



IHO File No. S3/8152

CIRCULAR LETTER 19/2018  
15 February 2018

**ADOPTION OF AN IHO RESOLUTION ON THE ELIMINATION OF OVERLAPPING ENC DATA  
IN AREAS OF DEMONSTRABLE RISK TO THE SAFETY OF NAVIGATION**

**References:**

- A. IHO Resolution 1/1997 as amended – *WEND Principles*;
- B. IHO CL 40/2014 dated 26 May – *Revision of the Guidelines for the Implementation of the WEND Principles*;
- C. IHO CL65/2017 dated 22 November – *Call for approval of an IHO Resolution on the elimination of overlapping ENC data in areas of demonstrable risk to the safety of navigation.*

Dear Hydrographer,

1. Reference C proposed the adoption of a new IHO Resolution on the elimination of overlapping ENC data in areas where these ENCs might create a risk to the safety of navigation.
2. The Secretariat of the IHO thanks the 55 Member States that replied to Reference C: Algeria, Argentina, Australia, Bangladesh, Belgium, Brazil, Canada, Chile, Colombia, Croatia, Cuba, Cyprus, Ecuador, Estonia, Finland, France, Germany, Greece, Guatemala, Iceland, Iran (Islamic Republic of), Ireland, Italy, Japan, Korea (Republic of), Latvia, Malaysia, Mauritius, Monaco, Morocco, Mozambique, Netherlands, Nigeria, Norway, Oman, Pakistan, Papua New Guinea, Poland, Portugal, Qatar, Romania, Saudi Arabia, Singapore, Slovenia, South Africa, Spain, Suriname, Sweden, Thailand, Tunisia, Turkey, Ukraine, United Kingdom, United States of America, and Uruguay.
3. Out of these 55 Member States, 54 supported the adoption of the proposed IHO Resolution. Six Member States offered comments in addition to their vote. One Member State did not approve the proposed IHO Resolution. These comments and the outcome of their review by the IHO Secretariat are provided in Annex A to this Circular Letter.
4. When the Reference was issued there were 87 Member States of the IHO with three States suspended. In accordance with the provisions of the Convention on the IHO in force since November 2016, the minimum number of affirmative votes required is 28. As a result, and taking into account the editorial corrections reported in Annex A, the proposed IHO Resolution has been adopted and will be included in the next edition of Publication M-3 – *Resolutions of the IHO*. The final English and French versions of this IHO Resolution are provided in Annexes B and C.
5. The Worldwide ENC Database Working Group (WENDWG) will consider the outcome of adoption of this IHO Resolution at its 8<sup>th</sup> meeting which is scheduled in March 2018 in Argentina.

Yours sincerely,

Dr Mathias JONAS  
Secretary-General

**Annexes:**

- A. Member States' responses to IHO CL 65/2017 and comments from the IHO Secretariat.
- B. Final version of the IHO Resolution (English version, including track changes in red).
- C. Final version of the IHO Resolution (French version, including track changes in red).

**MEMBER STATES' RESPONSES TO IHO CL 65/2017 AND COMMENTS FROM THE IHO  
SECRETARIAT**

**ADOPTION OF AN IHO RESOLUTION ON THE ELIMINATION OF OVERLAPPING ENC DATA IN  
AREAS OF DEMONSTRABLE RISK TO THE SAFETY OF NAVIGATION**

**CHILE**

VOTE = YES

1. We are not sure about the practicality of "identifying areas of significance" and "demonstrable risk to the safety of navigation" without having a standardized protocol for doing so. In our opinion overlapping ENC data must be avoided by concept, anywhere and at all times.
2. We cannot find rationality for establishing a one year period to establish a solution, particularly if the problem may causes risk to the safety to navigation. In our opinion, the problem MUST be solved "as soon as possible".

