PC SHIPCHECK for WINDOWS is a user-friendly program for checks of ship's equipment, documents and procedures; an essential management tool for Surveyors and Ships Officers alike. For checking everything from Charterers' requirements to Lifeboats, PC SHIPCHECK for WINDOWS is the ideal tool. Either keyboard or mouse may be used to control the program. PC SHIPCHECK is supplied with a ready-made set of 436 questions covering all general ship certificates and checks. You can add or edit questions as you require. You can make up as many of your own questions and checklists as you like. A percentage score is given for each ship survey and each survey may be saved to disk and/or printed on any standard printer.

Minimum requirements: Windows 7 or Windows 8 or Windows 10. 2MB free hard disk space.

## Marine Programs for Windows PCs contd...

### PC OFFSHORE TIDES for Windows by M. Harrison, Master Mariner. (Order Code SWPC12)



An advanced but simple to use Tidal Prediction program for European Offshore areas. Written with the user in mind, **PC OFFSHORE TIDES for WINDOWS** give easy selection of functions and extensive on-screen help is available, with user friendly input boxes and buttons. PC Offshore Tides for Windows includes the following:

- Coverage of the offshore area bounded by Latitude 48° North, Latitude 61° 30' North, Longitude 12 ° West and Longitude 7 ° East.
- Predictions for any Date from the Year 1900 to the Year 2090.
- Offshore tidal heights prediction calculated at six minute intervals for 1 day in Graphic form .
- Graphic Tidal predictions can be printed out or exported to other documents.
- Offshore tidal heights prediction calculated at six minute intervals for two days in tabular text form.
- Calculated table of high and low water times for a period of between 2 and 31 days.
- Export to Text file options for tabular text data.
- Predictions are produced in times for any Time zone selected by the user.

Minimum requirements: Windows 7 or Windows 8 or Windows 10. 2MB free hard disk space.

## Marine Programs for Windows PCs contd...

### PC OFFSHORE STABILITY for WINDOWS (Order Code SWPC26)

**SHIP STABILITY, DRAFT & TRIM CALCULATIONS FOR OFFSHORE VESSELS and WINDOWS**  
A simple to use but powerful Ship Stability program for the IBM PC and compatibles running Windows. The program is written specifically for Offshore Supply, Anchor Handling and AHTS vessels. Written with the user in mind, *PC OFFSHORE STABILITY for WINDOWS* gives easy selection of functions with user friendly input boxes and buttons.

TESTSHIP - VOYAGE 1  
Weights Intact Stability Dock Density

SHIP'S NAME: TESTSHIP VOYAGE NO. 1  
DATE: Tuesday-11-Mar-1997 TIME: 21:47:19

| ITEM        | WEIGHT | FREE SURFACE | VERTICAL MOM | LONGITUD. MOM |
|-------------|--------|--------------|--------------|---------------|
| LIGHTS/KEEL | 1500   | 0            | 7500         | 33750         |
| CARGO       | 220    | 0            | 412          | 9884          |
| TANKS       | 85     | 80           | 159.1        | 443           |
| STORES      | 0      | 0            | 0            | 0             |
| TOTALS      | 1805   | 80           | 8270.1       | 39497         |

FREE SURFACE CORR: .04m FWD MARKS DRAFT: 3.43m  
FLUID KG: 4.63m MID MARKS DRAFT: 3.61m  
MAX KG: 5.46m AFT MARKS DRAFT: 3.76m  
KM: 15.53m TRIM: -.34m BY STERN  
FLUID KG: 4.63m DOCK DENSITY: 1025  
STATUS: SAFE

OK Cancel PRINT EXPORT

Each copy of the program is customised to a specific vessel, with details and data from that vessel's stability book included in the program, in particular the program includes the following extra features when compared to our standard Stability programs:

- All data is entered and stored already in the program for the vessel concerned (simply supply us with a copy of the vessel's stability book).
- Trimmed Hydrostatic data is used, which is essential for accuracy on offshore vessels.
- Tank data is interpolated, for very accurate free surface corrections.
- Cargo Types can be chosen as standard or pipe, with the entrapped water calculation for pipes being carried out automatically.
- A customised manual is supplied with each copy of the program.

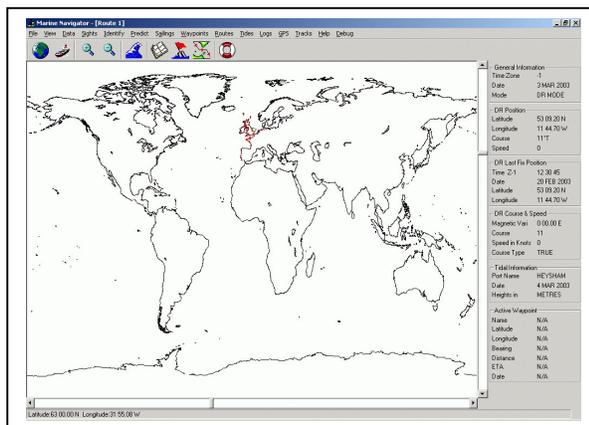
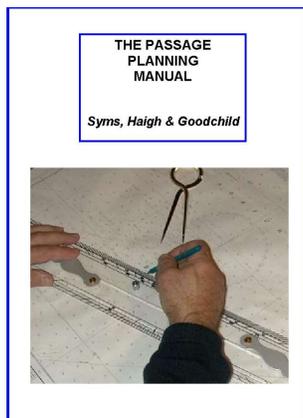
The Program is designed around a simple Menu system for ease of use. Ship Data may be in Metric or Imperial units.

For each vessel the Program can accommodate a maximum of:-

99 Cargo/Stores spaces. 99 Tanks. 99 Draft & Displacement Data points. 99 Draft & Safety criteria (Deadweight Moments, Maximum KG, Minimum GM) points. 99 Draft & KM data points. 99 Draft & LCF data points. 99 Draft & LCB data points. 99 Draft & trimming moment data points. 99 Draft and KN data points. Up to 999 voyages (Tank, Cargo and Store weights etc) may be saved per Ship. New Voyages are automatically inserted in the Voyage menu. The Program outputs (according to your choice):- Displacement, Vertical moments, Longitudinal moments, Free Surface, Free Surface correction, Fluid KG, Mean Draft, Trim, Trimmed drafts, Fluid GM, Deadweight Moments, Compliance with Safety Data, GZ values and intact stability graph.

System requirements are: Windows 7 or Windows 8 or Windows 10. 2 MB hard disk space.

## THE PASSAGE PLANNING MANUAL by Syms, Haigh and Goodchild (Order Code BKPLAN)



The **Passage Planning Manual** itself is the product of the authors' considerable seagoing and teaching experience and is the result of several years of refinement and trials at sea.

Originally conceived in 1995 by the three co-authors the methodology outlined in the manual has been successfully trialed at sea and taught extensively in most Australian Nautical Institutions. The **Passage Planning Manual** is in effect an update and refinement of experience with the original concept, both at sea and in the classroom.

It covers the underlying philosophy of a **Standardised Approach** using an easily remembered set of **Chart Symbols** and borrows from the computer age to provide unambiguous information on the chart in the form of **Dialogue Boxes**.

A **Prompt System** is employed incorporating a **Step by Step Methodology** and **Pro Forma planning layout**. Either as written sheets or the direct use of the Dolphin software.

A number of **Relevant Case Studies** are attached which are extensively referenced to text to illustrate and reinforce the principles involved.

The **Passage Planning Manual** is supplied complete with a demo copy of Dolphin's PC Marine Navigator for Windows or as a special offer with a full copy of Dolphin's PC Marine Navigator for Windows (Order code BKPLANSE)

**The manual is great, short, concise and never long-winded to the point where the reader might just glance through it without bothering to read it.**

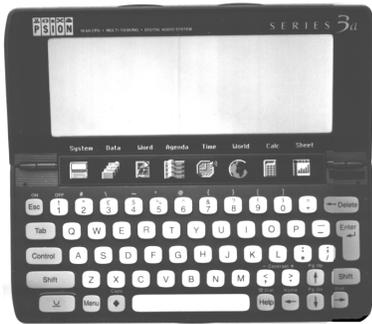
**Very sound advice...**

Capt. Nicholas Cooper  
Master *Maersk Ahram*



## Pocket Navigation Computers

### Psion Series 3X Pocket Navigation Computer (Order Code PNAV31)



A superb and very "user friendly" pocket computer, with full keyboard, combined with our popular and extremely capable Sightmaster 3 Navigation software on internal disk.

- Typical battery life is over 2 month on 2 AA batteries and a backup battery is also supplied.
- Includes Wordprocessor programs etc in the computer, for added functionality.
- Supplied ready to go out of the box.

See later for fuller details of both the Series 3X computer (HS3MX1) and Sightmaster 3 (SS301).

### Psion Series 5 Pocket Navigation Computer (Order Code PNAV52)



A superb and very "user friendly" pocket computer, with full keyboard, combined with our popular and extremely capable Sightmaster 5 Navigation software on CF (Compact Flash) disk.

- Typical battery life is over 1 month on 2 AA batteries and a backup battery is also supplied.
- Includes Wordprocessor programs etc in the computer, for added functionality.
- Supplied ready to go out of the box.

See later for fuller details of both the Series 5MX computer (HS5MX2) and Sightmaster 5 (SS5CF3).

### Pocket PC Navigation Computer (Order Code PNAVPP1)

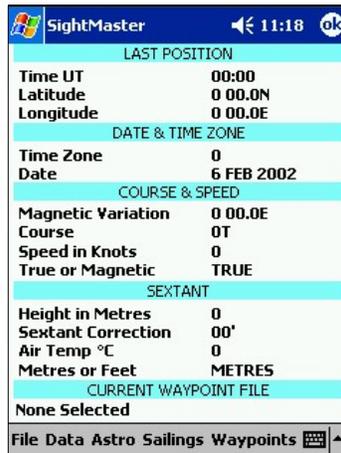
The available Pocket machines are constantly changing, so we supply a new Pocket PC made by one of the quality manufacturers (Compaq, Hewlett Packard or Viewsonic), with on screen keyboard, combined with our popular and extremely capable Sightmaster for Pocket PC Navigation software ready loaded.

- Typical battery life is over 1 week using the inbuilt battery. (Requires mains power for recharging in the supplied cradle).
- Includes Wordprocessor programs etc in the computer, for added functionality.
- Supplied ready to go out of the box.

See later for fuller details of both the Pocket PC computers and Sightmaster for Pocket PC (SPPC30).

## Marine Programs for Pocket PC computers

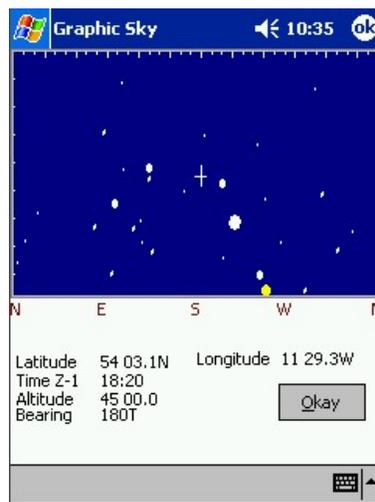
### SIGHTMASTER for POCKET PC by M. Harrison, Master Mariner (Order Code SPPC30)



An advanced but simple to use Ocean Navigation program for Pocket PCs running either Microsoft's Pocket PC operating system. Written with the user in mind, SIGHTMASTER for Pocket PC give easy selection of functions, with user friendly input boxes and buttons.

SIGHTMASTER for Pocket PC Includes:

Memory of all your data for navigation, including course, speed, last position ,height of eye, past sights, waypoints, routes, date. Courses & bearings in degrees magnetic or true, height of eye in feet or metres,(all selectable). Sight reduction with all corrections automatically applied; just select the body & enter the time. Inbuilt almanac accurate within 1. 0' of arc for the years 1900 to 2100. ALL astro' bodies, comprising 59 stars, the Sun, the Moon, Venus, Mars, Jupiter & Saturn are in the Almanac. Prediction of co-ordinates for any body, including Graphic Sky, AstroPlan, Sun & Twilights, Single Body. Graphic Fix display from any two or more sights.



The Identify function gives you the Star or Planet's name from estimated bearing & altitude. Great circle sailing with selectable interval for plotting. Multiple Sailing functions with Mercator sailing or plane sailing selected automatically. Storage of waypoints by number & descriptive name. Multiple Waypoint files for different areas. Storage of routes by number & descriptive name. All functions include automatic DR position update. SIGHTMASTER for Pocket PC also includes Compass correction and export of Waypoints and routes to plain text file for inclusion in other programs.

**Minimum requirements: Pocket PC operating system. 0.3 MB RAM.**

## Marine Programs for Pocket PC computers contd...

### VOYAGEMASTER for POCKET PC by M. Harrison, Master Mariner (Order Code SPPC31)



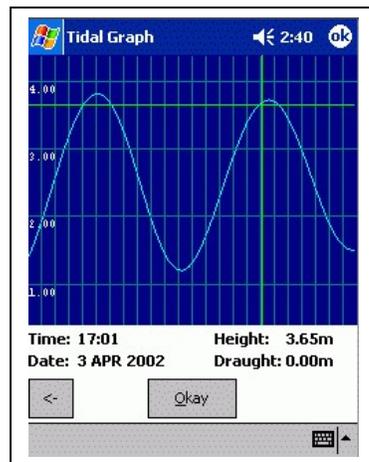
An advanced but simple to use Voyage Planning and Tidal Prediction program for the Pocket PC. Written with the user in mind, *VOYAGEMASTER for Pocket PC* give easy selection of functions and extensive on-screen help is available, with user friendly input boxes and buttons. Voyagemaster for Pocket PC includes the following:

#### Voyage (Passage) Planning:

Creation of multiple Voyage plan files, with comments. Each voyage file contains the Waypoints for the voyage and the course between Waypoints can be set to be Rhumb Line, Great Circle or Composite Great Circle sailing. Voyage files can be easily viewed, edited or added to. The calculated voyage display shows the course(s) and distances between each pair of Waypoints and the ETA at each Waypoint for an entered speed. The calculated voyage plan can be printed or output to a text file. The calculated voyage plan shows the nearest stored tidal Port in the program to the end of the voyage.

#### Sailings:

Rhumb line sailings. Great Circle sailing. Composite Great Circle sailing. Find Position. (D.R Position). Course & Speed made good. Course to Steer.



#### Tidal predictions:

Memory of all data for tidal predictions. Selection of any Time zone by the user, irrespective of the Port's zone. Inbuilt Tidal data for over 600 European Ports. You can add your own Ports for anywhere in the World. Calculation of Tidal heights at any entered Port for any date from 1900 to 2090. Output of Heights in Metres or Feet. Graphic display of the tidal height curve for 2 days with moving cursor and Draught line. Real time graphic display of the tidal height curve with moving cursor; automatically updated from the computer's clock and calendar. Prediction of High and Low water times and heights for 2-31 days. Output of Tidal heights at 6 minute intervals for 2 days. Graphic Tidal curves can be printed. Text output of Tides can be printed or exported to text file. Find nearest Port function & Rapid search function for Port name.

