



Royal Netherlands Navy
Hydrographic Service

11th WENDWG VTC01

Agenda item_04.2B

Way forward
WEND-100 Principles

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The issue

- The Assembly endorsed the draft WEND-100 Principles and the proposed path forward in their subsequent development, as a consequence of the expanding range of hydrographic data products address in the IHO (S-100) Implementation strategy.
- Currently the full extent of the WEND-100 Principles applies to the production and the dissemination of S-101 ENC's only.
- The S-100 Implementation Roadmap for the S-100 Implementation Decade indicates that S-102, S-104, S-111, S-128 and S-129 products will be ready for implementation and dissemination before S-101 ENC's.



The what

- WEND-100 para 2.2.b) states: “Incrementally the full extent or specific sets of the WEND-100 Principles will apply to other S-1XX products”.
- So, now we should determine to which other S-1XX products the full extent of the Principles will also apply.
 - For safe navigation as described in SOLAS/V regulation 9



The How

- In order to determine to which of those S-1XX products the full extent of the WEND Principles will also apply for safe navigation as described in SOLAS/V regulation 9, two criteria are used.
- Basic: in a particular area all maritime users should use **the same authoritative source data** for safe navigation.
 - This is to **ensure consistency** and to **avoid conflicting content** of data products.
- End state: maritime users should use 'packaged' data from **the same authoritative producer** when available.
 - This is to **ensure harmonisation** and **consistency between** the various S-1XX products.



The result for safe navigation (1)

	Analysis	Conclusion
S-102 (Bathymetric Surface)	S-101 and S-102 both provide depth. This depth should be derived from the same authoritative source-data using harmonized processing methods e.g. on gridding, reference planes and filtering.	Therefore S-102 should follow the production and dissemination logic of S-101 and consequently the full extent of the WEND-100 Principles apply
S-104 (Water level)	Current data in S-101 is linked to a reference tide HW and LW. The time of HW en LW should be based on the same modelling and measurements as those for S-104; i.e. derived from the same source data.	Therefore S-104 should follow the production and dissemination logic of S-101 and consequently the full extent of the WEND-100 Principles apply.
S-111 (Surface Current)	S-101 and S-111 both contain current information. This current should be based on the same modelling and measurements with consistent outcomes, i.e. derived from the same source data.	Therefore S-111 should follow the production and dissemination logic of S-101 and consequently the full extent of the WEND-100 Principles apply.



The result for safe navigation (1)

	Analysis	Conclusion
S-102 (Bathymetric Surface)	S-101 and S-102 both provide depth. This depth should be derived from the same authoritative source-data using harmonized processing methods e.g. on gridding, reference planes and filtering.	Therefore S-102 should follow the production and dissemination logic of S-101 and consequently the full extent of the WEND-100 Principles apply
S-104 (Water level)	Current data in S-101 is linked to a reference tide HW and LW. The time of HW en LW should be based on the same modelling and measurements as those for S-104; i.e. derived from the same source data.	Therefore S-104 should follow the production and dissemination logic of S-101 and consequently the full extent of the WEND-100 Principles apply.
S-111 (Surface Current)	S-101 and S-111 both contain current information. This current should be based on the same modelling and measurements with consistent outcomes, i.e. derived from the same source data.	Therefore S-111 should follow the production and dissemination logic of S-101 and consequently the full extent of the WEND-100 Principles apply.



The result for safe navigation (1)

	Analysis	Conclusion
S-102 (Bathymetric Surface)	S-101 and S-102 both provide depth. This depth should be derived from the same authoritative source-data using harmonized processing methods e.g. on gridding, reference planes and filtering.	Therefore S-102 should follow the production and dissemination logic of S-101 and consequently the full extent of the WEND-100 Principles apply
S-104 (Water level)	Current data in S-101 is linked to a reference tide HW and LW. The time of HW en LW should be based on the same modelling and measurements as those for S-104; i.e. derived from the same source data.	Therefore S-104 should follow the production and dissemination logic of S-101 and consequently the full extent of the WEND-100 Principles apply.
S-111 (Surface Current)	S-101 and S-111 both contain current information. This current should be based on the same modelling and measurements with consistent outcomes, i.e. derived from the same source data.	Therefore S-111 should follow the production and dissemination logic of S-101 and consequently the full extent of the WEND-100 Principles apply.



The result for safe navigation (2)

	Analysis	Conclusion
S-128 (Catalogue of nautical products)	The catalogue is in essence a derived product. It depicts the availability of other S-1XX (based) products. The authoritative nature of the underlying data is captured within the listed S-1XX products and not so much in the catalogue itself.	The full extent of the WEND-100 Principles does not apply to S-128 products.
S-129 (Under Keel Clearance management)	UKC management data sets are derived products with other authoritative environmental S-1XX products and ship data as input.	The full extent of the WEND-100 Principles does not apply to S-129 products.



The where

- Insert result in WEND-100 paragraph 2.2 as b)
 - “When used for safe navigation the full extent of the WEND-100 Principles also applies to S-102 (Bathymetric Surface), S-104 (Water level) and S-111(Surface Currents).

Or

- Present result as first iteration of the ‘Guidelines on the implementation of the WEND-100 Principles’ in line with WEND-100 paragraphs 2.3 and 2.4.



Of note

- This does not preclude Nation A from backfilling for Nation B, if Nation B does not yet have S-1XX products available.
 - See section 4 of the draft WEND-100
- This does not preclude concurrent S-1XX products for other use cases than safe navigation within the context of SOLAS/V regulation 9.