*Comment from the IHO Secretariat:*

*The IHO Secretariat strongly supports the conceptual comments made by Chile.*

*The practicality of the proposed Resolution was discussed at length at WENDWG meetings and based on the experience of the RENCs and Coordinators, it was agreed to remain "open" and flexible in the final wording to allow the possible development of innovative technical solutions in the long term. Same for establishing a one year period for designing a technical solution by consensus, but the one year timeframe was set as a deadline before other escalating steps should be considered.*

**FRANCE**

VOTE = YES

1. France wishes to amend the French translation to reflect the English version as accurately as possible:  
§3:

Replace: «Bien que les RENC et les fournisseurs de services à l'utilisateur final soient en mesure de développer certaines politiques de distribution afin de contribuer à empêcher les données qui se chevauchent à passer par la chaîne de distribution des ENC, la sécurité des navigateurs en mer ne devrait pas reposer sur ces seuls mécanismes, comme s'ils constituaient la solution première. »

By: «**Même si** les RENC et les fournisseurs de services à l'utilisateur final **ont parfois intégré dans leur politique de distribution des mécanismes pour éviter les recouvrements d'ENC**, la sécurité des **marins en mer** ne devrait pas reposer sur ces seuls mécanismes **qui ne doivent pas être considérés comme la principale solution**»

English version (for ease convenience): « While RENCs and End-User Service Providers may develop certain distribution policies to help prevent such overlapping data from passing through the ENC distribution chain, the safety of mariners at sea should not rely on these mechanisms alone, as if they were the primary solution.»

*Comment from the IHO Secretariat:*

*The IHO Secretariat is of the view that editorial corrections suggested by France are not considered as being strictly compliant with the English version in this case. It also suggested to keep "...la sécurité des navigateurs...", noting that "Notices to Mariners" is translated as "Avis aux Navigateurs". No change.*

§4, 1<sup>st</sup> subparagraph

Replace «...leur annexe... », by «...**son** annexe... »

*Comment from the IHO Secretariat:*

*Agreed.*

§4, in the middle

Replace: «...les producteurs d'ENC et les Commissions hydrographiques régionales devront...», by «...les producteurs d'ENC et les Commissions hydrographiques régionales devront **chercher à...**»

Comment from the IHO Secretariat:

*Agreed.*

§4, last subparagraph

Replace: «...et au plus tard dans l'année suivant le signalement...», by «...et au plus tard **un an après** le signalement...»

Comment from the IHO Secretariat:

*The French version proposed by IHO CL 65/2017 is more consistent with the English version. No change.*

§5:

Replace: «Nonobstant les responsabilités des Etats membres producteurs d'ENC impliqués, à savoir de notifier rapidement au navigateur d'éventuels risques pour la sécurité de la navigation, dans tout cas où la suppression de données ENC qui se chevauchent ne peut pas être effectuée et où leur maintien constitue un risque démontrable pour la sécurité de la navigation, les procédures décrites dans la section 1.7 des *Directives pour l'application des principes WEND* devraient être appliquées.»,

By «Nonobstant les responsabilités des Etats membres producteurs d'ENC impliqués, **afin de** notifier rapidement au navigateur d'éventuels risques pour la sécurité de la navigation, **pour toutes les situations** où la suppression de données ENC qui se chevauchent ne peut pas être effectuée et où leur maintien constitue un risque démontrable pour la sécurité de la navigation, les procédures décrites dans la section 1.7 des *Directives pour l'application des principes WEND* devraient être appliquées.

Comment from the IHO Secretariat:

*Editorial corrections suggested by France have been considered, as appropriate.*

2. France wishes to amend the English version to comply with the requirements of the French version:

§2:

Replace: «Hydrographic Offices, ENC Producers, and Regional Hydrographic Commissions should take appropriate measures to eliminate all overlapping ENC data, particularly in areas of demonstrable risk to the safety of navigation.»