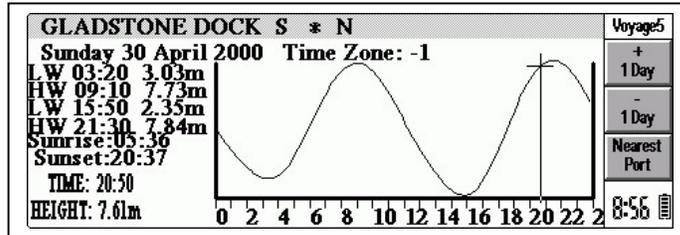
**Minimum requirements: Pocket PC operating system. 0.4 MB RAM.**

## Marine Programs for the Psion Revo Computer.

**VOYAGEMASTER Revo by Mike Harrison, Master Mariner (Order Code SSREVODK22 for European version or SSREVODK23 for USA version)**

Menus give easy selection of all functions and dialogs make entry of data easy. VOYAGEMASTER Revo stores Navigational Waypoints and Routes and calculates the Tidal heights for over 630 European Ports or over 200 USA Ports for any day from 1900 to 2089, no tables are needed. As well as major Ports many small Ports are included; making previously awkward calculations easy. Voyagemaster 5 also includes many Navigational functions for Yachtsmen and professional Navigators. For Ship's Officers, Yachtsmen, Ship Pilots, Fishermen, Marine Scientists, Civil Engineers, Bird Watchers etc the Program is ideal.

### Clear Graphic Tidal Curve Display



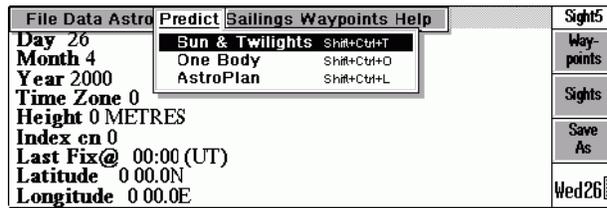
VOYAGEMASTER Revo (EUROPE) includes Data for over 630 European Ports, from the Azores to Norway, covering England, Scotland, Ireland, Wales, Channel Islands, Norway, Denmark, Germany, Netherlands, Belgium, France, Spain, Portugal, Azores, Madeira and Canary Islands.

VOYAGEMASTER Revo (USA) includes Data for over 200 USA Ports. Add any Port yourself outside those stored; for World wide predictions. Output in Metres or Feet. Graphic Tidal Curve display for a full day at any selected Port. High & Low water heights & times, Sunrise, Sunset & Moonlight. Single tide height prediction for any time with rising or falling indication. View Tidal heights for any period during the day at 10 minute intervals; optional export to Wordprocessor. AUTOMATIC mode; VOYAGEMASTER automatically shows current time and tide height. You work in the time shown on your watch - not the time zone chosen by the Tide tables so no more having to remember to add or subtract an hour! Storage of Navigation Waypoints and calculation of courses and distances. Storage of Navigation Routes and calculation of courses and distances. Calculation of Course to Steer and Course and Speed made good. The program is supplied on 3.5" Disk.

**Minimum requirements: Psion Revo or Revo Plus or Mako computer with 0.1 MB Disk space free.**

**Marine Programs for the Psion Revo Computer contd....**

**SIGHTMASTER Revo by Mike Harrison, Master Mariner (Order Code SSREVODK21)**



An advanced but simple to use Ocean Navigation program. Menus give easy selection of functions & the built in clock is available for real time navigation.

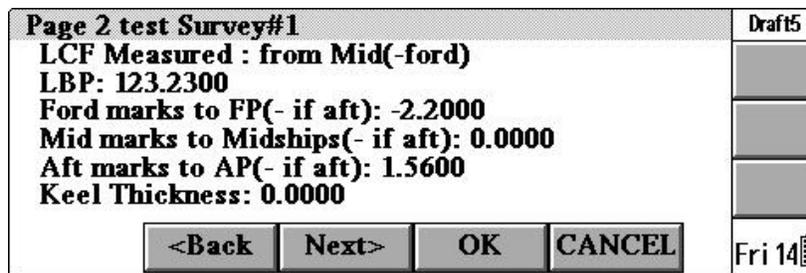
Includes: Memory of all your data for navigation, including course, speed, last position, height of eye, body selected, past sights, waypoints, routes, date, minimum & maximum altitudes for prediction. Courses & bearings in degrees magnetic or true, height of eye in feet or metres, all selectable. Sight reduction with all corrections automatically applied; just select the body & enter the time. Inbuilt almanac accurate within 1. 0' of arc for the years 1900 to 2100. ALL astro bodies, comprising 59 stars, the Sun, the Moon, Venus, Mars, Jupiter & Saturn are in the Almanac & no external tables are necessary. Prediction of co-ordinates for any body. ASTROPLAN"; prediction of all bodies for any time within your selected altitude limits. LHA Aries for any time. Rapid star identifier; gives you the Star's name from estimated bearing & altitude. Fix by statistics from any two or more sights. Past sights can be inspected & edited. Times of twilights & sun's meridian passage. Automatic DR position update. Great circle sailing with selectable interval for plotting. Mercator sailing or plane sailing selected automatically. Storage of waypoints by number & descriptive name. Storage of routes descriptive name. Saving of sights, waypoints, routes & data to disk. The program is supplied on 3.5" Disk.

**Minimum requirements: Psion Revo or Revo Plus or Mako computer with 0.1 MB Disk space free.**

**DRAFTSURVEY Revo by Mike Harrison, Master Mariner (Order Code SSREVODK25)**

Menus give easy selection of all functions and dialogs make entry of data easy. DRAFTSURVEY Revo uses industry accepted metric draught survey algorithms throughout and complies with the latest standards for Draught Surveying. DRAFTSURVEY Revo makes extensive use of stored information to keep your work to a minimum.

**Clear Survey Data Display**



DRAFTSURVEY Revo offers the following features:

Initial Survey, with calculation of constant and full report. Final or Intermediate Survey, with full report. Saving of data to file for each Survey. Storage of data for up to 10 different ships at any one time. Storage of an unlimited number of draught surveys for each ship. Rapid interpolation of hydrostatic data entered by hand from ship's tables. Storage of hydrostatic data and automatic interpolation for any chosen ship; particularly useful for ship's officers and for surveyors who have regularly calling ships. Survey data is shown as a series of "pages", allowing you to easily review or alter any value, with automatic re-calculation. Printing of reports for each Survey to any standard printer; making "on-site" reports possible with a standard portable printer. Help is available throughout the program.

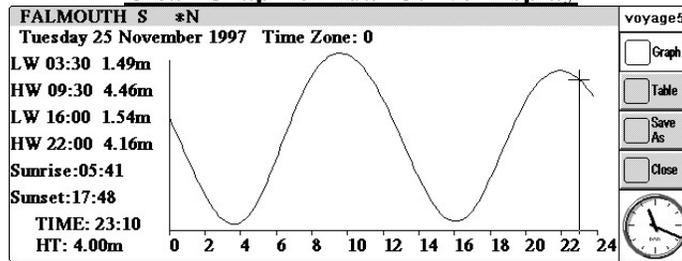
**Minimum requirements: Psion Revo or Revo Plus or Mako computer with 0.1 MB Disk space free.**

## Marine Programs for the Psion Series 5/5mx Computer and Ericsson MC 218

### VOYAGEMASTER 5 by Mike Harrison, Master Mariner

Menus give easy selection of all functions and dialogs make entry of data easy. VOYAGEMASTER 5 stores Navigational Waypoints and Routes and calculates the Tidal heights for over 630 European Ports or over 200 USA Ports for any day from 1900 to 2089, no tables are needed. As well as major Ports many small Ports are included; making previously awkward calculations easy. Voyagemaster 5 also includes many Navigational functions for Yachtsmen and professional Navigators. For Ship's Officers, Yachtsmen, Ship Pilots, Fishermen, Marine Scientists, Civil Engineers, Bird Watchers etc the Program is ideal.

#### Clear Graphic Tidal Curve Display



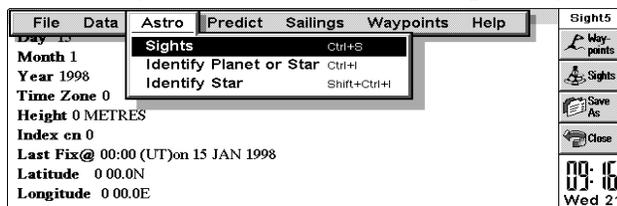
VOYAGEMASTER 5 (EUROPE) includes Data for over 630 European Ports, from the Azores to Norway, covering England, Scotland, Ireland, Wales, Channel Islands, Norway, Denmark, Germany, Netherlands, Belgium, France, Spain, Portugal, Azores, Madeira and Canary Islands.

VOYAGEMASTER 5 (USA) includes Data for over 200 USA Ports. Add any Port yourself outside those stored; for World wide predictions. Output in Metres or Feet. Graphic Tidal Curve display for a full day at any selected Port. High & Low water heights & times, Sunrise, Sunset & Moonlight. Single tide height prediction for any time with rising or falling indication. View Tidal heights for any period during the day at 10 minute intervals; optional export to Wordprocessor. AUTOMATIC mode; VOYAGEMASTER automatically shows current time and tide height. You work in the time shown on your watch - not the the time zone chosen by the Tide tables so no more having to remember to add or subtract an hour! Storage of Navigation Waypoints and calculation of courses and distances. Storage of Navigation Routes and calculation of courses and distances. Calculation of Course to Steer and Course and Speed made good. The program is supplied on CF Disk (Order Code SS5CF1 for European & Code SS5CF2 for USA version on CF Disk & SS5DK11 for European version on 3.5" Disk, SS5DK12 for USA Verison on 3.5" Disk)

**Minimum requirements: Psion Series 5 or 5MX or MC218 computer with 0.1 MB Disk space free.**

SIGHTMASTER 5 by Mike Harrison, Master Mariner (Order Code SS5CF3 for program on CF Disk or Code SS5DK13 for program on 3.5" disk)

An advanced but simple to use Ocean Navigation program. Menus give easy selection of functions & the built in clock is available for real time navigation. Includes: Memory of all your data for navigation, including course, speed, last position, height of eye, body selected, past sights, waypoints, routes, date, minimum &



maximum altitudes for prediction. Courses & bearings in degrees magnetic or true, height of eye in feet or metres, all selectable. Sight reduction with all corrections automatically applied; just select the body & enter the time. Inbuilt almanac accurate within 1. 0' of arc for the years 1900 to 2100. ALL astro bodies, comprising 59 stars, the Sun, the Moon, Venus, Mars, Jupiter & Saturn are in the Almanac & no external tables are necessary. Prediction of co-ordinates for any body. ASTROPLAN"; prediction of all bodies for any time within your selected altitude limits. LHA Aries for any time. Rapid star identifier; gives you the Star's name from estimated bearing & altitude. Fix by statistics from any two or more sights. Past sights can be inspected & edited. Times of twilights & sun's meridian passage. Automatic DR position update. Great circle sailing with selectable interval for plotting. Mercator sailing or plane sailing selected automatically. Storage of waypoints by number & descriptive name. Storage of routes descriptive name. Saving of sights, waypoints, routes & data to disk.

**Minimum requirements: Psion Series 5 or 5MX or MC218 computer with 0.1 MB Disk space free.**

## Marine Programs for the Psion Series 5/5mx Computer & Ericsson MC 218 contd...

MARINE NAVIGATOR 5 by Mike Harrison, Master Mariner (Order Code SS5CF10 for CF Disk or SS5DK20 for program on 3.5" disk.

**MARINE NAVIGATOR 5** combines GPS input with traditional Navigation techniques into an easy to use but very comprehensive Navigation program. The program can be interfaced with a GPS receiver for "real time" navigation, used on its own for navigation planning or used with a traditional marine sextant for astronomical navigation. **MARINE NAVIGATOR 5** overcomes the limited memories of GPS units by allowing any number of Waypoint and Route files, up to the limit of the free memory in your Psion. It will work with any GPS receiver which can output NMEA 0183 position sentences and provides an easy, portable way of carrying your navigational information about with you. **MARINE NAVIGATOR 5** Includes: Memory of all your data for navigation, including course, speed, last position, height of eye, body selected, past sights, waypoints, routes, date. Courses & bearings in degrees magnetic or true, height of eye in feet or metres, all selectable.

### Clear Data Display

| Marine Navigator Data |            | Marnav5  |            |
|-----------------------|------------|--|------------|
| Day                   | 6          |  | Way-points |
| Month                 | 7          |  | Sights     |
| Year                  | 1998       |  | Save As    |
| Time Zone             | 0          |  | Close      |
| Height                | 5 METRES   |  |            |
| Index cn              | -0.2       |  |            |
| Last Fix@             | 00:00 (UT) |  |            |
| Latitude              | 54 08.8N   |  |            |
| Longitude             | 3 22.4W    |  |            |

**COASTAL AND GENERAL NAVIGATION** functions include: GPS and DR (Dead Reckoning) modes with automatic update of position.

Instant Waypoint function for logging fishing locations etc.

Track logging facility.

Multiple Waypoint files with Goto Waypoint function.

Multiple Route Files with Route following function.

Storage of waypoints by number & descriptive name.

Storage of routes by number & descriptive name.

Mercator sailing or plane sailing course and distance calculation selected automatically.

Great circle sailing course and distance calculation with selectable interval for plotting.

**ASTRONOMICAL NAVIGATION** functions include: Sight reduction with all corrections automatically applied; just select the body & enter the time. Inbuilt almanac accurate within 1. 0' of arc for the years 1900 to 2100. ALL astro bodies, comprising 59 stars, the Sun, the Moon, Venus, Mars, Jupiter & Saturn are in the Almanac & no external tables are necessary. Prediction of co-ordinates for any body. "ASTROPLAN"; prediction of all bodies for any time within your selected altitude limits. LHA Aries for any time. Rapid star identifier; gives you the Star's name from estimated bearing & altitude. Fix by statistics from any two or more sights. Past sights can be inspected & edited. Times of twilights & sun's meridian passage. Latitude from meridian passage. Saving of sights to disk.

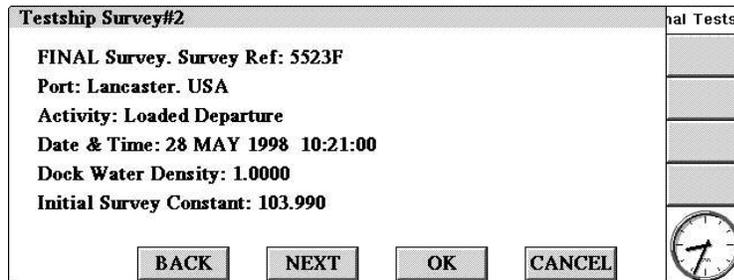
**Minimum requirements: Psion Series 5 or 5MX or MC218 computer with 0.1 MB Disk space free.**

## Marine Programs for the Psion Series 5/5mx & Ericsson MC 218 Contd.....

**DRAFTSURVEY 5 by Mike Harrison, Master Mariner** (Order Code SS5CF7 for Program on CF disk or SS5DK17 for program on 3.5" Disk)

Menus give easy selection of all functions and dialogs make entry of data easy. DRAFTSURVEY 5 uses industry accepted metric draught survey algorithms throughout and complies with the latest standards for Draught Surveying. DRAFTSURVEY 5 makes extensive use of stored information to keep your work to a minimum.

