

Paper for Consideration by NCWG

Comments on the Paper “*Future of INT Chart Scheme?*”

Submitted by:	IHO Secretariat.
Executive Summary:	This paper offers comments on the recommendations submitted in Doc. NCWG9-05.1A (India) – <i>Future of INT Chart Scheme?</i>
Related Documents:	S-4; S-11, IHO website > Publications > Standards.
Related Projects:	The Future of the Paper Nautical Chart (Final Report, 28 August 2020). WENDWG

Introduction / Background

1. The IHO Secretariat thanks India for raising a number of important issues on the future of INT charts in their submission paper (Doc. NCWG9-05.1A - “*The Future of INT Chart Scheme?*”).
2. The objective of this paper is to share the views of the IHO Secretariat for clarification purposes and complementary information in reaction to Doc. NCWG9-05.1A.
3. Since it is not quoted in Doc. NCWG9-05.1A as an important existing reference addressing the future of the INT chart, the IHO Secretariat reminds that the NCWG made a comprehensive study three years ago, and issued the Final Report of the Future of the Paper Nautical Chart, dated 28 August 2020. This report, available on the NCWG webpage > Miscellaneous ([link](#)), presents a specific section on INTernational Charts (from page 36 to 46, *what is the INT chart concept all about, future, etc?*). The relevance of the facts and arguments depicted in this section of the report should be noted as a first step.

Analysis / Discussion

4. The views of the IHO Secretariat on the positions and recommendations in Doc. NCWG9-05.1 are provided in Annex A.

Action Requested of the NCWG

5. The NCWG is invited to:
 - 1) **Note** the suggestions and recommendations provided by the IHO Secretariat in Annex A.
 - 2) **Initiate** any further action as appropriate, as long as it does not “overlap” the developments already in progress by other IHO bodies with no specific need to “escalate the issues” as such, since they are already identified and handled.
 - 3) **Support** on demand the WENDWG in the future, for the development of a Section 300 - *Guidelines for the Coordination and Management of the Development of S-100 Data Services in RHCs* (under the remit of the WENDWG), as part of S-11 Part A.
 - 4) **Prepare** the transition to S-101 ENC Schemes, in relation with the WENDWG, with the development of proposed amendments to Section 200 of S-11 Part A as soon as they become available from the ICCWGs of the RHCs. This can be coordinated with the agreement of the IRCC, through the WENDWG.
 - 5) **Note** that INToGIS III (extension to S-101 and S-100 based Products Schemes and Catalogues) is identified in the tasks to be handled by the WENDWG in relation with NIPWG (S-128), the IHO Secretariat and KHOA.

Annex:

A: Comments by the IHO Secretariat on Doc. NCWG9-05.1A – *Future of INT Chart?*

Comments from the IHO Secretariat on Doc. NCWG9-05.1B

Doc. NCWG9-05.1A

Introduction / Background

The overall objective of INT charts is to facilitate International Mariner for safe entry and exit from ports by providing series of charts/ENCs covering open seas to the ports and harbours. there should be no need for them to use larger scale national charts....

IHO Secretariat's comment: Agree in general with this statement. However, the shortcut between "*the overall objective of INT charts...*" and "*...providing series of .../ENCs*" seems a bit misleading, unless it is intentional. Then, since paper charts are not a priority for international shipping anymore – and here we are dealing with "International Mariner" requirements – the wording "*there should be no need for them to use larger scale national charts*" seems also misleading. Larger scale ENCs must be available for international shipping. This should be the conclusion. In order to meet specific national regulations, it is then up to the coastal States to decide whether they wish to produce larger scale national paper charts.

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Doc. NCWG9-05.1A

Introduction / Background

... In general, overlaps between INT charts should be sufficient to enable the mariner to safely transfer their position from one chart to the next. ... If there is no paper chart then overlap no more relevant as the navigator is going to get seamless ENC data. However the cell name and cell boundaries may get affected by the new S-100 compliant products.

IHO Secretariat's comment: Agree in general with this statement about ENCs, in particular, as long as ENC Schemes comply with the WEND Principles¹ (and in the future with WEND-100 Principles). No reference is made to existing WEND principles in the paper which is questionable. Then, the last sentence seems to introduce the issue to be addressed in the paper (cell name, cell boundaries for new S-100 compliant products)... which is a very important action, but already considered at various levels in the IHO (RHCs for S-100 Coordination, WENDWG, S-100WG, etc.).

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Doc. NCWG9-05.1A

Analysis / Discussion

Blocks of approved INT chart numbers, ... have been allocated to major areas. These numbers are listed in S-4, A-204, together with the principles by which the numbers are allocated within a region. In view of gridded ENC scheming for creation of S-101 product creation, the INT Chart numbering as per S-4, A204.2 may need a revision including regional INT chart boundaries...."