By: «Hydrographic Offices, ENC Producers, and Regional Hydrographic Commissions **must** take appropriate measures to eliminate all overlapping ENC data, particularly in areas of demonstrable risk to the safety of navigation. »

Comment from the IHO Secretariat:

*Editorial corrections suggested by France have been considered. Changes have been made accordingly, but to the French version only for a better alignment with the English version, in application of the convention explained in section B-120.4 (Strength of wording) of Publication S-4.*

§4:

Replace: « Hydrographic Offices, ENC Producers, and Regional Hydrographic Commissions should seek to...»

By: «Hydrographic Offices, ENC Producers, and Regional Hydrographic Commissions **must** seek to...»

Comment from the IHO Secretariat:

*Same comment as above for §2*

§5:

Replace: «The timescale to resolve should be within one year of the matter coming to the attention of the ENC Producer Member States involved »

By: «The timescale to resolve **must** be within one year of the matter coming to the attention of the ENC Producer Member States involved. »

Comment from the IHO Secretariat:

*Same comment as above for §2.*

## **GREECE**

VOTE = NO

1. Greece, during the 1st IHO Council, expressed its reservations on the new IHO Resolution "ON THE ELIMINATION OF OVERLAPPING ENC DATA IN AREAS OF DEMONSTRABLE RISK TO THE SAFETY OF NAVIGATION" proposed by the WENDWG, because it foresees that a problem which haven't been resolved so far by the implementation of the WEND Principles and Guidelines, will neither be resolved by the new Resolution. Therefore, a possible failure to find a meaningful and reasonable solution to the matter, may compromise the prestige and reputation of IHO.
2. Greece believes that the overlapping matter is a purely technical issue and has to be resolved as such. The members and bodies involved, have still potential to provide a technical solution.
3. During the last years, Greece has persistently tried with a very clear manner to enlighten the real cause of the problem, not only within MBSHC but within IC-ENC as well, emphasizing to the refusal of some of the involved parties to implement one of the fundamental WEND principles which states that:  
**"A country is normally the ENC producing country for waters within its national jurisdiction."**
4. If any country neglects the above rule and proceeds in the production of ENCs in areas where it does not have the jurisdiction, using data that it is doubtful whether they are in its possession holding the copyright and as a consequence is incapable to update properly, then the result would be extended overlapping. The above situation constitutes, for Greece, a HIGH risk for navigation and should be monitored by the RENCs.

### Comment from the IHO Secretariat:

*The comments made by Greece are noted. The comments are considered in line with WEND Principles and Guidelines. However, it is also noted that the comments made by Greece are not contradictory with the new IHO Resolution. In areas where deemed necessary, it is therefore highly expected that technical solutions can be and will be established at the IHO level, without the need to go through the full implementation of the measures and procedures described in the new IHO Resolution.*

## **IRAN (ISLAMIC REPUBLIC OF)**

VOTE = YES

As you are fully aware, IHO is only a technical and consultative organization, and compulsory issues for implementation by Member States need to become mandatory through approval and entry into force by IMO committees, such as MSC. Now the question is if IMO approves requirements on "elimination of overlapping ENC data in areas of demonstrable risk to the safety of navigation" for II-10 Member States, and countries participating in regional hydrographic commissions DO NOT cooperate appropriately to eliminate such overlaps, what measures can regional coordinators of such commissions take in this regard? As the regional coordinators have been vested with the responsibility to pursue the issue of overlaps and reach satisfactory results within a year, would IHO need to provide any executive support to them in this respect?

### Comment from the IHO Secretariat:

*The comments made by Iran are noted. The IHO Secretariat's representatives participate in most of the technical meetings (ICCWG for instance) and in the Conferences of the Regional Hydrographic Commissions, and are in a position to provide advice and recommendations as appropriate. Bilateral discussions between Parties, involving the IHO Secretariat if needed, are highly recommended prior to formal meetings and Conferences, so key operational decisions can be drafted before they are submitted to the RHC Members in plenary sessions for approval.*

## **KOREA (REPUBLIC OF)**

VOTE = YES

The existence of overlapping ENC data in areas where the limits of waters of national jurisdiction between neighbouring countries are not established due to varying interests is inevitable in reality for the time being.