### Clear Survey Data Display



DRAFTSURVEY 5 offers the following features:

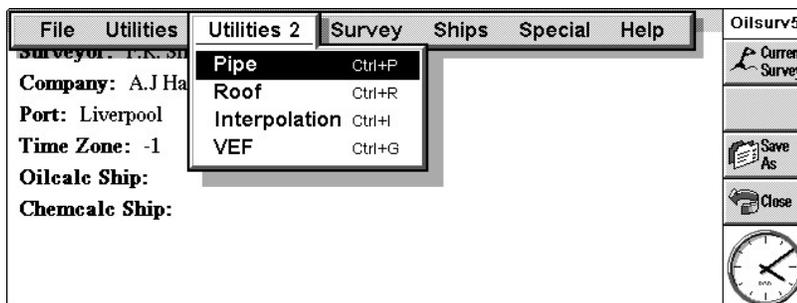
Initial Survey, with calculation of constant and full report. Final or Intermediate Survey, with full report. Saving of data to file for each Survey. Storage of data for up to 10 different ships at any one time. Storage of an unlimited number of draught surveys for each ship. Rapid interpolation of hydrostatic data entered by hand from ship's tables. Storage of hydrostatic data and automatic interpolation for any chosen ship; particularly useful for ship's officers and for surveyors who have regularly calling ships. Survey data is shown as a series of "pages", allowing you to easily review or alter any value, with automatic re-calculation. Printing of reports for each Survey to any standard printer; making "on-site" reports possible with a standard portable printer. Help is available throughout the program.

**Minimum requirements: Psion Series 5 or 5MX or MC218 computer with 0.1 MB Disk space free.**

**OILSURVEY 5 by Mike Harrison, Master Mariner** (Order Code SS5CF6 for Program on CF Disk or SS5DK16 for program on 3.5" disk,

OILSURVEY 5 is a user-friendly cargo calculation program for Marine Surveyors and Ships' Officers. As well as Oil and Chemical cargo calculation a comprehensive set of ASTM-IP tables are included together with utilities to complement the tables and refine the calculation. OILSURVEY 5 is controlled by easy to use Menus and Dialogs for easy operation.

### Easy Menu operation



OILSURVEY 5 offers the following functions.

**OILCALC**; Oil cargo survey calculation for Crude, Product or Lube oils using a variety of different units of input and output. Featuring automatic tank naming. Up to 99 Surveys can be stored in internal memory and quickly retrieved. All Surveys can be output as a printed report.

**CHEMCALC**; Chemical cargo survey calculation given density and temperature. Featuring automatic tank naming. Up to 99 Surveys can be stored in internal memory and quickly retrieved. All Surveys can be output as a printed report. Minimum requirements: Psion Series 5 or 5MX or MC218 computer with 0.1 MB Disk space free.

**Marine Programs for the Psion Series 5/5mx Computer & Ericsson MC 218 Contd.....**

**STABILITY DRAFT & TRIM 5 by Mike Harrison, Master Mariner (Order Code SS5CF4 for program on CF disk or SS5DK14 for program on 3.5" disk)**

An easy to use ship calculation Program. STABILITY, DRAFT & TRIM 5 Includes: Entry of Data for 1 to 10 ships with all data being held securely in memory. Entered ships are automatically entered in the program's menu, for easy recall.

For each Ship the Program can store up to a maximum of 99 of each of the following; Cargo spaces, Tanks, Stores spaces, Hull data points (draught, displacement, LCF,LCB and trimming moment), Draft & Safety criteria (Deadweight Moments, Maximum KG, Minimum GM) points, Draft & KM Data points.

**Clear Voyage Data Display**

|                         |                          |                         |
|-------------------------|--------------------------|-------------------------|
| <b>Test Voyage:1</b>    |                          | Stabty5                 |
| <b>Cargo:</b> 220.00t   | <b>Ford:</b> 3.43m       |                         |
| <b>Tanks:</b> 85.00t    | <b>Midship:</b> 3.61m    |                         |
| <b>Stores:</b> 0.00t    | <b>Aft:</b> 3.76m        |                         |
| <b>Displt:</b> 1805.00t | <b>Trim:</b> -0.34m STRN |                         |
| <b>Fluid KG:</b> 2.13m  | <b>Max KG</b> 2.46m      | Close                   |
| <b>Fluid GM:</b>        | <b>Safety:</b> SAFE      | 11:07<br>17:01<br>Sat 6 |

An unlimited number of voyages may be saved for each Ship. Voyages may be recalled at any time. The program's voyage report shows:- Displacement, total cargo, total tank contents, total stores, fluid KG, fluid GM, Compliance with Safety Data, Trim, Forward Midships and Aft drafts. Using the optional Series 5 parallel link, the program will print out the voyage report to any standard printer.

**Minimum requirements: Psion Series 5 or 5MX or MC218 computer with 0.1 MB Disk space free.**

**COASTMASTER 5 by Mike Harrison, Master Mariner**

(Order Code SS5CF5 for CF Disk or SS5DK15 for 3.5" Disk)

Coastmaster 5 is designed for the Yachtsman or Professional Navigator who needs to store very large numbers of Waypoints and Routes and make use of the many handy utilities that are built into Coastmaster 5.

Coastmaster 5 is designed to complement our Sightmaster 5 Ocean Navigation program which offers full AstroNavigation and Ocean Navigation facilities.

**Easy Menu operation and Clear Voyage Data Display**

|                      |                 |            |                   |            |      |                         |
|----------------------|-----------------|------------|-------------------|------------|------|-------------------------|
| File                 | Data            | Predict    | Sailings          | Waypoints  | Help | Coast5                  |
| Day 2                | Month 6         | Year 1998  | Find Position     | Way-points |      |                         |
| Time Zone 0          | Height 0 METRES | Index cn 0 | Course & Distance | Save As    |      |                         |
| Last Fix@ 00:00 (UT) |                 |            | Great Circle      | Close      |      |                         |
| Latitude 0 00.0N     |                 |            | Speed & Course mg |            |      |                         |
| Longitude 0 00.0E    |                 |            |                   |            |      | 11:07<br>17:01<br>Sat 6 |

COASTMASTER 5 Includes: Non-volatile memory for system settings. Selectable number of decimal places for readouts. Local time offset. Courses true or magnetic (with variation input). Mercator Sailing, or Plane sailing (selected automatically). Automatic route calculation.

Computation of course made good (or to steer, or current). Multiple Waypoint files (or routes) storage and recall with comprehensive edit and merge facilities. Times of twilights & Sun meridian passage with built -in Sun almanac for the years 1583 to 2100.

**Minimum requirements: Psion Series 5 or 5MX or MC218 computer with 0.1 MB Disk space free.**

## Marine Programs for the Psion Series 5/5mx Computer & Ericsson MC 218 Contd.....

### SHIPCHECK 5 by Mike Harrison, Master Mariner (Order Code SS5CF8 for CF disk or SS5DK18 for 3.5" disk)

An easy to use ship and equipment survey program for use by Surveyors and Ships Officers.

Menus give easy selection of all functions and dialogs make entry of data easy. SHIPCHECK 5 turns your Psion into an "electronic check list" for checking the whole ship or any set of equipment or stores onboard. SHIPCHECK 5 does away with all the old, often only half-readable, paper check lists found in many marine activities and provides an up-to-date but affordable and compact method for carrying out surveys.

| Shipcheck 5                             | Ship5  |
|---|--|
| Current Survey Ref: acbp145/98          |  |
| Ship: m.v British Beech                 |  |
| Port: Liverpool                         |           |
| Survey Date: 02 JUL 1998 Time: 22:09:00 |           |
| Questions File: Question                |           |
| Questions answered: 1                   |  |
| % SCORE: 0.2294                         |  |
| Questions to answer: 435                | <br>Fri 3 |

SHIPCHECK 5 offers the following features:

Supplied complete with over 400 questions for general ship checking; used in owner's and charterer's surveys. Creation and editing of new question files; as many as your Psion can store, for everything from lifeboats to ship's stores.

Saving of data to file for each Survey.

Optional Printing of survey question lists to paper for use by other personnel or in particularly dirty areas.

Survey questions are shown on a series of "pages", allowing you to easily review or alter any value.

Automatic calculation of percentage of questions correct and number of questions still to answer.

Printing of reports for each Survey to any standard printer; making "on-site" reports possible with a standard portable printer.

Transmission of Reports by E-Mail or Fax using the free add-in software for the Series 5.

SHIPCHECK 5 is supplied on a ready-to-use solid state disk together with a comprehensive manual, all packaged in a neat water resistant box. SHIPCHECK 5 will run on any Psion Series 5 computer.

**Minimum requirements: Psion Series 5 or 5MX or MC218 computer with 0.1 MB Disk space free.**

### ROUTE PLANNER 5 - Route Planning Software. (Program provided on CD) Order Code SS5CD1

A Comprehensive route planning package that can plan individual routes across Europe if required or focus on individual countries. Preferred routes, speeds, stopping places can all be configured by the user. Also supports NMEA GPS interface, Typical full UK map would take 2Mb of storage space.

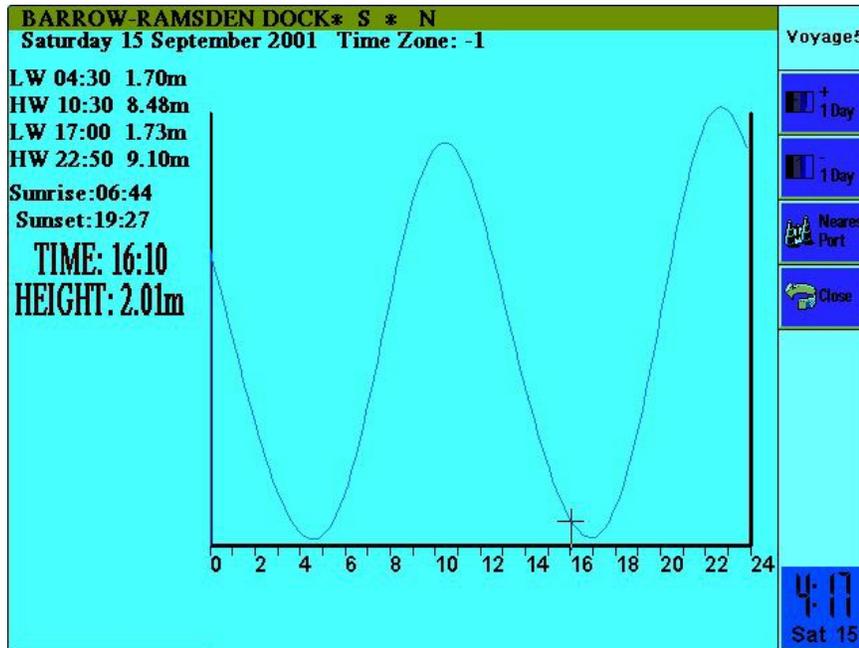
## Marine Programs for the Psion Series 7 and Psion-Teklogix Netbook Computers

### VOYAGEMASTER 7 by Mike Harrison, Master Mariner

The program is supplied on CF Disk (Order Code SS5CF1 for European & Code SS5CF2 for USA version on CF Disk & SS5DK11 for European version on 3.5" Disk, SS5DK12 for USA Version on 3.5" Disk)

Menus give easy selection of all functions and dialogs make entry of data easy. VOYAGEMASTER 7 stores Navigational Waypoints and Routes and calculates the Tidal heights for over 630 European Ports or over 200 USA Ports for any day from 1900 to 2089, no tables are needed. As well as major Ports many small Ports are included; making previously awkward calculations easy. Voyagemaster 7 also includes many Navigational functions for Yachtsmen and professional Navigators. For Ship's Officers, Yachtsmen, Ship Pilots, Fishermen, Marine Scientists, Civil Engineers, Bird Watchers etc the Program is ideal.

### Clear Graphic Tidal Curve Display



VOYAGEMASTER 7 (EUROPE) includes Data for over 630 European Ports, from the Azores to Norway, covering England, Scotland, Ireland, Wales, Channel Islands, Norway, Denmark, Germany, Netherlands, Belgium, France, Spain, Portugal, Azores, Madeira and Canary Islands.

VOYAGEMASTER 7 (USA) includes Data for over 200 USA Ports. Add any Port yourself outside those stored; for World wide predictions. Output in Metres or Feet. Graphic Tidal Curve display for a full day at any selected Port. High & Low water heights & times, Sunrise, Sunset & Moonlight. Single tide height prediction for any time with rising or falling indication. View Tidal heights for any period during the day at 10 minute intervals; optional export to Wordprocessor. AUTOMatic mode; VOYAGEMASTER automatically shows current time and tide height. You work in the time shown on your watch - not the the time zone chosen by the Tide tables so no more having to remember to add or subtract an hour! Storage of Navigation Waypoints and calculation of courses and distances. Storage of Navigation Routes and calculation of courses and distances. Calculation of Course to Steer and Course and Speed made good.

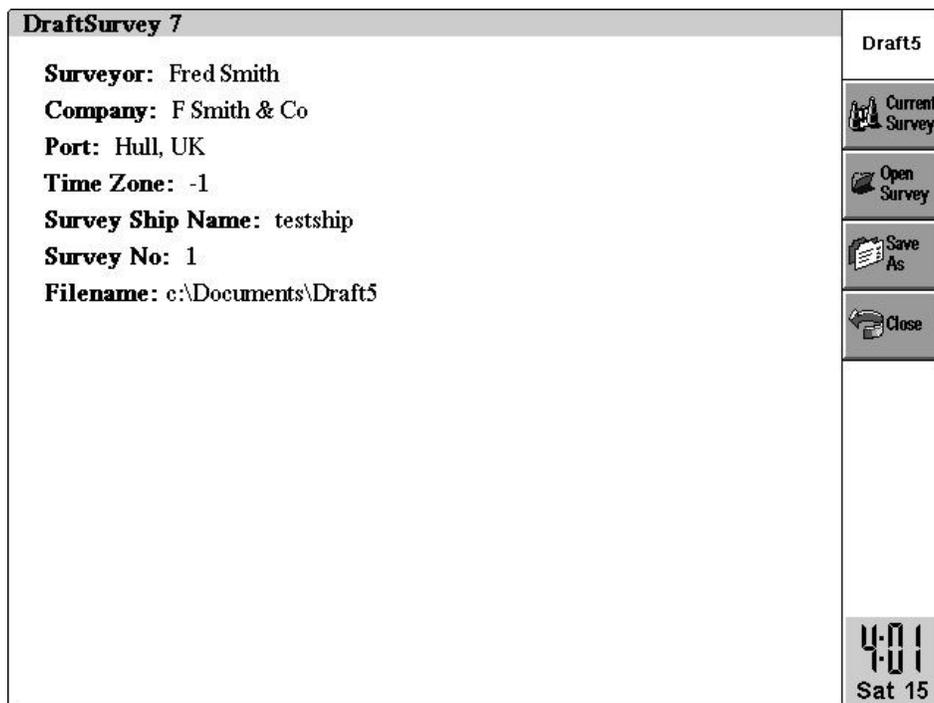
**Minimum requirements: Psion Series 7 or Netbook computer with 0.1 MB Disk space free.**

## Marine Programs for the Psion Series 7 and Psion-Teklogix Netbook Computers contd....

**DRAFTSURVEY 7 by Mike Harrison, Master Mariner (Order Code SS5CF7 for Program on CF disk or SS5DK17 for program on 3.5" Disk)**

Menus give easy selection of all functions and dialogs make entry of data easy. DRAFTSURVEY 7 uses industry accepted metric draught survey algorithms throughout and complies with the latest standards for Draught Surveying. DRAFTSURVEY 7 makes extensive use of stored information to keep your work to a minimum.

