

**HCA Survey Programme Working Group
Letter No. 2/2005**

To: Members of the HCA Survey Programme Working Group

Subject: **IHO Hydrographic Committee on Antarctica. HCA4.
Decisions and actions Item No 8.**

Dear Members,

This circular letter refers to the Decisions and Actions resulting from the HCA4 meeting in Kythnos. As you will recall the HCA Hydrographic Survey programme WG has been tasked to develop guidelines for the collection of hydrographic information by tour vessels. This will ultimately be provided to IAATO for inclusion in their standard reporting procedures. On completion of this task the guidelines will be also be provided to COMNAP.

Annex A contains the first draft guidelines for this Action. This has been prepared following consultations with surveyors, navigators, Masters and Sailing Directions authors. I would be grateful for your comments, suggestions and improvements on this document.

To maintain momentum, **responses, by E-mail, are requested by 30th March 2005.** Thank you for your support.



Andy Willett
Chairman IHO HCA Survey Programme WG

Annexes:

A. Guidelines for the collection of data.

**HCA HYDROGRAPHIC SURVEY PROGRAMME WORKING GROUP
COLLECTION AND RENDERING OF HYDROGRAPHIC DATA**

IAATO CRUISE VESSELS

General Area:	Antarctic Peninsula		South Georgia		South Shetlands	
	South Orkneys		Other - please state			

Location:

Vessel Name: Draught metres

Captain: Date

Data format:	Chart/Chart cutting		Plotting sheet		Tracing	
	UKHO collector		Floppy disc/CD rom		Photographs	
	Other - please state					

See Note 1

Position fixing: GPS Visual/radar Other – please state

Model of receiver	<input type="text"/>
Datum setting ie.WGS84	<input type="text"/>
Remarks: eg. Plotting errors between GPS and chart (note 2.3)	

See Note 2 Calibration date:

Echo sounder: Make Name/type

Scale setting: Depths recorded from: Sea surface Under keel

Sound velocity: Correction made? No Yes Metres per second

Transducer displacement applied (see note 3.6): N/A Yes No

See Note 3 (also UKHO NP 100 2.79-2.103)

Echo trace rendered: Yes See note 4 No

Speed of vessel

Lights report rendered

No	<input type="checkbox"/>	Yes	<input type="checkbox"/>
----	--------------------------	-----	--------------------------

Name/location	Position	Working: Y or N	Characteristics? checked: Y or N	Remarks

Buoys/beacons report rendered

No	<input type="checkbox"/>	Yes	<input type="checkbox"/>
----	--------------------------	-----	--------------------------

Name/location	Position	Condition: good, bad, missing	Remarks

Conspicuous Objects report rendered

No	<input type="checkbox"/>	Yes	<input type="checkbox"/>
----	--------------------------	-----	--------------------------

Name/location	Position	Bearing from seaward	Description and remarks

Views report rendered

No	<input type="checkbox"/>	Yes	<input type="checkbox"/>
----	--------------------------	-----	--------------------------

Location	Position/bearing from seaward	Panoramic	Pilotage	Portrait	Close-up	Remarks

See Note 5. Also latest Antarctic Pilot requirements

Note 1

The largest scale chart, a plotting sheet at a similar scale, a UKHO collector, a tracing or chart cutting should be used to plot the ships position during data collection.

If a chart cutting is used the additions and alterations should be marked in red. If a tracing is preferred, the additions should be marked in red, with adequate chart detail in black to enable fitting down. If a chart is rendered with data inserted, a replacement copy will be supplied free of charge.

Computer discs and CD Roms are also an easy way to render data and photographs, but must have easily readable formats.

Note 2

1. Visual fixes: To ensure the greatest accuracy, a fix defined by compass bearings or ranges, should consist if possible of more than two observations. These observations should be taken as nearly as possible simultaneously, carefully recorded at the time and listed in the report with any corrections that have been applied to them.
2. GPS positions: The report should state which datum was set on the receiver outputting positions,(eg WGS84 Datum) and/or whether any shifts quoted on the chart have been applied.
3. Mariners are requested to report observed differences between positions referred to chart graticule and those from GPS, referenced to WGS84 Datum.

Note 3

The following information should be included about the echo sounder:

1. Make, name and type of set.
2. The number of revolutions per minute of the stylus (checked by stopwatch) (see NP100)
3. The speed of sound in sea water in metres per second equivalent to the stylus speed.
4. Whether soundings have been corrected from *Echo-sounding correction tables*.
5. Setting of the scale zero. That is whether depths are recorded from the sea surface or from under the keel.
6. Where the displacement of the transducers from the position of the GPS receiver or other instrument used to fix is appreciable, the amount of this displacement and whether allowance has been made for it should be reported.
7. For methods of checking the accuracy of a sounder see NP100 287 - 2.89.

Note 4

Echo Trace

If an echo trace is rendered it should be marked as follows:

1. A line drawn across it each time a fix is taken, and at regular intervals.
2. The times of each fix and alteration of course inserted, and times of interval marks at not more than 15 minute intervals.
3. The position of each fix and other recorded events inserted where possible, unless a GPS printout or separate list of times and corresponding positions is enclosed with the report.

4. The recorded depths of all peak soundings inserted.
5. The limits of the phase or scale change in which the set is running marked, noting particularly when a change is made.
6. Name of ship, date, zone time used and scale reading of the shoaling edge of the transmission line should be marked on the trace. (diagram 8.14 in NP100)

Note 5

Views

New photographs should be obtained whenever possible and where a new view would help the mariner. An imperfect photograph, correctly annotated, can often be used to produce a view of considerable help to the mariner.

The various types of views and examples are given the following names:

1. **Panoramic.** A composite view made up from a series of overlapping photographs. This type of view is intended to show the offshore aspect including hinterland.
2. **Pilotage.** A single or composite view from the approach course to a harbour or narrows showing any leading marks, transits or conspicuous fixing marks. It may be combined with a close-up of the mark if necessary for positive identification.
3. **Portrait.** The single view of a specific object set in its salient background.
4. **Close-up.** Single views of one object or feature with emphasis on clarity of the subject for its identification.

The UKHO can supply a prioritised list of requirements for views that are needed for NP9. The Editor of the Antarctic Pilot is available to give advice on views required. (Telephone +44 (0)1823 337900 Ext 3480)

Note 6

Sailing Directions. Proposed amendments to the text of the Antarctic Pilot are always welcome. No particular format is required, but a Hydrographic note (H102) is a convenient method of forwarding data.

Note 7

Any other observations, comments or remarks that the mariner thinks would improve charting coverage or the Sailing Directions is always gratefully received in the Hydrographic Office. Examples of these include transit notes and tracings or chart cuttings delineating areas of kelp. Constructive comments on chart coverage or the lack of it are useful for the future planning of charts and surveying.

References: UKHO publications NP9 and NP100