IHO Secretariat's comment: There is no agreement in the IHO at the moment for moving to a global grid scheme for S-100 products and data services and S-101 ENCs (see Last reports of WENDWG to IRCC). The INT Chart numbering system is for INTernational (paper) charts and should not be modified since it is not a priority anymore and there is no direct relationship between INT paper charts and future S-100 based products. See also Decision HSSC15/54 below. In other words, these concerns are already addressed and work is in progress.

¹ No overlap policy.

5.4	S-11 Part A	HSSC15/54	<p>HSSC Chair to report to IRCC that NCWG was tasked to work on S-11 Part A, Section 200 (to incorporate <i>S-101 Scheming Guidelines</i>) in liaison with S-101 PT.</p> <p>In relation to the recommendation from the WENDWG to the IRCC (Decision WENDWG13/11 and /12 refer), HSSC noted the proposal to consider a new Section 300 to S-11 Part A for other S-100 Products – Phase 1/Route Monitoring by WENDWG (<i>Guidelines for the Coordination and Management of the Development of S-100 Data Services in RHCs</i>).</p>	IRCC-15	Decision Complete
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Doc. NCWG9-05.1A

Analysis / Discussion

...The recent developments in digital charting toward migrating into S100 compliant product generation the existence of INT charts is also a question mark. Accordingly the S-11 Part 'B and INTtoGIS may need a revision...

IHO Secretariat's comment: Agree in general with this statement. For the remaining existence of INT (paper) charts, one should refer to the conclusions of the NCWG Report on the Future of the Paper Nautical Chart, and consider whether they are still relevant. For S-100 data services and products "schemes", the WENDWG in liaison with the IHO Secretariat is tasked to lead the development of INTtoGIS III (INT charts, S-57 ENCs, plus S-100 based products and services), which is very dependent on the progress made in the development of S-128.

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Doc. NCWG9-05.1A

Recommendations

- (i) Keep the INT Chart Scheme only for Route/ Planning Charts
- (ii) Let the Regional demarcation of areas to be retained and the respective RHCs to declare the serial numbers of their grids covering INTcharts.
- (iii) Since the gridded scheme ENC data is seamless on an ECDIS, there is no question of overlap of ENC/ chart.
- (iv) Revision of S11, Part A & Part B, S-4 and INTtoGIS may be obvious in view of migration into S-100 Compliant product creation.
- (v) It is HO's call to continue their paper chart production for the non ECDIS mandated vessels (eg. Small commercial, fishing, leisure etc) operating in their national waters.
- (vi) Paper chart specifications will remain as standards for nautical products.

IHO Secretariat's comments:

- (i) Agree, for the time being in accordance with the recommendations of the NCWG Final Report on the Future of Paper Nautical Charts, as long as these INT charts meet requirements of some IHO Member States and requirements from "printing" nations which is one of the benefit of the INT chart concept. National paper/raster charts can also be produced to meet national regulations. In this case, the IHO Secretariat strongly recommends that these charts meet the *Chart Specifications of the IHO* as in S-4.

- (ii) No change seems to be required. It is indeed up to the RHCs to define their schemes and S-100 coordination process (including S-101 ENC's). For the S-100 based products, discussions to be conducted under the WENDWG. Additionally, the WENDWG has recommended that RHCs appoint S-100 Coordinators in each region to help manage this process.
- (iii) The IHO Secretariat cannot agree more: no overlap should exist for ENC's (S-57 and S-101). In reality, this is not the case. Not all RHCs have a gridded scheme for ENC's, for historical and pragmatic reasons. This is a long process that the WENDWG monitors on an annual basis.
- (iv) Agree in general. Work in progress (see above).
- (v) Agree. However, note that work is in progress for other sub-segments with the establishment of the ENCWG, ECS Project Team.
- (vi) Partial disagreement: chart content specifications in S-4 are essential and need to be maintained for both ENC's and paper charts. S-57 and S-101 specify the encoding guidance to encode chart content in compliance with S-4, to which ENC's must be compliant with. For other nautical products (nautical publications) than charts, note the role of NIPWG.

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Doc. NCWG9-05.1A

Conclusion

Since the HO's are moving ahead toward paperless bridge, there is a need to revisit the INT Chart Scheming for the contemporary changes in digital chart production. HSSC Action Item 15/54 and IRCC 15 Recommendation 17 are relevant in this regard

IHO Secretariat's comment: Agree in principle with reference to Decisions and Recommendations of IRCC, however there is no systematic retro-effect on INT Chart Scheming as such or subsequent INT Charts already produced and in-use. This is up to the RHCs to adopt a seamless and coordinated approach for evolving INT Schemes in their regions for the production of INT Charts. The drivers for S-100 based products (including S-101 ENC's) may be different.

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Action Required of NCWG

NCWG is invited to

- (a) Note this paper
- (b) Escalate the issues to the HSSC, IRCC, RHCs, ICCWG, ENCWG, DQWG and S100WG

IHO Secretariat's comment: The Secretariat appreciates the suggestions and the concerns raised in this paper. However, the Secretariat notes that most of if not all are already addressed in the relevant Working Groups under the authority of the HSSC and IRCC.