### Clear Survey Data Display



DRAFTSURVEY 7 offers the following features:

Initial Survey, with calculation of constant and full report. Final or Intermediate Survey, with full report.

Saving of data to file for each Survey. Storage of data for up to 10 different ships at any one time.

Storage of an unlimited number of draught surveys for each ship. Rapid interpolation of hydrostatic data entered by hand from ship's tables. Storage of hydrostatic data and automatic interpolation for any chosen ship; particularly useful for ship's officers and for surveyors who have regularly calling ships. Survey data is shown as a series of "pages", allowing you to easily review or alter any value, with automatic re-calculation.

Printing of reports for each Survey to any standard printer; making "on-site" reports possible with a standard portable printer. Help is available throughout the program.

**Minimum requirements: Psion Series 7 or Netbook computer with 0.1 MB Disk space free.**

## Marine Programs for the Psion Series 7 and Psion-Teklogix Netbook Computers contd....

**SHIPCHECK 7 by Mike Harrison, Master Mariner**  
(Order Code SS5CF8 for CF disk or SS5DK18 for 3.5" disk)

An easy to use ship and equipment survey program for use by Surveyors and Ships Officers.

Menus give easy selection of all functions and dialogs make entry of data easy. SHIPCHECK 7 turns your Psion into an "electronic check list" for checking the whole ship or any set of equipment or stores onboard. SHIPCHECK 7 does away with all the old, often only half-readable, paper check lists found in many marine activities and provides an up-to-date but affordable and compact method for carrying out surveys.

| Survey of Light Derby  |       |
|--|-------|
| No#: 1   | Ship5 |
| Is the Certificate of registry valid and in force?   |       |
| Please quote number?   |       |
| Answer: YES  |       |
| Notes: NB1245783 (Expires 1st June 2002)   |       |
| <input data-bbox="526 1150 631 1188" type="button" value=" &lt; BACK "/> <input data-bbox="675 1150 781 1188" type="button" value=" NEXT &gt; "/> <input data-bbox="824 1150 930 1188" type="button" value=" OK "/> <input data-bbox="974 1150 1079 1188" type="button" value=" CANCEL "/> |       |
| 4:00<br>7:00<br>Sat 15   |       |

SHIPCHECK 7 offers the following features:

Supplied complete with over 400 questions for general ship checking; used in owner's and charterer's surveys. Creation and editing of new question files; as many as your Psion can store, for everything from lifeboats to ship's stores.

Saving of data to file for each Survey.

Optional Printing of survey question lists to paper for use by other personnel or in particularly dirty areas.

Survey questions are shown on a series of "pages", allowing you to easily review or alter any value.

Automatic calculation of percentage of questions correct and number of questions still to answer.

Printing of reports for each Survey to any standard printer; making "on-site" reports possible with a standard portable printer.

Transmission of Reports by E-Mail or Fax using the free add-in software for the Series 7 and Netbook.

**Minimum requirements: Psion Series 7 or Netbook computer with 0.1 MB Disk space free.**

**Marine Programs for the Psion Series 3/3a/3c/3mx & Workabout Computers.**

**SIGHTMASTER 3 by M. Harrison Master Mariner. (Order Code SS301)**

| Sightmaster Data  |                       | 11:12:35 |
|-------------------|-----------------------|----------|
| Day 22            | Position@ 08:20 (Z-1) |          |
| Month 8           | Latitude 54 12.2N     |          |
| Year 1996         | Longitude 7 06.3W     |          |
| Time Zone -1      |                       |          |
| Height 5.1 METRES | Course 123.0T         |          |
| Index cn -0.2     | Speed 10.2            |          |

An advanced but simple to use Ocean Navigation program, written to take full advantage of the Series 3/3a/3c/3mx/Workabout's capabilities. Menus give easy selection of functions & help is available by simply pressing the Help key. Includes: Memory of all your data for navigation, including course, speed, last position, height of eye, past sights, waypoints, routes, date, minimum & maximum altitudes for prediction. Courses & bearings in degrees magnetic or true, height of eye in feet or metres, all selectable. Sight reduction with all corrections automatically applied; just select the body & enter the time. Inbuilt almanac accurate within 1.0' of arc for the years 1900 to 2100. ALL astro bodies, comprising 59 stars, the Sun, the Moon, Venus, Mars, Jupiter & Saturn are in the Almanac & no external tables are necessary. Prediction of co-ordinates for any body. "ASTROPLAN"; prediction of all bodies for any time within your selected altitude limits. LHA Aries for any time. Rapid star identifier; gives you the Star's name from estimated bearing & altitude. Fix by statistics from any two or more sights. Past sights can be inspected & edited. Times of twilights & sun's meridian passage. Latitude from meridian passage. Automatic DR position update. Great circle sailing with selectable interval for plotting. Mercator sailing or plane sailing selected automatically. Storage of waypoints by number & descriptive name. Storage of routes by number & descriptive name. Saving of sights, waypoints, routes & data to memory.

**Minimum requirements: Psion Series 3/3a/3c/3MX computer with 0.1 MB Disk space free.**

**COASTMASTER 3, by R.Jolliffe & M.Harrison, Master Mariners (Order Code SS303)**

| Data        | Sailing     | Waypoint | General         | Sun |
|-------------|-------------|----------|-----------------|-----|
| Fix Day 16  | New File    | %N       | Time 01:00 (01) |     |
| Month 7     | Open File   | %O       | 52°00.0N        |     |
| Year 199    | Edit File   | %E       | 012°00.0E       |     |
| Time Zone 0 | Add to File | %U       | 2.0T            |     |
| Index Err 0 | Shut File   | %S       |                 |     |
|             | Merge In    | %M       |                 |     |

An advanced but simple to use Navigation program for the Psion Series 3/3a/3c/3mx/Workabout, written to take full advantage of the Series 3's capabilities. Menus give easy selection of functions and "reactive dialogs" make the program particularly easy to use. Coastmaster 3 is designed for the Navigator who needs to store very large numbers of Waypoints and Routes and make use of the many handy utilities. COASTMASTER 3 Includes: Non-volatile memory for system settings. Interface with Sightmaster 3 for data and waypoint files. Selectable number of decimal places for readouts. Local time offset. Courses true or magnetic (with variation input). Mercator Sailing, or Plane sailing (selected automatically) and computation of intermediate points along a rhumb line for plotting. Automatic route calculation. Real-Time DR facility. Computation of course made good (or to steer, or current). ETA computation. Multiple Waypoint files (or routes) storage and recall with comprehensive edit and merge facilities. Metric & Imperial conversions. Computation of true / apparent wind. Distance off by vertical sextant angle or angles on the bow. Fuel consumption estimation. Times of twilights & Sun meridian passage. Altitude and bearing for the sun with built -in Sun almanac for the years 1583 to 2100.

**Minimum requirements: Psion Series 3/3a/3c/3MX computer with 0.1 MB Disk space free.**

**Marine Programs for the Psion Series 3/ 3a/3c/3mx & Workabout Computers contd...**

### MARINE NAVIGATOR 3 by M.Harrison., Master Mariner (Order Code SS310)

An advanced but simple to use Navigation program for the the Psion Series 3/3a/3c/3mx & Workabout. **MARINE NAVIGATOR 3** combines GPS input with traditional Navigation techniques into an easy to use but very comprehensive Navigation program. **MARINE NAVIGATOR 3** can be interfaced with a GPS receiver for "real time" navigation, used on its own for navigation planning or used with a traditional marine sextant for astronomical navigation. **MARINE NAVIGATOR 3** overcomes the limited memories of GPS units by allowing any number of Waypoint and Route files, up to the limit of the free memory in your Psion. **MARINE NAVIGATOR 3** will work with any GPS receiver which can output NMEA 0183 position sentences and provides an easy, portable way of carrying your navigational information about with you.

| GOTO POSITION                     |                 | 14:16:04 |
|-----------------------------------|-----------------|----------|
| GPS LAT 52 49.02N                 | LONG 3 39.39W   |          |
| COURSE 299.9T                     | SPEED 21.9'     |          |
| TO LAT 54 07.98N                  | LONG 7 13.20W   |          |
| BEARING 301.8T                    | DISTANCE 150.0' |          |
| ETA 06:51 (UT) Monday 26 MAY 1997 |                 |          |

**COASTAL AND GENERAL NAVIGATION** functions include: GPS and DR (Dead Reckoning) modes with automatic update of position. Instant Waypoint function for logging fishing locations etc. Track logging facility. Multiple Waypoint files with Goto Waypoint function. Multiple Route Files with Route following function. Storage of waypoints by number & descriptive name. Storage of routes by number & descriptive name. Mercator sailing or plane sailing course and distance calculation selected automatically. Great circle sailing course and distance calculation. Courses & bearings in magnetic or true. **ASTRONOMICAL NAVIGATION** functions include: Sight reduction with corrections automatically applied; just select the body & enter the time. Inbuilt almanac accurate within 1. 0' of arc for the years 1900 to 2100. ALL astro bodies, comprising 59 stars, the Sun, the Moon, Venus, Mars, Jupiter & Saturn are in the Almanac & no external tables are necessary. Prediction for any body. "ASTROPLAN"; prediction of all bodies for any time within your selected altitude limits. Rapid star identifier; gives you the Star's name from estimated bearing & altitude. Fix by statistics from any two or more sights. Past sights can be inspected & edited. Times of twilights & sun's meridian passage. Latitude from meridian passage. Saving of sights to disk.

**Minimum requirements: Psion Series 3/3a/3c/3MX computer with 0.1 MB Disk space free.**

### STABILITY DRAFT & TRIM 3, by M.Harrison, Master Mariner (Order Code SS302)

| Voyages        | Ships | Special | ?:48 |
|----------------|-------|---------|------|
| Current voyage | %C    |         |      |
| Recall voyage  | %R    |         |      |
| New voyage     | %N    |         |      |
| Delete voyage  | %D    |         |      |

A simple to use but very capable program for Ship loading calculations. The program is written to take full advantage of the Series 3/3a/3c/3mx/Workabout's capabilities, Menus give easy selection of functions & help is available by simply pressing the Help key. The program includes; entry of data for 1 to 10 ships with all data being held securely in memory. Entered ships are automatically entered in program's menu for easy recall. For each ship the program can store a maximum of 99 of each of the following: cargo spaces, tanks, stores spaces, hull data points(draught, displacement, LCF, LCB,and trimming moment), draft and safety criteria (deadweight moments, maximum KG, Minimum GM) points, draft & KM data points. Up to 99 voyages may be saved for each ship, new voyages are automatically inserted in the menu; voyages may be recalled at any time. The program's voyage report shows:- Displacement, total cargo, total stores, fluid KG, fluid GM compliance with safety criteria, trim, forward midships and aft drafts. Using the optional Series 3 parallel link the program will print out the voyage report to any standard printer.

**Minimum requirements: Psion Series 3/3a/3c/3MX computer with 0.1 MB Disk space free.**

## Marine Programs for the Psion Series 3/3a/3c/3mx & Workabout Computers contd...

### GRAIN 3 by M.Harrison, Master Mariner (Order Code SS307)

|                   | CARGO                  | 10:39:09 |
|-------------------|------------------------|----------|
| Number:# 1        | Grain Vol:100.00m3     |          |
| Name: Test Hold 1 | Grain Weight:45.45t    |          |
| Cargo KG:2.00m    | Ullage:0.22m           |          |
| SF:2.20m3/mt      | Vol Heel mmt:100.00m4  |          |
| Hold Status:MT    | Grain Heel mmt:45.45tm |          |
| Grain Name:Wheat  | Vertical mmt:90.91tm   |          |

GRAIN 3 is designed to make easy the many calculations involved in loading a ship with a cargo of Grain. GRAIN 3 Includes: Entry of Data for 1 to 10 ships with all data being held securely in memory. Entered ships are automatically entered in the program's menu, for easy recall. For each Ship the Program can store up to a maximum of 99 of each of the following; Cargo spaces, Tanks, Stores spaces, Hull data points (draught, displacement, LCF,LCB and trimming moment), Draft & Safety criteria (Deadweight Moments, Maximum KG, Minimum GM) points, Draft & KM Data points, Draft & KN Data points, Draft and Maximum Heeling moment Data points. Up to 99 voyages may be saved for each Ship. New Voyages are automatically inserted in the Menu. Voyages may be recalled at any time. A Stowage factor conversion function gives easy conversion between grain stowage factors. The program's voyage report shows:- Displacement, total cargo, total tank contents, total stores, fluid KG, fluid GM, Compliance with Safety Data, Trim, Forward Midships and Aft drafts, Grain shifting moments, Stowage factors, calculated weights and much more. Using the optional Series 3 parallel link, the program will print out the voyage report to any standard printer.

**Minimum requirements: Psion Series 3/3a/3c/3MX computer with 0.1 MB Disk space free.**

### OILSURVEY 3 by M.Shoolbraid & M.Harrison, Master Mariners (Order Code SS304)

|                | Oilsurvey 3     | 10:14:59 |
|----------------|-----------------|----------|
| Surveyor:      | Michael Jopling |          |
| Company:       | Calibration Co. |          |
| Port:          | Sullom Voe      |          |
| Time Zone:     | -1              |          |
| Oilcalc Ship:  | Oil Explorer    |          |
| Chemcalc Ship: | Stolt Bison     |          |

OILSURVEY 3 covers all usual Oil & Chemical cargo calculations. A comprehensive set of ASTM-IP tables are included together with utilities to complement the tables and refine the calculation. OILSURVEY 3 is controlled by easy to use Menus and Dialogs for easy operation.

OILCALC; Oil cargo survey calculation for Crude, Product or Lube oils using a variety of different units of input and output. Featuring automatic tank naming. Up to 99 Surveys can be stored in internal memory and quickly retrieved. All Surveys can be output as a printed report.

CHEMCALC; Chemical cargo survey calculation given density and temperature. Featuring automatic tank naming. Up to 99 Surveys can be stored in internal memory and quickly retrieved. All Surveys can be output as a printed report. PIPE; Pipeline capacity calculation with built-in table of standard sizes.

INTERP; Ullage table interpolator. WEDGE; Cargo residue calculation. VCF; ASTM-IP tables 6,24 and 54

volume correction. VEF; Vessel Experience Factor calculation with all data stored to memory for later

retrieval. ROOF; Calculation of API, Specific gravity, Density for Shore Tank Floating Roof calculation.

USER DATA; Storage of surveyor's name, company name, Location and Time Zone. ASTM-IP Tables

included are: Tables 5,23,53; Correction of API, Specific Gravity, Density at observed temp to standard temp for Crude (A), Products (B) and Lube (D) oils. Optional Hydrometer correction also featured.