### Comment from the IHO Secretariat:

*The comment made the ROK is noted. However, the IHO Secretariat is of the view that there should be no waiver at all to the safety of mariners' life at sea when a single possible risk is identified, due to overlapping ENCs. The precautionary principle should be applied.*

**MONACO**

VOTE = YES

Monaco supports the proposals from France who wish to amend the French translation to reflect the English version as accurately as possible as well as amending the English version to comply with the requirements of the French version.

*Comment from the IHO Secretariat:*

*See above comments made for FRANCE.*

**IHO RESOLUTION ON THE ELIMINATION OF OVERLAPPING ENC DATA IN AREAS OF  
DEMONSTRABLE RISK TO THE SAFETY OF NAVIGATION**

(with editorial corrections from the version provided in Annex to IHO CL 65/2017 highlighted in red)

**IHO Resolution 1/2018 – Elimination of overlapping ENC data in areas of demonstrable risk to the safety of navigation**

<b>Elimination of overlapping ENC data in areas of demonstrable risk to the safety of navigation</b>	<b>1/2018</b>	<b>IHO CL 19/2018</b>	
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1. It has been reported that overlapping ENC data, when used in ECDIS equipment, may lead to unpredictable behaviour in at least the following cases:
  - overlapping data occurring in the same usage band (Navigational Purpose);
  - overlapping data occurring in ENC cells in different usage bands (Navigational Purposes) but using the same compilation scale.
2. Hydrographic Offices, ENC Producers, and Regional Hydrographic Commissions should take appropriate measures to eliminate all overlapping ENC data, particularly in areas of demonstrable risk to the safety of navigation.
3. While RENCs and End-User Service Providers may develop certain distribution policies to help prevent such overlapping data from passing through the ENC distribution chain, the safety of mariners at sea should not rely on these mechanisms alone, as if they were the primary solution.
4. In addition to the existing procedures related to overlapping ENC data described in:
  - IHO Resolution 1/1997 as amended (*WEND Principles*) and its Annex (*Guidance for the Establishment of ENC Production Boundaries*);
  - The *Guidelines for the Implementation of the WEND Principles*, as endorsed by the 11<sup>th</sup> WEND Committee Meeting in 2008 and amended in 2014;
  - S-11 Ed. 3.1.0 - *Guidance for the Preparation and Maintenance of International (INT) Chart and ENC Schemes and Catalogues of INT Charts and ENCs*; and
  - S-57 - *IHO Transfer Standard for Digital Hydrographic Data* -, Appendix B.1, Annex A - *Use of the Object Catalogue for ENC* (Ed. 4.1.0, January 2018) - clause 2.1.8;
 Hydrographic Offices, ENC Producers, and Regional Hydrographic Commissions should seek to:
  - Identify overlapping ENC data in all areas of significance to navigational safety within their areas of production or control;
  - Prevent the increase of any such cases; and
  - Resolve all of those cases where a demonstrable risk to the safety of navigation exists, through discussion and negotiation between the relevant ENC producers, as soon as possible, and at least within one year of any such overlapping ENC data being reported or identified.
5. Notwithstanding the responsibilities of the ENC Producer Member States involved, to take early action to notify the mariner of possible risks to the safety of navigation, in any case where the elimination of overlapping ENC data cannot be resolved and its continued existence presents a demonstrable risk to the safety of navigation, the procedures described in section 1.7 of the *Guidelines for the Implementation of the WEND Principles* should be applied. The timescale to resolve should be within one year of the matter coming to the attention of the ENC Producer Member States involved. Section 1.7 states:

*"1.7. The S-57 Standard allows minimal overlap of ENC data within usage bands. ECDIS systems will operate unpredictably in areas where significant overlapping ENC coverage is present, raising a potential navigational risk to end-users. Where overlapping coverage exists the Producer Member States should recognize their responsibility and take the necessary steps to resolve the situation. To ensure that overlapping ENC data coverage is resolved to the satisfaction of the Regional Hydrographic Commission (RHC), the following procedures should be undertaken in sequence until there is satisfactory resolution:*

