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**NCWG Letter: 01/2018**

UKHO ref: HA317/010/031-15  
Finnish ref: LIVI/94/00.03.01/2018

Date 04 January 2018

**Subject: NCWG3 – Action 31: Digital repromat (Follow-up to NCWG Letter 06/2017)**

Dear Colleagues

Thank you to the 20 respondents to NCWG Letter 06/2017. This resulted in unanimous agreement to the draft new sub-sections A-501 and A-502 (although with some minor changes suggested).

While it was clear that it is now rarely done, we are now aware that at least one Member State still exchanges analogue repromat. For that reason, we should retain the detail at A-503 (ex A-502) and (added to A-501) a precis of the consequent advice in A-504 and A-505 for the time being.

A consolidated list of responses is at Annex A. An updated copy of Annex B to NCWG Letter 06/2017, taking account of the suggested changes as detailed in my comments at Annex A, is at Annex B. There is no need to respond to this letter, unless you feel strongly that further changes are required. If so, please respond **not later than 1 February 2018**.

Yours sincerely,



Mikko Hovi,  
Chair NCWG

Annex A: NCWG Letter 06/2017 Consolidated Response Form

Annex B: Revised S-4 Section A-500 (with changes from NCWG Letter 06/2017 shown in red)

**NCWG3 – Action 31: Digital reformat****Consolidated Response Form**

If you vote 'No' to any of the following questions, please explain in the 'Comments' section.

No.	Question	Yes	No
1	Do you agree with the draft sub-sections A-501 and A-502? <b>Chair: unanimously agreed, but some minor changes suggested in the comments below (see also Annex B).</b>	AU, CA, DE, DK, ES, ESRI, FI, FR, GR, IN, IR, IT, NO, NZ, SE, TSSO, UA, UK, US, ZA	
2	Are you aware of any member states still exchanging analogue reformat?	GR	AU, CA, DE, DK, ES, ESRI, FI, FR, IN, IR, IT, NO, NZ, SE, TSSO, UA, UK, US, ZA
3	Is there any value in retaining any of A-503 (ex A-502), A-504 and A-505? <b>Chair: as we now know of at least one MS exchanging analogue reformat, we must retain the guidance for the time being.</b>	GR, IN, UK	CA, DE, DK, ES, ESRI, FI, FR, IR, IT, NO, NZ, SE, TSSO, UA, US, ZA

**Further comments:****AUSTRALIA**

3: I think that a bilateral arrangement will take care of ordering, supplying and payment (if necessary) of Repromats. I'd prefer sections A-504 and A-505 removed from S-4. I'd retain A-503 for now.

**Chair: agree**

**CANADA**

1: We agree that S57 is a good standard to transfer vector data. Unfortunately S57 is not a format that can easily be converted to cartographic features, all the textual and supplemental information.

**Chair: Agree**

**FINLAND**

3: Some of the details payment (A-505) and the general guidance under A-504 (like point of contact) could be retained, but may moved to A-501.

**Chair: agree**

**FRANCE**

1: **A-502.4:** what matters is to get an image of the complete chart in addition to the separate files (for each colour), but not necessary a PDF, so we suggest a little change:

**A-502.4:**

"...should be accompanied by an image of the complete chart, **for example** in Portable Document Format (PDF)."

**Chair: agree**

**GERMANY**

3: Payment should be added to A-501.2 after "including automatic supply", see comments by Italy. At A-502.3 a minimum pixel density of 600 dpi for the raster could be worth to be added.

**Chair: As this is just an example what to agree, it is not the right place give any actual recommendation. However, adding a mention of resolution could be useful. (Like "..., the file format (for example Tagged Image Format - TIF) and resolution (for example 600 dpi) as agreed between producer and printer.")**

## GREECE

1: Paragraph A-502.3. Please note that at HNHS the final product of a new Paper Chart (PC), new Edition or Block is given for reproduction in PDF format in high resolution, not in separate files for each colour layer (TIF format).

**Chair: The printer nation really needs colour separated files, which presumably are produced at some stage during production.**

2: HNHS, a few years ago, started creating Paper Charts (PCs) digitally using dcart Publisher, aiming to transform the whole Greek folio. However, a big number of PCs is still in analogue format and it is being serviced manually. As a consequence, HNHS still has to exchange analogue repromats with other printer nations.

3: Following the comments above, it is valuable and useful to retain these paragraphs for a few more years.

**Chair: and maybe there are others still doing this, so we will retain the guidance on analogue reformat for the time being.**

## ITALY

3: I think that a bilateral arrangement should define procedures for ordering, supplying and paying reformat, then A-504 and A-505 might be deleted.

**Chair: Agree**

## SWEDEN

1: Comment to A-502.1 Using S57 as a transfer standard for vector information causes additional work to restore the information to INT 1 presentation for printing nation.

**Chair: agree**

## TSSO

2,3: While I am not aware of any MS still exchanging reformat in analogue format, it would be prudent to gather the opinions of all the MS (citing here the response from Greece as an example) before taking action to remove the clauses from S-4.

**Chair: agree**

## UKRAINE

In our opinion, even considering its recommendatory character, the section describes and uses more or less obsolete technologies of cartographic production (e.g., color separation plates, etc.). Soon this information will no longer be useful.