Tables 6,24,54; Computation of Volume correction factor for Crude, Products and Lube oils. Using API@60F, Specific gravity @60F, Density@15C. Table 56; Vacuum to air weight Correction factor. Tables 1,2;

Conversion of Temperatures, Lengths, Areas, Volumes and Weights. Table 3; Conversion from API @60F to

Specific gravity @60F, Density @15C. Table 8; Conversion of API@60F to Pounds per USgal @60F. Table

21; Conversion from Specific gravity @60F to API @60F, Density @15C. Table 26; Conversion of Specific

gravity @60F to Pounds per USgal @60F. Table 51; Conversion from Density @15C

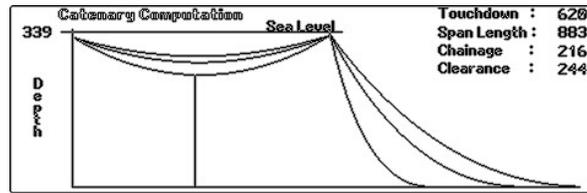
to API @60F, Specific gravity @60F. Table 52; Conversion from Barrels @60F to Cubic metres @15C

using Density @15C.

**Minimum requirements: Psion Series 3/3a/3c/3MX computer with 0.1 MB Disk space free.**

## Marine Programs for the Psion Series 3/3a/3c/3mx & Workabout Computers contd...

### OFFSHORE SURVEY SOFTWARE 3 , By Hydro Projects Ltd (Order Code SS312)



A complete suite of utilities for the offshore surveyor on the Psion Series 3/3a/3c/3mx/Workabout. Full geodetic solutions are carried out to perform Geodetic transformations, datum shifts, multi-pattern fixing and many other standard routines. Fixing methods include range/range, hyperbolic range/bearing, intersection and resection. Other routines include Azimuth from Sun observations, supported catenary computations, pipeline/runline definitions with line calculations based on a point position, tidal calculations for up to one week using harmonic constants from Admiralty tables and velocity of sound in water computations (Utilising one of 4 standard formulas). A further routine for semi-sub rig positioning and anchor cable/chain adjustment for final rig positioning is also provided. All routines can print to either file, serial or parallel printers.

**Minimum requirements: Psion Series 3a/3c/3MX computer with 0.1 MB Disk space free.**

### DRAFTSURVEY 3 by M.Harrison, Master Mariner (Order Code SS305)

```
DraftSurvey 3      12:30:11
Surveyor: David Appleyard
Company: Willoughby Stainton
Port: Dundee
Time Zone: -1
Current Ship: test
Current Survey No: 2
```

For use by Cargo Surveyors and Ships Officers. DRAFTSURVEY 3 uses industry accepted metric and imperial draught survey algorithms throughout and complies with the latest standards for Draught Surveying. DRAFTSURVEY 3 makes extensive use of stored information to keep your work to a minimum.

DRAFTSURVEY 3 offers the following features:

Initial Survey, with calculation of constant and full report.

Final or Intermediate Survey, with full report.

Saving of data to file for each Survey.

Storage of data for up to 10 different ships at any one time. Storage of up to 99 draught surveys for each ship.

Rapid interpolation of hydrostatic data entered by hand from ship's tables.

Storage of hydrostatic data and automatic interpolation for any chosen ship; particularly useful for ship's officers and for surveyors who have regularly calling ships.

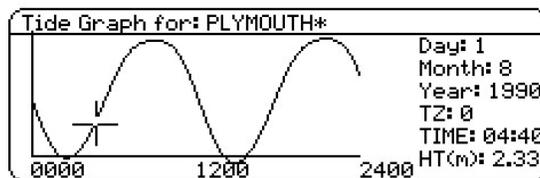
Survey data is shown as a series of "pages", allowing you to easily review or alter any value, with automatic re-calculation. Printing of reports for each Survey to any standard printer; making "on-site" reports possible with a standard portable printer. Printing of reports to word-processor file for editing in the series 3/Workabout's inbuilt word-processor or uploading to PC or Macintosh word-processor or via E-Mail (Electronic Mail).

Saving of reports to file for uploading to our PC DRAFTSURVEY program for analysis and storage. Extensive help is available throughout the program.

**Minimum requirements: Psion Series 3/3a/3c/3MX computer with 0.1 MB Disk space free.**

## Marine Programs for the Psion Series 3/3a/3c/3mx & Workabout Computers contd...

**VOYAGEMASTER 3 by M.Harrison, Master Mariner (Order Code SS308 for European Version, SS309 for USA Version).**



An easy to use Tidal Calculation & Voyage planning program, VOYAGEMASTER 3 is written to take full advantage of the Series 3/3a/3c/3mx/Workabout's capabilities. Menus give easy selection of all functions and dialogs make entry of data easy. VOYAGEMASTER 3 calculates the Tidal heights for over 600 European Ports (European Version) or over 200 USA Ports (USA Version) for any day from 1900 to 2089, no tables are needed. As well as the major Ports, VOYAGEMASTER 3 includes many minor Ports; ideal for when local Tide Tables are not available. For Ship's Officers, Yachtsmen, Ship Pilots, Fishermen, Marine Biologists, Civil Engineers, Bird Watchers etc VOYAGEMASTER 3 is ideal. VOYAGEMASTER 3 offers the following features:

Data for for over 600 European Ports, from the Azores to Norway (European Version) or for over 200 USA Ports (USA Version).

Output in either Feet or Metres.

Graphic Tidal Curve display for a full day at any selected Port.

High and Low water heights and times, Sunrise, Sunset & Moon quarters.

Single tide height prediction for any time with rising or falling indication.

View Tidal heights for any period during the day at 10 minute intervals; optional export to the Series 3

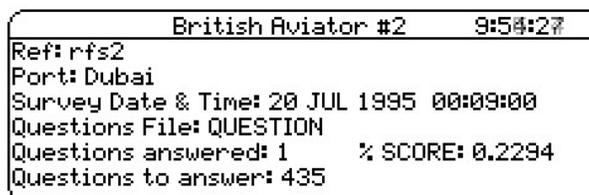
Wordprocessor. AUTOMATIC mode; automatically shows current time and tide height.

You work in the time shown on your watch - not the time zone chosen by the Tide tables so no more having to remember to add or subtract an hour! Add any Port yourself outside those stored; for World wide predictions.

Storage of Navigation Waypoints and calculation of courses and distances.

**Minimum requirements: Psion Series 3/3a/3c/3MX computer with 0.1 MB Disk space free.**

**SHIPCHECK 3 by M.Harrison, Master Mariner (Order Code SS306)**



SHIPCHECK 3 turns your Psion 3/3a/3c/3mx/Workabout into an "electronic check list" for checking the whole ship or any set of equipment or stores onboard. SHIPCHECK 3 does away with all the old, often only half-readable, paper check lists found in many marine activities and provides an up-to-date but affordable and compact method for carrying out surveys.

SHIPCHECK 3 offers the following features:

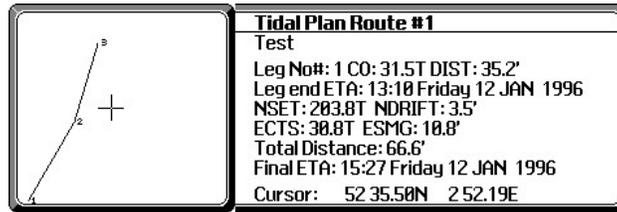
Supplied complete with over 400 questions for general ship checking; used in owner's and charterer's surveys.

You can create and edit question/survey files; as many as your Psion can store, for everything from lifeboats to ship's stores. Saving of data to file for each Survey. Optional Printing of survey question lists to paper for use by other personnel or in particularly dirty areas. Survey questions are shown on a series of "pages", allowing you to easily review or alter any value. Automatic calculation of percentage of questions correct and number of questions still to answer. Printing of reports for each Survey to any standard printer; making "on-site" reports possible with a standard portable printer. Printing of reports to plain text file for editing in the series 3's inbuilt word-processor, transmission by E-Mail (Electronic Mail) or editing in any IBM PC or Macintosh word-processor. Help is available throughout the program.

**Minimum requirements: Psion Series 3/3a/3c/3MX computer with 0.1 MB Disk space free.**

## Marine Programs for the Psion Series 3/3a/3c/3mx & Workabout Computers contd...

### TIDESTREAM 3 developed by Dolphin for Prosser Scientific Instruments Ltd (Order Code SS311)



An easy to use Tidal Calculation, Tidal Stream & Voyage planning program, TIDESTREAM 3 runs on the Series 3/3a/3c/3mx and Workabout computers. Menus give easy selection of all functions and dialogs make entry of data easy. TIDESTREAM 3 calculates the Tidal heights for over 600 European Ports for any day from 1900 to 2089, no tables are needed.

TIDESTREAM 3 offers the following features:

Input of position from the keyboard, Yeoman electronic chart plotter or GPS Navigation receiver with NMEA output.

Tidal Stream predictions with inbuilt data covering Northern France to the Shetland Isles.

Tidal Route planning, with best time to start.

Graphic display of selected Route and position.

Tidal Height prediction for over 600 European Ports, from the Azores to Norway.

Graphic Tidal Curve display for a full day at any selected Port.

High and Low water heights and times, Sunrise, Sunset.

Single tide height prediction for any time with rising or falling indication.

View Tidal heights for any period during the day at 10 minute intervals; optional export to the Series 3

Wordprocessor. AUTOMATIC mode; automatically shows current time and tide height.

You work in the time shown on your watch - not the time zone chosen by the Tide tables.

Add any Port yourself outside those stored; for World wide predictions.

Storage of Navigation Waypoints and calculation of courses and distances.

Storage of Routes and calculation of courses and distances and ETAs.

**Minimum requirements: Psion Series 3a/3c/3MX computer with 0.1 MB Disk space free.**

### EN ROUTE 3 - Route Planning Software (Order Code SS313)

**(Program provided on SSD)**

A Comprehensive route planning package that can plan individual routes across Europe if required or focus on individual countries. Preferred routes, speeds, stopping places can all be configured by the user. Also supports NMEA GPS interface, Typical full UK map would take 2Mb of storage space.

## AIS Receivers, Transponders and AIS Accessories

### SLR200 AIS Receiver (Order code HASLR200)



The SLR200 is a low cost dual channel AIS receiver with superior performance, (equivalent to that of the receiver of a Class "A" AIS transponder). Designed specifically for the Commercial shipping, Vessel Monitoring, Leisure Boat and Fishing Boat Markets. It enables ships, boats and shore stations to receive AIS (Automatic Identification System) information being transmitted from vessels over 300 tons that have been required to have Class "A" AIS transponders since November 2004, as well as vessels using the newer Class "B" AIS transponders, like our CSB200. Connected to a compatible on board PC running our software, the information can be displayed on screen giving the user a visual interpretation of the name, position, course, speed and many other details of vessels within VHF range (see our PC Seamaster /Ship Tracker / Chartplanner software for more details). This information is updated every 3 seconds to 6 minutes depending on speed and rate of turn, enabling the track of the vessels in range to be plotted. The SLR200 can be used ashore or mounted on a Ship or Boat. The output from the vessel's GPS receiver can be connected into the SLR200 so that own vessel's position is constantly updated. The SLR200 requires a 12/24vDC power source, connection to a PC via the serial port, and connection to an external VHF aerial. Electrical: Power supply range: 9 - 30 Volts DC (Suitable for 12 or 24v systems). Power consumption : 400mW . Physical: Length: 140mm, Width: 120mm, Height: 50mm Weight: 600g. Mounting: Trunnion bracket (supplied). Connectors: Antenna: BNC . Output port: 9 pin D socket . Power: 2 pole plug. Supplied with cables for power supply, PC connection and GPS/NMEA connection.

### SLR200G AIS Receiver (Order code HASLR200G)

The SLR200G looks identical to the SLR200 but combines a 12 channel GPS receiver with the SLR200 dual channel AIS receiver with superior performance, (equivalent to that of the receiver of a Class "A" AIS transponder), designed specifically for the Commercial shipping, Vessel Monitoring, Leisure Boat and Fishing Boat Markets. It enables ships, boats and shore stations to receive AIS (Automatic Identification System) information being transmitted from vessels over 300 tons that have been required to have Class "A" AIS transponders since November 2004, as well as vessels using the newer Class "B" AIS transponders, like our CSB200. Connected to a compatible on board PC running our software, the information can be displayed on screen giving the user a visual interpretation of the name, position, course, speed and many other details of vessels within VHF range (see our PC Seamaster /Ship Tracker / Chartplanner software for more details). This information is updated every 3 seconds to 6 minutes depending on speed and rate of turn, enabling the track of the vessels in range to be plotted. The SLR200G can be used ashore or mounted on a Ship or Boat. The inbuilt GPS output is automatically mixed with the AIS data output to give a single stream of output data, with own vessel's position being constantly updated. The SLR200 requires a 12/24vDC power source, connection to a PC via the serial port, and connection to both a external VHF antenna and a external GPS antenna. Electrical: Power supply range: 9 - 30 Volts DC (Suitable for 12 or 24v systems). Power consumption : 400mW . Physical: Length: 140mm, Width: 120mm, Height: 50mm Weight: 600g. Mounting: Trunnion bracket (supplied). Connectors: VHF Antenna: BNC . GPS Antenna: TNC. Output port: 9 pin D socket . Power: 2 pole plug. Supplied with cables for power supply, PC connection and NMEA connection.

## AIS Receivers, Transponders and AIS Accessories cont'd

### SLR200N AIS Receiver (Order code HASLR200N)



The SLR200N is a low cost dual channel Ethernet AIS Receiver, designed specifically for the larger vessel or for shore side monitoring. It enables ships and boats sailing in busy shipping lanes or shore side monitoring stations to receive AIS (Automatic Identification System) information being transmitted from Class A transponders, as fitted to vessels over 300 tons, and non-mandatory Class B transponders, as fitted to small commercial and leisure craft. Connected to a PC or Router, via the industry standard RJ45 connector, the SLR200N enables AIS data to be shared on a local network or accessed from a remote location. When connected to a PC running a compatible AIS program information can be displayed giving visual interpretation of the name, position, course. The Dual Channel Parallel receiver ensures that you receive the most up to date information regarding vessels movements providing accurate plotting of vessels. The information that can be received by the SLR-200 is as follows: Name of vessel, Destination, Heading, Navigational status, Call Sign, Speed (SOG), Rate of Turn, Vessel dimensions, Type of vessel, Course (COG), Position, MMSI Number, IMO Number The SLR200N requires a 12/24vDC power source, connection to a PC or Network via the in-built RJ45 connector and connection to an external VHF aerial (available as a optional extra). The SLR200N is supplied with a CD allowing the user to reconfigure the network interface, assign a specific IP address, access the unit via its internal web server, and a Com Port redirector utility to allow data to be accessed via a virtual COM Port. A power cable and user manual are also included. The SLR200N is a compact dual channel synthesized VHF receiver designed to receive and decode transmissions from vessels fitted with Class "A" and Class "B" AIS transponders as well as AIS equipped Aids to Navigation such as Lighthouses and Buoys. Power supply range: 9 - 30 Volts DC (Suitable for 12 or 24v systems). Power consumption : 400mW. Frequency: AIS 1 161.975 MHz, AIS 2 162.025 MHz. Channel spacing: 25KHz. Sensitivity: -112dBm. Demodulation: GMSK. Data Rate: 9600. Antenna Impedance: 50 ohms. Length: 140mm, Width: 120mm, Height: 50mm Weight: 600g. Mounting: Trunnion bracket. Connectors: Antenna: BNC. Output port : RJ45 socket. Power: 2 pole plug. Ethernet 10Base-T or 100Base-TX (Auto-sensing). Protocols: TCP/IP. Baud Rate: 38400 (default)

### SLR200NG AIS Receiver (Order Code: HASLR200NG)

The SLR200NG differs from the SLR200N only in that it has a in-built GPS receiver. Power supply range: 9 - 30 Volts DC (Suitable for 12 or 24v systems). Power consumption : 400mW. Frequency: AIS 1 161.975 MHz, AIS 2 162.025 MHz. Channel spacing: 25KHz. Sensitivity: -112dBm. Demodulation: GMSK. Data Rate: 9600. Antenna Impedance: 50 ohms. GPS Receiver: Internal high performance GPS receiver, providing own position information in the output data sentences. Length: 140mm, Width: 120mm, Height: 50mm Weight: 600g. Mounting: Trunnion bracket. Connectors: Antenna: BNC. Output port : RJ45 socket. Power: 2 pole plug. GPS: TNC. Ethernet 10Base-T or 100Base-TX (Auto-sensing). Protocols: TCP/IP. Baud Rate: 38400 (default)

## AIS Receivers, Transponders and AIS Accessories cont'd

### AIS-2 USB and AIS-2 NMEA Receivers (Order codes: HAAIS2USB & HAAIS2NMEA)

The AIS-2 Receiver is a Dual Channel Parallel AIS Receiver. It has two AIS receivers monitoring both AIS channels at the same time and decoding both channels simultaneously. Unlike many AIS receivers that claim to be dual channel the AIS-2 is a true parallel AIS receiver, ensuring that you receive the most up to date positions and information of all vessels around you.