*1.7.1 The RHC will identify and assess ENC coverage within their area of responsibility and highlight those areas where there are navigationally significant differences between the overlapping ENCs. The assessment of what may be navigationally significant should be guided by the best practices in this regard, acknowledged and approved by the IRCC. The RHC may seek the assistance of a Regional ENC Coordination Centre (RENC) to assist in development of this assessment and should take a proactive approach with the ENC Producer Member States, to resolve overlap issues within the region.*

*1.7.2 The RHC will keep the IRCC Chair and the IHO Secretariat informed, through the annual reporting process, about overlaps in ENC coverage, their associated risks and related action(s) taken by the coastal States and/or the Producer Member State. Appropriate action by the IHO Secretariat should be initiated to inform the International Maritime Organization of the situation with details of the desired actions to be taken by the Government(s) of the involved coastal State(s) and the risks associated with inaction.*

*1.7.3 Where urgent action is required to alert mariners to navigationally significant overlap issues then the RHC, through the concerned Producer Member States, should initiate promulgation of appropriate warnings directly with the regional NAVAREA coordinator and other local navigational warning protocols, while keeping the IRCC Chair and IHO Secretariat informed."*

IHO File No. S3/8152

**RESOLUTION DE L'OHI SUR LA SUPPRESSION DES DONNEES ENC QUI SE  
CHEVAUCHENT DANS DES ZONES A RISQUE DEMONSTRABLE POUR LA  
SECURITE DE LA NAVIGATION**

(avec corrections éditoriales en **rouge** par rapport à la version jointe  
en annexe de la LC de l'OHI 65/2017)

**Résolution de l'OHI 1/2018 – Suppression des données ENC qui se chevauchent dans des  
zones à risque démontrable pour la sécurité de la navigation**

<b>Suppression des données ENC qui se chevauchent dans des zones à risque démontrable pour la sécurité de la navigation</b>	<b>1/2018</b>	<b>LC de l'OHI 19/2018</b>	
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1. Il a été rapporté que lorsque des données ENC qui se chevauchent sont utilisées dans un équipement ECDIS, cela peut provoquer un fonctionnement imprévisible dans les cas suivants, à minima :
  - chevauchement de données dans la même bande d'usage (type de navigation) ;
  - chevauchement de données au sein de cellules ENC, dans différentes bandes d'usage (types de navigation), mais utilisant la même échelle de compilation.
2. Les Services hydrographiques, les producteurs d'ENC et les Commissions hydrographiques régionales **devraient** prendre des mesures appropriées pour supprimer toutes les données ENC qui se chevauchent, notamment dans les zones à risque démontrable pour la sécurité de la navigation.
3. Bien que les RENC et les fournisseurs de services à l'utilisateur final soient en mesure de développer certaines politiques de distribution afin de contribuer à empêcher **que** les données qui se chevauchent ~~à passer~~ **passent** par la chaîne de distribution des ENC, la sécurité des navigateurs en mer ne devrait pas reposer sur ces seuls mécanismes, comme s'ils constituaient la solution première.
4. En plus des procédures existantes concernant les données ENC qui se chevauchent décrites dans :
  - la résolution de l'OHI 1/1997 telle qu'amendée, *Principes WEND*, et **son** Annexe (*Directives pour l'élaboration de limites en matière de production des ENC*) ;
  - *Les directives pour l'application des principes WEND*, telles qu'approuvées par la 11<sup>ème</sup> réunion du comité WEND en 2008 et amendées en 2014 ;
  - S-11 édition **3.1.0** - *Guide pour la préparation et la tenue à jour des schémas de cartes Internationales (INT) et d'ENC et Catalogue des cartes INT et d'ENC* ; et
  - S-57 - *Norme de l'OHI pour le transfert des données hydrographiques numériques*, Appendice B.1, Annexe A - *Utilisation du catalogue des objets pour les ENC* (édition **4.1.0, janvier 2018**) - clause 2.1.8 ;

les Services hydrographiques, les producteurs d'ENC et les Commissions hydrographiques régionales **devraient chercher à** :