Perhaps, there is a need to include an example of modern printing technologies, such as transferring a complete chart file in one of the graphic formats using the World Wide Web, with specified characteristics for colors, fonts, resolution, etc. The example may be accompanied by a list of particularly important points for consideration. It will be useful, even though such issues are directly defined and stipulated in agreements. A reasonable opinion was expressed by Italy.

**Chair: Agree, but I think we should avoid adding too detailed technical examples.**

## UK

3. In view of the information supplied by Greece (which may also be true of Member States who are not represented in NCWG), it seems necessary to retain advice about analogue reformat for the time being. The fact that it is no longer considered the best (or only) method is covered at new A-501.1.

**Chair: Agree**

**Revised S-4 Section A-500**  
**(with changes from NCWG Letter 06/2017 shown in red)**

**SECTION 500**

**EXCHANGE OF REPRODUCTION MATERIAL**

**A-501 GENERAL**

- A-501.1** Reproduction material (repmat) is material made by the producer nation from which the chart may be reproduced, without redrafting, in modified facsimile by a printer nation. While it may be in analogue or digital form, it is now more usual, convenient and cost effective to exchange digital repmat.
- A-501.2** Repromat for New Charts, New Editions, Limited New Editions, Reprints and Notice to Mariners Blocks (see A-401.2) is supplied by producers at the request of printers (see A-402.2 and A-404.1). The terms, conditions and procedures for the exchange of repmat, ~~including automatic supply if appropriate~~, will be established bilaterally between individual producer and printer nations (see A-601). **These should consider, but not be limited to:**
- **Ordering process or automatic supply.**
  - **Identification of charts (e.g. INT number, national number).**
  - **Points of contact.**
  - **Digital or analogue.**
  - **Supply method:**
    - **For digital repmat, see A-502.**
    - **For analogue repmat: shipping method and packaging (to prevent damage in transit). See also A-503.**
  - **Acknowledgement of receipt.**
  - **Financial arrangements if required, see A-600.**

**A-502 DIGITAL REPMAT**

- A-502.1** **Digital repmat** may be in vector (using the Transfer Standard for Digital Hydrographic Data, S-57) or raster format.
- A-502.2** **S-57** data is useful for data exchange, but not suitable for paper chart adoptions.
- A-502.3** **Raster** format is more useful for modified facsimile ‘adoptions’ of paper charts, as this includes the cartographic elements (chart framework, text placement) which is not included in S-57. Ideally, each colour layer should be a separate file, the file format (for example Tagged Image Format - TIF) **and resolution (for example minimum 600 dpi)** as agreed between producer and printer.
- A-502.4** Digital repmat can be supplied via File Transfer Protocol (FTP) or for small NM blocks as an email attachment. The repmat should be accompanied by an image of the complete chart, **for example** in Portable Document Format (PDF).

**A-503 ANALOGUE REPMAT**

- A-503.1** The producer nation shall ensure that the repmat being provided to another nation meets certain **minimum** standards given below. These represent a minimum specification and should permit the producer nation to use its normal work materials and procedures.
- A-503.2** Material Characteristics: **Analogue** repmat will be prepared on stable base plastic or film. The size of the repmat will not vary from the computed chart size by more than  $\pm 0,5$  mm over the longest dimension of the chart graticule.

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- A-503.3** Image Quality: Repromat images will be precise and free of blemishes and holes, so as not to require opaquing or other touch-up work.
- A-503.4** Amount and Form of Material: The most appropriate form and amount of repromat will be agreed as part of the bilateral arrangements between producer and printer nations. Repromat will be in negative or positive form depending upon the printing processes used by the nations concerned. The repromat will be accompanied by a copy of the chart itself (see B-502.4).

#### ~~A-504 — PROCEDURES FOR ORDERING AND SUPPLYING REPRMAT~~

- ~~A-504.1 — Analogue repromat is sometimes ruined in the process of shipment, or delayed because the parcel was not properly identified. The following procedures should minimise such problems:~~
- ~~A-504.2 — Ordering repromat: The printer nation requiring repromat of an international chart shall order such from the producer nation and shall identify the required repromat by the international number, followed by the national number.~~
- ~~A-504.3 — Point of Contact: Each producer nation shall designate an addressee for requests for repromat.~~
- ~~A-504.4 — Ordering Procedures: The printer nation shall order the repromat by letter or through the use of a requisition form. Requests shall specify that the repromat is being ordered under the relevant bilateral arrangement (see A-601.1).~~
- ~~A-504.5 — Wrapping and Packing: Repromat shall be so packaged as to prevent damage in transit. A mailing tube or box of reinforced cardboard shall preferably be used.~~
- ~~A-504.6 — Supply Method: The method of shipment shall be determined when the bilateral arrangement is established. Over long distances air shipment is recommended as, although relatively expensive, it is the fastest and least likely to result in damage. Appropriate identification on the parcel shall be made to preclude undue delay to the parcel in the Customs Clearing House of the receiving nation.~~
- ~~A-504.7 — Receipt for Material: The receiving nation shall acknowledge receipt of each shipment of repromat and shall provide a documentary receipt to the producing nation.~~

#### ~~A-505 — PAYMENT FOR REPRMAT~~

- ~~A-505.1 — Where financial terms and conditions are agreed, they should in accordance with A-601.~~