The AIS-2 is available in 2 different models: The **AIS-2-USB receiver** is designed for use with a PC and is powered by the USB port. The **AIS-2-NMEA receiver** is designed for use mainly with Chartplotters is powered by the vessel's 12 or 24 volts DC power supply.



Installation is quick and simple. The AIS-2-USB is simply connected to the USB port of a PC and the supplied driver installed from CDROM. The AIS-2-NMEA requires a 12/24vDC power source, connection to a Chartplotter. Both AIS-2 models require connection to an external VHF aerial ( available as a optional extra). A user manual is also included.

Power supply range: 9 - 30 Volts DC (Suitable for 12 or 24v systems)

Power consumption: Low power drain.

Frequency:

AIS 1 161.975 MHz, AIS 2 162.025 MHz

Antenna Impedance: 50 ohms

Length: 120mm, Width: 85mm, Height: 37mm Weight:

Mounting:

Connectors:

Antenna: BNC

Power: 2 pole plug (AIS-2-NMEA only)

Baud rate: 38.4KB (default)

Format: NMEA 0183

Output Message: VDM

## AIS Receivers, Transponders and AIS Accessories contd...

### CSA300 AIS Class A Transponder (Order code HACSA300)



The CSA 300 is a very compact Class A Transponder suitable for all vessels from large commercial ships, super yachts, fishing vessels, pilot boats, through to leisure boats. The transceiver and the high contrast monochrome display are both contained in a single robust enclosure. Connected to an external VHF antenna and its GPS antenna the CSA-300 transmits its own position and vessel data, as well as receiving information from other AIS transponders. Designed and IMO approved to meet the requirements of large commercial vessels it is equally suitable for smaller commercial, fishing and leisure craft.

Features include:

- Very compact design and simple installation.
- Automatic transmission of vessels own position, speed and heading to other vessels within VHF range.
- The ability to plot the progress, changes in heading and speed of other AIS vessels, AIS navigation marks, AIS SARTs on a Chart Plotter, Radar or PC program. With reception from both Class A and Class B vessels, AIS Aids to Navigation, AIS Base Stations and AIS SARTs.
- Receive and Transmit Text, Binary and Safety Messages.
- Automatic transmission, dependent on speed and rate of turn.
- A method of monitoring the position, speed and heading of other AIS vessels within VHF range.
- Text and (simple) graphics display of vessel details received.
- Simple access to data and menus with the rotary control
- Inbuilt AIS Pilot Plug and RS232 (PC) interfaces plus compact external junction box.
- Internal 16 channel GPS receiver and three VHF radio receivers.

Both AIS Pilot plug and RS232 (PC) interface are built into the unit. Where needed, the included external remote junction box gives connections for output to electronic chart displays, Radar, and other AIS displays. The junction box also provides connections for external inputs (Heading, second external GPS etc) where these are required.

Included in the box with the CSA 300 unit are: Data cable, Junction box, Power cable Trunnion bracket, Panel mount brackets, Fixing screws, User and installation manual, Quick start guide, Support tools CD, Mounting template.

## AIS Receivers, Transponders and AIS Accessories contd...

### CSA300 AIS Class A Transponder (Order code HACSA300) contd...

The CSA300 unit has approvals by : MED Wheelmark, CE European, BSH Germany, FCC USA and is IMO Compliant.

Operating Voltage:12 to 24 VDC

Power Consumption:10 watts average,4.75A peak at 12VDC

NMEA0183 Interface:38.4k baud bi-directional

RS232 Interface:38.4k baud bi-directional

Operating Temperature:-15 °C to +55 °C

VHF Antenna connector:SO-239 (UHF)

GPS Antenna connector:TNC

RS232 Data connector:9 way D type

IEC61162 interfaces & alarm relay:Via 50 way D-type junction box.

Power connector:LTWBB-04PMMS-LC7001

VHF Transmitter:Single

VHF Receivers:Three (two AIS and one DSC channel 70)

Frequency Range:156.025MHz – 162.025MHz

Channel Bandwidth:25KHz

Power Output:41dBm +/-1.5dB

Modulation:25KHz GMSK /25KHz AFSK

Data Rate:9600 bps GMSK & 1200 bps FSK

RX Sensitivity:<-107dBm @20%PER

GNSS (GPS) Receiver: Internal 16 Channel GPS Receiver.

Compliant:FCC,USCG,Type EU,CE,RoHs

Standards and Approvals:IEC60945 Edn.4.0 Environmental requirements

IEC61993-2 Class A Shipborne equipment

IECIEC61162-1/2 Edn.2.0 Digital interfaces

EC61108-1 GPS Receiver equipment

ITU-RM.1371-3 Universal AIS Technical Characteristics

Dimensions:W:210mm ,H:105mm,D:138mm

Weight:1.6 kg

Mounting:Trunnion bracket

## AIS Receivers, Transponders and AIS Accessories contd...

### CSB200 AIS Class B AIS Transponder (Order code HACSB200)

The CSB 200 is a low cost AIS Class “B” Transponder designed specifically for the small Commercial Boat, Fishing Boat and Leisure Markets. It meets the new Class “B” Standard that allows vessels that are not required to fit Class “A” units to voluntarily fit an AIS (Automatic Identification System) transponder. The CSB200 is a compact self contained unit which when connected to an external VHF and GPS antenna will transmit its own vessels position and data, and also receive information from other vessels, shore stations and Navigational aids within VHF range. Connected to a compatible on board PC running a Navigation Program, the information is displayed on screen giving the Captain a visual interpretation of the name, position, course and speed of other vessels.



The CSB200 provides a small vessel with automatic transmission of vessels own position, MMSI, Name, speed and heading to other AIS equipped vessels and shore stations within VHF range. In addition the CSB200 contains a AIS receiver to provide a method of monitoring the position, speed and heading of all other AIS equipped vessels within VHF range

The information that is transmitted by the CSB200 is as follows: Name of vessel, Speed (SOG) , Heading, Call Sign, Position , Vessel dimensions, Type of vessel ,Course (COG), MMSI Number of vessel.

The CSB200 receives both Class "A" and Class "B" AIS transmissions, as well as transmissions from AIS equipped navigational aids and also navigational warnings from shore AIS stations.

The CSB200 is compatible with systems capable of accepting standard NMEA AIS sentences, including our PC AIS Shiptracker for Windows software , PC Seamaster for Windows , PC Chartplanner for Windows and Secure Network AIS Ship Tracker software.

Installation is quick and simple. The CSB200 requires a 12vDC power source, connection to a PC or Network via the serial port, and connection to external VHF and GPS antennas ( separate and combined antennas are available as optional extras). Cables are included for power and connection to a PC or NMEA network, together with a user manual.

Power supply range: 12 Volts DC. Power consumption : 0.5 amps at 12volts DC (6 Watts average). (The unit can be switched to receive only mode if required, using a simple switch).

Output Power: 1W - 4W. Physical: Length: 165mm, Width: 120mm, Height: 50mm Weight: 600g

Mounting: Trunnion bracket. Connectors: VHF Antenna: BNC GPS Antenna: TNC

Output port: 9 pin D socket. Power: 2 pole plug

## **AIS Receivers, Transponders and AIS Accessories contd...**

### **VHF Aerial (Antenna) for the SLR200 /SLR200G AIS Receiver and CSB200 AIS Transponder (Order code HASLRAERIAL)**

A superior quality aerial for the SLR200 /SLR200G /SLR200N/SLR200NG AIS receivers and the CSB200 AIS Transponder. The best one that we have found to date for fitting to ships and boats. The lightweight but strong aerial is a stainless steel waterproof whip design and may be fitted both to ships and boats and to buildings etc on land. Length 0.96 metres, weight 0.15 kilograms. Complete with 20 metres of aerial cable and connector for SLR200 /SLR200G /SLR200N/SLR200NG or CSB200.

### **AG100 GPS Antenna (Order code HAAG100)**

The AG100 is a high performance GPS Antenna, particularly suited for use with the CSA200 AIS Transponder, CSB200 AIS Transponder, SLR200G AIS receiver, SLR200NG AIS receiver and other similar products. Supplied complete with mounting base and 10 metre RG58 antenna cable.



### **Mains Power supply for SLR200 /SLR200G AIS Receiver (Order code HASLR200POWER)**

Mains power supply (110 to 240 volts AC input) for the SLR200, SLR200G and SLR100 AIS receivers, with a output of 12 volts DC. Fitted with the special power connector for the SLR200, SLR200G and SLR100, supplied with both European and UK mains plugs (mains plug can be removed and replaced by another type of plug if required).

### **Serial AIS Pilot Plug Cable (Order code HA25AISCABLE)**

A lightweight cable (can be carried in a jacket pocket) , to connect to the Pilot Plug provided on Class A AIS units fitted onboard ships. The cable converts the AIS data output from the Pilot plug into the correct protocol for input into the serial port of a standard PC Laptop or Handheld computer. (RS232 serial data). The cable has a standard Pilot plug connector at one end and a standard 9 pin serial port connector at the other end. The cable is powered from the serial port and requires no batteries. The cable will provide both AIS target data and also own ship's GPS position directly from the ship's AIS unit. Standard cable length is 2.5 metres, with other cable lengths from 1 to 100 metres available to order. Weight 30 grams. Supplied in a zipped carry pouch, the cable can also be used with our UC232A USB to Serial converter if the PC does not have a serial port. (See also our USB AIS Pilot Plug Cable).



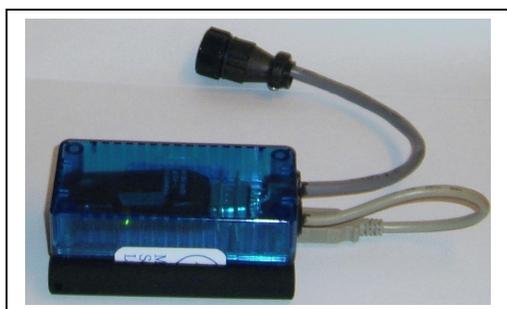
## AIS Receivers, Transponders and AIS Accessories contd...

### USB AIS Pilot Plug Cable (Order Code HA26USBAISCABLE)



A lightweight cable (can be carried in a jacket pocket) , to connect to the pilot plug provided on Class A AIS units fitted onboard ships. The cable converts the AIS data output from the pilot plug into the correct protocol for input into the USB port of a standard PC laptop or desktop computer. The cable has a standard pilot plug connector at one end and a standard USB connector at the other. The cable is powered from the USB port and requires no batteries. The cable provides both isolation and surge protection in order to protect the connected equipment. The supplied software drivers install the cable as a virtual COM port on your PC, for easy use. The cable can be used with our PC Seamaster for Windows or PC AIS Ship Tracker for Windows software to provide both AIS target data and also own ship's GPS position directly from the ship's AIS unit. Standard cable length is 1.2 metres overall. The standard cable can easily be extended by using low cost USB extension cables or we can supply other cable lengths to order. Weight 25 grams. The cable is supplied in a zipped carry pouch and supplied with software drivers for Windows 2000, XP,Vista ,Windows 7 and Windows 8.

### BLUETOOTH WIRELESS AIS Pilot Plug Cable (Order Code HA27BTAISCABLE)



A compact and lightweight Bluetooth wireless unit (can be carried in a jacket pocket) , to connect using a Bluetooth wireless transmission to the pilot plug provided on Class A AIS units fitted onboard ships. The cable converts the AIS data output from the pilot plug into the correct protocol and then transmits it using the Bluetooth wireless transmission to the Bluetooth wireless card built into most portable computers, (low cost Bluetooth USB dongles are also available if your computer does not have inbuilt Bluetooth). The Bluetooth wireless unit is a Class 1 Bluetooth unit, with a potential range of 100 metres if your computer is also fitted with a Class 1 unit. The Bluetooth wireless unit is powered by a rechargeable battery which has a typical life of some 20 hours before it needs recharging again, full charging accessories are included for recharging the unit from your computer or from mains power. The unit can also be powered directly from your computer if battery power is not available. Standard cable length is 1.0 metres (other lengths available to order). The unit is supplied complete with a USB cable for recharging the battery from your computer, a mains adaptor (110-240 volts AC) for recharging the battery from mains power, a zipped clear carry case and a user manual. No software drivers are needed. Unit weight 80 grams. Spare batteries are available.

## NMEA Accessories

We Provide devices produced by Actisense to connect, buffer and switch between your NMEA devices.

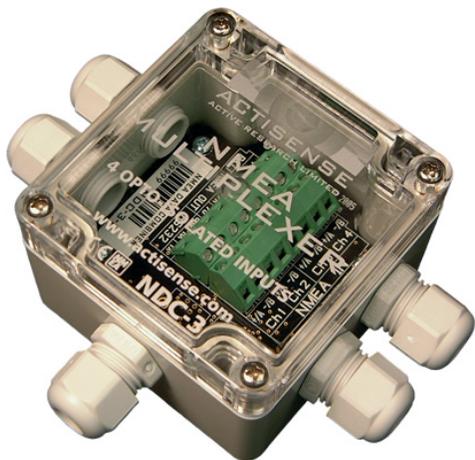
### **NDC2A NMEA Data Combiner (order code HANMNDC2)**



Combine / Multiplex all NMEA devices together. Perfect solution to this otherwise impossible task. A PC can read and add to the combined data stream.

- 4 NMEA 0183 data inputs, NMEA and RS232 outputs
- NMEA 2000 port converts from NMEA 0183
- Configurable Inclusion List & Port Baud rates

### **NDC3A NMEA Data Combiner (Order Code HANMNDC3)**

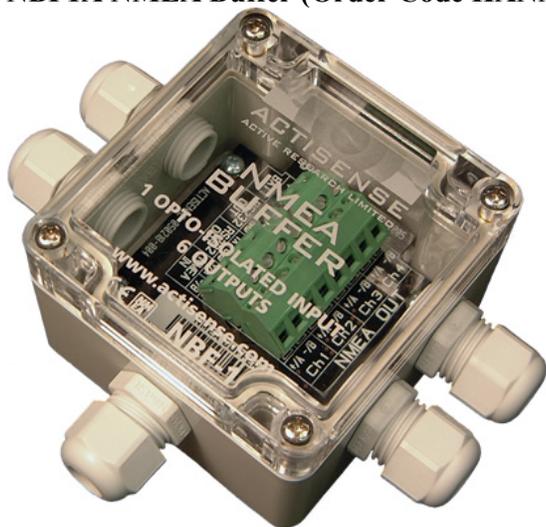


Compact design to Combine / Multiplex all NMEA devices together. Perfect solution to this otherwise impossible task. A PC can read and add to the combined data stream.