- identifier les données ENC qui se chevauchent dans toutes les zones importantes pour la sécurité de la navigation au sein de leurs zones de production ou de contrôle ;
  - prévenir l'augmentation de tels cas ; et
  - résoudre tous les cas dans lesquels il existe un risque démontrable pour la sécurité de la navigation, en discutant et en négociant avec les producteurs d'ENC concernés, dès que possible, et au plus tard dans l'année suivant le signalement ou l'identification de données ENC qui se chevauchent.
5. Nonobstant les responsabilités des Etats membres producteurs d'ENC impliqués, à savoir de notifier rapidement au navigateur d'éventuels risques pour la sécurité de la navigation, **pour toutes les situations** où la suppression de données ENC qui se chevauchent ne peut pas être effectuée et où leur maintien constitue un risque démontrable pour la sécurité de la navigation, les procédures décrites dans la section 1.7 des *Directives pour l'application des principes WEND* devraient être appliquées. Le délai pour résoudre le chevauchement ne **devrait** pas dépasser une année à compter de la date à laquelle la question est portée à l'attention des Etats membres producteurs d'ENC impliqués. La section 1.7 dispose :

*1.7. La norme S-57 autorise un chevauchement minimal de données ENC dans chaque bande d'usage. Les systèmes ECDIS fonctionneront de manière imprévisible dans les zones dans lesquelles des ENC se chevauchent de manière significative, exposant l'utilisateur final à un éventuel risque pour la navigation. En cas de couverture avec chevauchement, les Etats membres producteurs devraient reconnaître leur responsabilité et prendre les mesures nécessaires pour mettre fin à cette situation. Pour faire en sorte que les chevauchements de la couverture ENC soient résolus à la satisfaction de la Commission hydrographique régionale (CHR), les procédures suivantes **devraient** être appliquées successivement et jusqu'à ce qu'une solution satisfaisante soit trouvée :*

*1.7.1 La CHR identifiera et évaluera la couverture ENC au sein de sa zone de responsabilité et repèrera les zones où il existe des différences significatives pour la navigation entre les ENC qui se chevauchent. L'évaluation de ce qui peut être significatif du point de vue de la navigation devra se fonder sur les meilleures pratiques en la matière, reconnues et approuvées par l'IRCC. La CHR pourra rechercher l'assistance d'un centre de coordination régional des ENC (RENC) pour aider au développement de cette évaluation et devra adopter une approche proactive auprès des Etats membres producteurs d'ENC pour résoudre les questions de chevauchement dans la région.*

*1.7.2 La CHR tiendra informés le président de l'IRCC et le Secrétariat de l'OHI, via le processus de compte rendu annuel, des chevauchements dans la couverture ENC, des risques associés et de(s) mesure(s) y relative(s) prise(s) par les Etats côtiers et/ou l'Etat membre producteur. Une action appropriée du Secrétariat de l'OHI devrait être entreprise en vue d'informer l'Organisation maritime internationale de la situation et des détails des mesures que le(s) gouvernement(s) de(s) l'Etat(s) côtier(s) concerné(s) souhaite(nt) prendre ainsi que des risques associés à l'inaction.*

*1.7.3 Lorsqu'une mesure urgente est requise pour alerter les navigateurs sur des questions de chevauchement significatives du point de vue de la navigation alors la CHR, via les Etats membres producteurs concernés, **devrait** lancer la diffusion des avertissements appropriés directement avec le coordinateur NAVAREA régional et via d'autres protocoles d'avertissements de navigation locaux, tout en tenant le président de l'IRCC et le Secrétariat de l'OHI informés. »*