- 4 NMEA 0183 data inputs, NMEA and RS232 outputs
- Fixed Port Priorities and Baud rates
- Very low current consumption

## NMEA Accessories (Contd.)

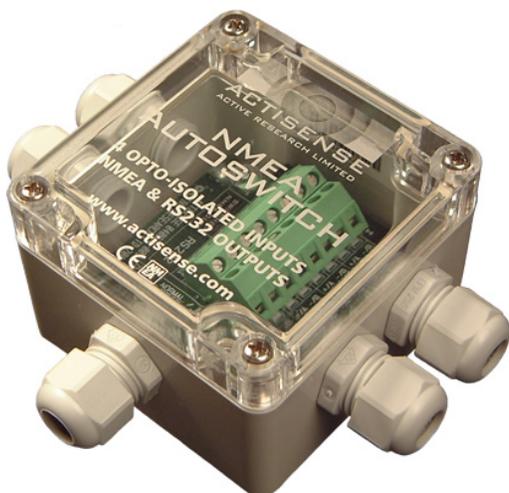
### **NBF1A NMEA Buffer (Order Code HANMDB1)**



Galvanic Opto-isolate and buffer NMEA 0183 data for distribution to multiple NMEA devices around a vessel.

- \* 1 Opto-isolated NMEA 0183 input
- \* 3 NMEA 0183 / RS422 outputs
- \* 2 NMEA 0183 / RS232 outputs
- \* Wide input voltage range 8-35 volts

### **NSW1A NMEA Auto Switch (Order Code HANMAS1)**



Automatically switches highest priority NMEA input device (out of 4 devices). Intelligent algorithm with 3 processing levels switches the NMEA device with best data to NMEA and RS232 outputs.

- \* 4 NMEA 0183 data inputs, NMEA and RS232 outputs
- \* Fixed Port Priorities and Baud rates

## **HP iPAQ Pocket PCs**

### **iPAQ h1930 (Order Code IPAQ01)**



Entry level refinement of the iPAQ 1910, the 1930 runs Windows Pocket PC 2003 Professional Edition on a high resolution back lit colour display. The 1930 features programmable button and onboard sound capabilities, together with a stylus-operated touch screen for precision and ease of use. It comes with a range of software for on the move computing:

- E-mail / e-mail attachments
- Contacts/agenda/tasks
- Recorder with shortcut button
- Note taker
- Microsoft Internet Explorer
- Files explorer
- Pocket Excel
- Pocket Word
- Microsoft Reader
- Microsoft Windows Media Player
- Communication / other PDAs
- Safe store backup software

#### **Specifications**

- Updated Samsung 203MHz processor
- 64 MB RAM
- 240x320 pixel display in 16bit colour, with adjustable back-light
- Microphone, speaker, 2.5 mm stereo audio jack, MP3 stereo through audio jack
- Infrared data transfer at up to 115Kb/sec
- Lithium ion battery lasting up to 10 hours
- Length: 113.3 mm (4.46 inches) Width: 69.8 mm (2.75 inches) Depth: 12.8 mm (0.50 inches)
- Weight : 124 g (4.37 ounces)

#### **In the box**

- HP iPAQ Pocket PC h1900 series with Slim removable battery
- USB synchronization cable
- AC adapter
- Charging adapter (tethered to the AC adapter)
- *Getting Started Guide*
- 2.5 mm Stereo Earpiece HP iPAQ Pocket PC Companion CD (Outlook 2000 and synchronisation software)

### • **Psion Digital Pocket Computers**

## **Psion Series 5mx Pocket Computer (Order Code HS5MX2)**



The Psion Series 5mx offers many of the features associated with desktop PCs but, unlike other palm top products, does not need a PC companion to provide this high level of functionality. The Series 5mx is the complete mobile office. It is supplied with the following inbuilt programs; Word Processor, Spreadsheet, Sketch (Drawing program), Agenda & Diary, Database, Sound Recorder & Playback, Calculator, Time (Alarms and World city display with Time zones and dialling codes and distances), programming (OPL language). Also included are a cable and PsiWin software on CD-ROM, for automatic synchronisation and transfer between a Windows PC and the Series 5mx. The Series 5mx offers a Laptop-style touch-type expanding keyboard and full VGA-width and a half VGA in height (640 by 240 pixels) making it the largest available on a handheld computer. The screen is touch-sensitive to allow users to select on-screen items and navigate using the pen which is supplied, and has sixteen grey scales and is backlit. The Series 5mx comes complete with PsiWin 2 which provides instant compatibility with PC's running Windows Explorer. The connection works at high speed: data transfer is up to 115kbps, and when you start the link the S5mx appears as a computer on your PC's desktop. You can drag & drop files between S5mx and PC drives or folders, and they are automatically converted to the right format for you. You can also backup all your Series 5mx files onto your PC or local area network and easily restore files and folders. An application called Psion Print allows you to print directly from your Series 5mx to any printer connected to your PC or network using TrueType fonts. Dock with your PC and PsiWin will synchronise your agenda & contacts. Personal appointments can be kept private, and you can control which entries are synchronised by type or time. PsiWin 2 will keep more than one copy of your files. Dimensions of the Series 5mx are 170\*90\*23mms, it's weight is 354 grams and it is fitted with 16 MB RAM internal memory, the 32-bit RISC-based ARM710T RISC-CPU processor runs at 36MHz. Battery life is typically 1 month on two standard AA batteries.

## **Psion Series 5/5mx Accessories**

### **Series 5 Mains Adapter – (Order Code HA501)**

Provides power for the Series 5 directly from 220-240 Volt AC Mains.

### **Series 5 Leather Exec/Wallet Case (Order Code HA5005)**

A stylish leather case providing excellent protection for the Series 5.

### **Compact Flash Memory for Series 5 (Order Code HA5001)**

Safe storage & expansion for files. Freed space is instantly re-usable.

### **Series 5 Parallel Link (Order Code HA5002)**

Links the Series 5 with any standard parallel printer. Printer 2 drivers 2 for all common printer types are built into the Psion Computers. Together with a Psion Computer and any portable printer this makes an ideal compact package for letters, reports etc.

### **Psion 56K Travel Modem (Order code HA5006)**

Only pocket sized, it runs for up to an incredible 4 hours of continuous use on 2 x AA batteries. Just plug the modem into a standard telephone socket and point it at computer's infrared port. You can send and receive email or connect to the World Wide Web at a blistering 56k.

### **Psion 5 Waterproof Cases**

The Jumbo Case (Order Code HA5007) measures 345mm x 340mm enabling the users to operate their opened Psion whilst still inside the case, the case is supplied with a carrying handle and an adjustable shoulder strap. Also available is the Waterproof Wallet (Order Code HA5007) measuring 265mm x 130mm, supplied with a carry cord. Both cases are clear fronted with a quick release clip and are waterproof to a depth of 10 metres (33 feet).

### **Psion 5 in car power cord (Order Code HA5004)**

This is a simple curly-cord Cigarette lighter powered device. It is suitable for all 12 volt operated vehicles and conforms to EMC regulations.

## **Psion Revo 8mb computer (Order code HREVO4)**



The Psion Revo is a slim, stylish & lightweight palmtop computer measuring only 157 x 79 x 18mm and weighing a mere 200 grams making it compact enough to slip easily into a shirt or jacket pocket. Speedy too! The Revo boasts an ARM 710 processor running @ 36MHz. The ingenious, patented hinge mechanism reveals a crystal clear, touch sensitive LCD display (480 by 160 pixels non-backlit) and state-of-the-art membrane keyboard. Revo can be connected to a PC, mobile phones and the internet.

It is supplied with the following inbuilt programs; E-mail , Web browser, Word Processor, Spreadsheet, Agenda & Diary, Database, Calculator, Time (Alarms and World city display with Time zones and dialling codes and distances), programming (OPL language). Also included is PsiWin software on CD-ROM, for automatic synchronisation and transfer between a Windows' PC and the Revo. Revo comes complete with a PC docking cradle, power adaptor & built in re-chargeable batteries. It provides fast communications through RS232 serial connector and via infrared to other IrDA-enabled devices. The embedded rechargeable batteries last approximately 2 weeks on one charge.

### **Psion REVO accessories**

#### **Psion 56K Travel Modem (Order code HA5006)**

Only pocket sized, it runs for up to an incredible 4 hours of continuous use on 2 x AA batteries. Just plug the modem into a standard telephone socket and point it at Revo's infrared port. You can send and receive email or connect to the World Wide Web at a blistering 56k. Psion.net also provides access to over 2 million pages of information optimised for your Revo's screen, containing all the latest news, views and information.

#### **Revo Carry Case (Order code HAREVO4002)**

A well-designed small case which is durable and ultra-smart to keep your Revo safe and sound.

#### **Extra Docking Station and Power Adaptor (Order code HAREVO4003)**

If you use more than one PC, the spare docking station is a practical way to keep all your information backed-up and up-to-date. The Revo's batteries are being recharged whilst in the docking station.

#### **Universal Power Adaptor (Order code HAREVO4004)**

This adaptor is a multi-voltage, multi-pin power supply that can be used just about anywhere in the world.

#### **Infrared Printer Pod (Order code HAREVO4005)**

This convenient device connects to a standard parallel port, allowing virtually any printer to work via infrared. Simply beam your documents directly to the pod from Revo and watch your words and graphics print out.

#### **Extra Styli (Order code HAREVO4006)**

A pack of 3 extra stylus in case you need a spare.

**Psion Series 3C/3MX Pocket Computer.** (Order Code HS3MX1)



A superb and very "user friendly" pocket computer, with a high-speed processor , excellent screen and extensive built in software. It has a 2Mb memory to hold over 500 pages of text. An excellent screen shows up to 80 characters x 17 lines of information. Functions are selected by Icons on the graphics screen and on screen help is provided for all functions.

The built in software comprises:

- MICROSOFT WORD compatible Word-processor (also exports to other Word-processors).
- A Database which you can configure yourself.
- LOTUS 123 compatible Spreadsheet.
- Diary and Agenda with Alarms.
- Address book & jotter application for note taking
- Clock and Alarms.
- World Times, World Map & Dialling Codes.
- Calculator.
- Write your own programs in C or with the built-in rapid application development language OPL.
- Sound File Editor.
- File Manager.
- Infrared communications with printers and other Series 3mx/c or Siena Machines.
- Built in spellchecker.
- Swap files with PC's using the optional PsiWin 2 package.

Two disk slots are provided for plug in program or memory cards up to a maximum 4 megabytes each. With the optional parallel link the computer will print directly from any industry standard printer. The optional PSIWIN 2 serial link and software CD allows easy file transfer and conversion to and from IBM compatible and Apple Macintosh computers and gives e-mail (electronic mail) facilities when used with a suitable modem. Sound recording and playback facilities are also built in. A built in tone dial loudspeaker will dial telephone numbers stored in the database. All models are supplied with a comprehensive user guide. Dimensions 165\*85\*22 mms, weight 275 gms. Power supply 2 standard "AA" size batteries with 40 hours of usage time, the Psion also has a single back-up cell. NOTE: The computers are refurbished Series 3C and Series MX models, refurbished using genuine Psion spare parts and in "as new" condition, with 1 year warranty.

## Psion Series 3a, 3c, 3mx Computer Accessories.

### PsiWin 2 - PSIWIN Cable & Communications Software for Series 3mx/3c (Order Code HA310)

This package provides excellent value for linking your Psion to a PC or serial printer or modem. The package comprises: A Serial link lead with 9 pin connection & PsiWin CD. PsiWin 2 makes your Psion compatible with Microsoft, Lotus, Corel, WordPerfect, Novell, Borland & other Windows software. A "My Psion" icon appears on your Windows desktop, alongside "My Computer". Simply drag and drop files between your palmtop and your PC. Features include:

File Transfer – just drag & drop to transfer office files between your PC and your Psion.

More Features - quick access Psion icons, double click 'My Psion' icon to explore your Series 3 from your PC. Instant backup or synchronisation by double clicking 'Backup' and 'Synchronise' icons.

Print – directly to your PC's printer without having to move the document onto your PC first.

Synchroniser – dock with your PC, and PsiWin 2 will synchronise your agenda & contacts .

Privacy – personal appointments are kept private, control which entries are synchronised by type or time.

Backup – dock with your PC, and PsiWin 2 will make a safe copy of all your information.

Psion 3 Parallel Link (Order Code HA308 for 3a, HA309 for 3c/3mx) Links the Series 3 with any standard parallel printer. Printer drivers for all common printer types are built into the Psions. Together with a Psion Computer and any portable printer this makes an ideal compact package for letters, reports etc. Two different models are available; the Series 3a version connects the Series 3,3a & Workabout Computers. The Series 3c version connects the Series 3c & 3mx.

Psion 3 Solid State Memory Disks. Two SSDs may be fitted to the Series 3/Workabout computers at any time. They provide unlimited memory potential and complete data safety. SSDs are either Flash (requiring no battery) or RAM (with inbuilt lithium battery back up). Available in capacities between 128KB (kilobytes) and 4 MB (megabytes).

Psion 3 mains adapter (Order Code HA301) Provides power for the Series 3/3a/3c/3mx/Workabout\* computer directly from 220-240 Volt AC Mains. (\* a LIF connector is required in addition for the Workabout only).

Psion 3 case. A stylish leather case providing excellent protection for a folded Psion Series 3/3a/3c/3mx computer and storage for three SSD disks.

### Psion 3 Waterproof Cases

The Jumbo Case (Order Code HA314) measures 345mm x 340mm enabling the users to operate their opened Psion whilst still inside the case, the case is supplied with a carrying handle and an adjustable shoulder strap. Also available is the Waterproof Wallet (Order Code HA315) measuring 265mm x 130mm, supplied with a carry cord. Both cases are clear fronted with a quick release clip and are waterproof to a depth of 10 metres (33 feet).

PsiMail Internet (Order Code HA601) This provides utilities for email, the internet and worldwide web browsing. You will need an internet account and a modem. The email facility provides a personal internet email address, allowing you to exchange mail with attached files and documents with anyone with an email address. The web browser allows the Psion to work just like Netscape Navigator or Internet Explorer and understands HTML level 3.2 and most commonly used web standards. PsiMail will work with the travel modem, PC card modem/adaptor and desktop modems (requires PsiWin).

## **Psion-Teklogix Netbook Pro, handheld computer (Order Code HNET128MB)**



Improved and updated version of the Psion-Teklogix Netbook.

Unparalleled connectivity and expansion capabilities mean the NETBOOK PRO can be tailored to the unique needs of each customer. Data transfer and peripheral connectivity is achieved via the USB Master, RS-232 and IrDA ports. Expansion and/or connectivity is delivered via the Compact Flash, SDIO and PCMCIA Card Slots. Based on industry-standard Windows CE.NET and Intel XScale architecture, the NETBOOK PRO ensures seamless application development and integration into enterprise back-office systems. The advanced networking and security protocol support of Windows CE.NET make it the ideal operating system choice for mobile computing devices. Application development is simple through SDK tools and popular development environments such as Visual Studio.net and JEM-CE JAVA virtual machine. About half the size of a typical laptop, the NETBOOK PRO is both portable and lightweight yet delivers a full keyboard and a large, daylight-readable TFT SVGA 800 x 600 colour touch display. Additional features such as instant on and long battery life combine to deliver a computing device that is ideal for mobile enterprise applications. The specification of the NETBOOK PRO is significantly improved over the older NETBOOK, considerably more RAM, 128MB, and a faster processor at 400MHz provide greater functionality allowing the NETBOOK PRO to support a wider range of applications, making the machine an excellent multifunction machine. The upgraded display provides greater clarity and flexibility, while the new connectivity features allow you to access the rest of the world wherever you are. The NETBOOK PRO provides a competitive middle ground between the smaller Psions and larger PC based laptops, giving you power and flexibility without excessive complexity on the move.

### **Dimensions for Netbook Pro**

- Maximum Overall Dimensions: 235 x 184 x 35mm / 9.25 x 7.24 x 1.38"
- Weight: 1100g / 2.95lb

### **Psion Netbook Pro Accessories**

- Car cigarette lighter adapter (12v DC power supply). Allows the Netbook Pro to be charged via a vehicle cigarette lighter.

## Psion-Teklogix Workabout Handheld Computer



**Psion Workabout MX handheld computer (Order Code HWBMX2MB3)** A powerful low cost handheld computer for Commerce, Business and Industry, the WORKABOUT is designed to put desktop computing power into the hands of everyone who works away from a desk. Although lightweight and compact, the Workabout is strong enough to withstand wear and tear (it can be dropped harmlessly from one metre onto concrete) and is weatherproof, working happily in extremes of heat and cold. For use in conditions where the other Psion computers are not robust enough such as on the ship's deck or a storeroom, the Workabout is ideal and provides excellent value. The Workabout has a Database, Spreadsheet, multi-function Calculator and OPL programming language built-in and a unique multi-tasking operating environment, and features a high-resolution grey-scale screen which can display a graphical windows interface for complete simplicity of operation. A screen Backlight is fitted as standard, allowing use in all lighting conditions. 2 drives for SSD's (Solid State Disks) will take 2 of our program disks or up to an additional 8 MB of extra memory storage. The Workabout is supplied with 2 MB internal memory. It is also available to special order with built in serial port and barcode connectors. Standard machines provide serial, printer and power connections through the Workabout LIF (Low Insertion Force) connector and holster or docking station, which are specially designed for fast and easy connections.

### Psion Workabout accessories

**Workabout Docking Holster & LIF connector (Order Code HA1W/B)** The docking holster provides secure storage for the WORKABOUT and has fixing holes for mounting on any flat surface. The LIF (Low Insertion Force) connector provided with the docking holster may be used connected to the Holster or on its own and gives connections for serial and parallel (printer) leads, mains power and also allows recharging of batteries if the optional rechargeable battery pack is fitted.

**Workabout Docking Station (Order Code HA2W/B)** provides a means of connecting the WORKABOUT to and communicating with external Peripherals such as a PC, Printer or Modem using an RS-232 interface. The WORKABOUT simply drops into the holster and connects via the low insertion force comms connector. It also provides a fast recharging facility if rechargeable batteries are used.

**Workabout AQ3M Waterproof Case** a clear plastic case which totally protects the Workabout from water and dirt. Both screen and keyboard are easily viewed and operated through the case.

**Workabout rechargeable batteries (Order Code HA3W/B)** A Ni-cad rechargeable battery pack for the Workabout

## Psion-Teklogix Workabout Pro Handheld Computer



**Psion Workabout Pro handheld computer** A powerful low cost handheld computer for Commerce, Business and Industry, the WORKABOUT is designed to put desktop computing power into the hands of everyone who works away from a desk. For use in conditions where the other Psion computers are not robust enough such as on the ship's deck or a storeroom, the Workabout is ideal and provides excellent value.

An evolution of the highly customisable Psion Workabout, the WORKABOUT PRO features a wide range of expansion, radio and data input options augmented by extensive device customisation capabilities through Psion Teklogix hardware and software development kits. This, combined with the enterprise-focused, highly customisable Windows CE .NET operating system, allows the WORKABOUT PRO to be tailored to the exact needs of a mobile workforce, whether it is in the manufacturing, distribution, field service, meter reading, retail, light duty warehousing or third party logistics markets. With Windows CE .NET and the Intel XScale processor serving as a platform, the WORKABOUT PRO is an entry-level hand-held computer that has the power to run advanced applications. Utilisation of standard radio technologies such as GSM/GPRS, Bluetooth and 802.11b, enables the WORKABOUT PRO to integrate with customer infrastructure requirements. The WORKABOUT PRO boasts simultaneous support of WAN, 802.11b and Bluetooth connectivity.

The WORKABOUT PRO delivers reliable performance, even in harsh environments, with an IP54 rating and ability to withstand drops from four feet (1.2m) to concrete. This rugged design enables it to deliver reliable performance and productive up-time to customers, resulting in a lower total cost of ownership. However, this ruggedness is not achieved at the expense of ergonomics as the lightweight WORKABOUT PRO features a crisp, sunlight readable display and keyboard designed to meet the needs of users.

Available in two models, the entry-level WORKABOUT PRO M (**Order Code WBP01**) features a monochrome touch display, 32MB Flash and 64MB SDRAM and the WORKABOUT PRO C (**Order Code WBP02**) adds a colour touch display, an embedded Bluetooth radio, 32MB Flash and 128MB SDRAM.

### **Dimensions for Workabout Pro M & C**

- Weight: 454g (16 oz) with battery; add 75g (2.6 oz) with scanner expansion module and 19g (0.7 oz) with 802.11b CF card radio.
- Size: Length: 221mm (8.7"), Width: 76 mm (3") at grip area tapering to 90mm (3.5") at display area, Depth: 1mm (1.2") at grip area tapering to 44mm (1.7") at display area.

### **Workabout Pro Accessories**

- AC Wall adapter (charge & operate handheld). (Order code WBP03)
- Charger/Docking Station (charges handheld & spare battery) (Order code WBP04)
- Quad Dock (4-site) w/ 10/100BaseT Ethernet and charge functions (Order code WBP05)
- Cigarette lighter adapter (Order code WBP06)

## **Psion-Teklogix Netpad, mobile handheld computer**



The Psion Teklogix Netpad® is a lightweight shock resistant and water resistant mobile tablet computer. Netpad has been specifically designed for use within demanding mobile computing environments such as mobile marine computing, field service, field data capture, field sales and, track, trace & delivery. The Netpad's unique, ergonomic shape and its large, 5.3cm x 15.0cm (2-1/8"x 5-7/8") half VGA touch screen (used in either horizontal or vertical orientation) make it the ideal computing solution for mobile workers. Rapid display of Maps and Charts, Signature Capture, Laser Barcode scanning and many other applications are all possible using the Netpad. The Netpad's powerful processor, long battery life and rugged water resistant construction make it the ideal computer for mobile computing. Water Resistant

### **Netpad 1100 specification: (Order code HNET1100)**

Water resistant to IP67

Shock resistant, designed to survive a drop from 1.5 m onto concrete

256 colour backlit ½ VGA (640x280) LCD

Touch screen with pen navigation

Dynamic switching between Landscape or Portrait mode

206Mhz Intel SA (Strong ARM) – 1110 processor, with 16Mb RAM

Lithium-ion rechargeable battery, giving 8 to 10 hours of battery life

MMC card slot, RS232 serial connector, IrDa (115 Kbit/sec)

Symbian OS, Java run-time environment (JDK 1.1.4), optional personal productivity applications, secure web browser, email etc...

### **Netpad 1200 specification: (Order code HNET1200)**

As for Netpad 1100 but with 64MB RAM as standard.

### **Netpad 3500 specification: (Order code HNET3500)**

As for Netpad 1100 but with an Inbuilt Laser Barcode scanner and 64MB RAM as standard.

### **Netpad Docking Station (Order code HNETDOCK)**

The Netpad docking station provides battery re-charging and easy communications via serial port to a PC running MS Windows (in addition to the Irda Infra-Red communications port built into the Netpad).

We can offer all our standard Psion Series 5 and Series 7 software running on the Netpad and also custom software development for the Netpad.

## GPS (GLOBAL POSITIONING SYSTEM) RECEIVERS

### THE GARMIN GPS II PLUS (Order Code GPS00002)

A high powered switchable handheld. The GPS II PLUS features a 12 parallel channel receiver for quick satellite acquisition and enhanced reception even in dense foliage and is designed for any over-the-road journey or offroad adventure.



This compact GPS features a state-of-the-art two-way screen display for vertical or horizontal orientation which makes it easier to go from your vehicle to the hiking trail. With an external antenna for impressive reception, the GPS II PLUS also boast dedicated zoom keys, waypoint symbols, diagonal panning, auto start/stop trip timer, and average and maximum speed recordings. Just four AA batteries will provide up to 22 hours of accurate and precise navigation.

Now the same pinpoint guidance used by pilots the world over is conveniently available to adventurers, regardless of their transportation means: 4x4, ATV, bicycle, motorcycle, snowmobile, boat or on foot.

THE GPS II PLUS offers the following features: -

- Powerful PhaseTrac12, twelve parallel channel receiver, tracks and uses up to twelve satellites for fast, accurate positioning.
- Versatile screen switches from horizontal to vertical orientation (and back again) with the press of a button.
- User-friendly rocker keypad with diagonal movement, and sophisticated FTN LCD display with easy-to-read black pixel characters, full-featured moving map plotting and backlighting.
- Adaptable navigation page with either compass or highway steering guidance, and user-selectable data fields.
- User-selectable waypoint symbols enhance map display information.
- Patented TrackBack feature lets you quickly navigate your track log back home without manually storing waypoints.
- Trip odometer, average and maximum speed, and auto start/stop trip timer.
- Dedicated keys for zooming map display from 0.2 to 320 miles.
- Rugged construction with locking rubber battery cover.
- Optional mounting bracket and remote antenna.

## **THE GARMIN GPS eTrex (Order Code GPS00003)**



Truly a small wonder, the eTrex takes the best features of a 12 parallel channel GPS receiver and put them into a six ounce package that is only four inches high and two inches wide. The result is a unit that will literally fit in the palm of your hand.

Besides its small size, mariners and outdoorsmen will likely notice the sleek design of the eTrex. All buttons are located on either side of the unit, allowing for simple, one-handed operation that won't obstruct your view of the display. In fact, the eTrex features only five operator buttons for the ultimate in user-friendly design. Thanks to its bright yellow case, the eTrex will be hard to misplace and easy to find in any boat or backpack. The eTrex is completely waterproof so it can take an accidental splash or dunk in the water and still continue to perform.

Inside the eTrex, you will find the proven performance of a 12 parallel channel GPS receiver that will run for 22 hours on just two AA batteries. The eTrex will store up to 500 user waypoints with graphic icons and boasts Garmin's exclusive TracBack® feature that will reverse your track log and help you navigate your way back home. In addition, the eTrex uses animated graphics that will help you identify your marked waypoints quickly and easily.

### **Dimensions Garmin eTrex**

- Size: 4.4"H x 2.0"W x 1.2"D (11.2 x 5.1 x 3.0 cm)
- Weight: 5.3 ounces (150 g) with batteries

### **Acquisition Times**

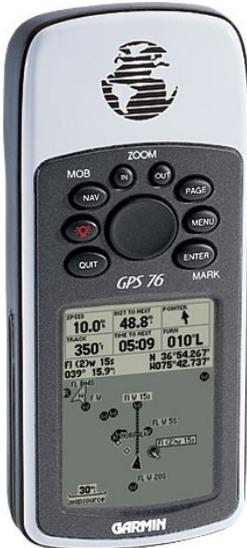
- Warm: approx. 15 seconds
- Cold: approx. 45 seconds
- AutoLocate®: approx. 5 minutes

### **Interfaces**

- RS232 with NMEA 0183
- RTCM 104 DGPS data format
- Proprietary Garmin®

## GPS (GLOBAL POSITIONING SYSTEM) RECEIVERS & ACCESSORIES

### THE GARMIN GPS 76 (Order Code GPS00011)



The GPS 76 is designed to provide precise GPS positioning using correction data obtained from the Wide Area Augmentation System (WAAS). This unit features a built-in quad helix antenna for superior reception and can provide position accuracy to less than three meters when receiving WAAS corrections.

The GPS 76 provides 1 megabyte of internal user memory to be used for storing downloaded Points of Interest data. This 1 megabyte of storage area is preloaded from the factory with world-wide cities (populations greater than 200,000) and nautical navigation aids such as lights, buoys, sound signals and day beacons, and is perfect for downloading points of interest detail from Garmin's line of MapSource® CD-ROMs. The GPS 76 is also preloaded with tide data for the United States (unit is only compatible with USA tidal stations).

An extra-large display measuring 1.6"W x 2.2"H gives users a clear view of information, while a waterproof case means the GPS 76 will keep working well even if it's been submerged in water. Even more amazing, this unit will actually float if accidentally dropped in the water.

#### Dimensions Garmin GPS76

- Size: 2.7"W x 6.2"H x 1.2"D (6.9 x 15.7 x 3.0 cm)
- Weight: 7.7 ounces

#### Display

- 1.6"W x 2.2"H (4.1 x 5.6 cm)
- 180 x 240 pixels, high-contrast
- FSTN with bright backlighting

#### Acquisition times

- Warm: Approximately 15 seconds
- Cold: Approximately 45 seconds
- AutoLocate®: Approximately 2 minutes

## **GARMIN GPS ACCESSORIES**

### **Garmin GPS II Plus Mounting Bracket (Order Code GPSA00004)**

For mounting the Garmin GPS II Plus onto a Boat Chart Table or Car Dashboard.

### **Garmin GPS II External Aerial (Order Code GPSA00005)**

GA26 low profile remote antenna with 2 metre cable and magnetic and suction mountings.

### **Garmin GPS to Psion Series 5/3/3a/3c data cable (Order Code GPSA00006)**

Connects a Garmin GPS to the Psion Series 5 and Series 3/3a/3c computers (Psiwin link cable required).

### **Garmin GPS to PC data cable (Order Code GPSA00007)**

Connects a Garmin GPS to the serial port of an IBM PC or compatible computer.

### **Garmin GPS to Psion Series 5/3/3a/3c data cable with Cigarette Lighter Power Adaptor (Order Code GPSA00008)**

Connects a Garmin GPS to the Psion Series 5 and Series 3/3a/3c computers and provides power to the GPS. (Cannot be used without power. Psiwin Cable required).

### **Garmin GPS to PC data cable with Cigarette Lighter Power Adaptor (Order Code GPSA00009)**

Connects a Garmin GPS to the serial port of an IBM PC or compatible computer and provides power to the GPS.

### **GA-29F surface mount GPS antenna (Order Code GPSA00010)**

If you're mounting your GPS unit below deck, you'll need this remote marine antenna to receive GPS signals. Comes with 30 feet of cable and BNC connector.