TSMAD 25
Tokyo, Japan (15 – 18 January 2013)

S-101 Survey Report

Hydrographic Offices
Survey period : 15/07/2012 - 23/10/2012

Scrubbling consists in the elimination of empty answers or non HO answers.
Due to specific organisations, there are multiple answers from Canada (3) and US (4).

After scrubbling and fusionning we collect 22 answers
That to say 22 / 81 MS = **27% participation ratio**

HO participants are
Germany - Saudi Arabia – Belgium – Brasil – Canada – Chili – Estonia – US – France – Greece – Iceland –Italy – Japan – Morocco – Norway – Netherlands – Romania – UK – Singapore – Slovenia – Sweden -Ukraine

Answers ratio below are calculated without fusionning same MS answers
Due to troncated digits sum of ratio are not always 100%.
Ratio are blue highlighted if there is a wide consensus.
Ratio are yellow highlighted when opinions are divided.

General Questions

1.- What is the name of your organisation ?

2.- Were you aware before this survey that an S-101 ENC product specification is being developed as a replacement for the S-57 ENC product specification?
100% Yes
0% No

3.- How familiar are you with the S-101 development process?
19% Not Familiar (Saudi Arabia, US NGIA, Greece, Morocco, Romania)
52% Somewhat familiar
30% Very familiar

“Our representative in the TSMAD WG permanently informs us about the progress of the S-101 development process. But we do not know all the details, because we do not have sufficient capacity in order to intensively discuss all topics.” (Germany)

“CHS has a representative who is directly involved with the development of S101, however the vast majority of CHS has a good understanding of S-101 in general.” (Canada)

“Degree of familiarity depends on role within the organisation. Personnel involved in TSMAD is of course familiar, but many cartographers aren't yet.” (Netherlands)

4.- If your office is not directly involved with the development of S-101, would there be any benefit in having better access to the latest draft versions of S-101 and the work of the TSMAD internet development groups?
26% No answer (from involved members)
52% Yes
22% No (from involved members)

5.- Do you currently have an ENC production system?
4% No answer (Morocco)
89% Yes
7% No (US NGIA)

6.- If the answer above is YES, do you pay for a maintenance/upgrade service?
11% No answer (US NGIA, Morocco)
78% Yes
11% No (Saudi Arabia, Iceland, Ukraine)

7.- Do you consider that the ability to easily change both the content of S-101 (feature catalogue) and the symbology (portrayal catalogue) in ECDIS software at sea will be an issue for your office?
4% No answer (Maroc)
30% Yes
67% No

8.- If the answer to the above question is YES, please explain why?

“It took many years to finalise S-57 and we are still finding flaws. (EXPSOU, HTM/TXT notes,...) For sure S-101 will generate issues. Translation from S-57 to S-101 will be critical and for sure will cause problems like any other format conversion. Timing to go from S-57 to S-101 will need some additionnal coordination when will be the time to release the files.” (Canada)

“It should be helpfull for the production of charts, like now for paper charts symbolisation is available in the S4” (Belgium)

“I am uncertain that the catalogues should be adjustable in S-101. Tailoring these could lead to confusion in both SoN and operational/interoperability application.” (US)

“Since we produce DNC switching to S-101 will probably be easier than S-57” (US NGIA)

“Unless feature and portrayal catalogues are broadcasted by RENCs or VARs, and the volume of data exchanges are still acceptable.” (France)

“we think it will be very important that both ECDIS on board and HO's production softwares are to be updated at the same time. If not, we don't know if the misalignment could cause problems. “ (Italia)

“JHOD regards current ECDIS anomaly issue is important. JHOD expects critical anomalies would be fixed very quickly when we use the S-101 technology. On the

contrary, it will be a big load for every hydrographic office when coding policy changes too rapid under S-101 scheme which allows such rapid change." (Japan)

"We are dependent on the software." (Ukraine)

S-101 Concepts

9.- The following questions are related to Scale Independent and Scale Dependent data sets Do you understand the principals of this concept?
11% No answer (Morocco, Romania, Ukraine)
81% Yes
7% No (Saudi Arabia, Slovenia)

"Refrase the question. Twice independent ? (Slovenia)"

10.- Do you see any drawbacks ?
15% No answer (Germany, Morocco, Romania, Ukraine)
37% Yes (Saudi Arabia, Belgium, Canada, US, France, Italy, Japan, Norway)
48% No

"The technical realization is not yet clear in particular concerning the database-driven production of NtMs based on SI and SD datasets." (Germany)

"The data should have a scale not the products." (Canada)

"Possibly, features should be scalable, not datasets." (US NGIA)

"This will generate quite much work. We have a great number of ENCs. We'll have to split dem. This makes the situation complex - specially in the periode when we have some S-57 ENCs and some S101 ENCs." (Norway)

"Depending on support by CARIS software" (Netherlands)

11.- If YES, will you introduce scale dependent and scale independent data sets at some point?

"Yes" (Saudi Arabia)

"At the moment not clear" (Belgium)

"NO, at this time there is no benefit to CHS to separate our Scale independent data from our scale dependent data. Drawbacks to implementing this: - Must maintain 2 separate product streams. - Must ensure mariners have both products for complete coverage. - Complicates distribution and licensing processes. - No benefit for those with production systems, only file based systems" (Canada)

"Big change in the way we are working now. ENC with scale dependent/independant dataset integrated means that ENC and Paper chart are now equivalent anymore. Again big change from what the community is used to, this will involve lots of training on the producer side and user side." (Canada)

“If S101 allows for it we plan on supporting it.” (US NGIA)

“If the addition of SI data can be proven to save time and resources in the updating regime then we would slowly introduce the data” (US NOAA)

“This is a major change that needs a significant transformation of existing ENC datasets. - It will be a huge production effort for HO and it takes a long time, while the fastest we get the S-101 ENC coverage, the fastest we take the benefits. - Methods of distribution data sets and their marketing should be reviewed, which is also a difficulty. - End users should be trained to manage this new data organization. The benefits of this model remain to be confirmed because it raises questions: - A vessel using just a medium scale ENC to transit offshore should board all scale independent data layers which contain much more informations than required (coastal navigation aids for instance). This means a large volume of useless data to be transmitted and managed onboard for ECDIS. In addition, these scale independent layers generate also a significant flow of unnecessary updates for medium scale ENC used. - The geographical area covered by the scale independent layers, overlapped with several other ENC, could be much larger than the area of interest. This will create a data volume also artificially heavier compared to the actual amount of data. - Cells cutting of different data sets will not be easy, especially when neighboring countries have to agree on SI/SD production and on the possible reuse of SI data sets produced by another country. In addition it requires the revision of the distribution principles and pricing of ENC. By experience it takes years before setting agreements. - ENC producers already take benefits of SI single layer within their production tools (update one and use many). - Actual volume of updates is not deemed by stakeholders as a problem For these reasons, SHOM does not intend a priori to proceed with this concept that seems to have too many risks at this stage for a small profit.” (France)

“Yes, we will. We think the problem is the source data of the ENC. In our case, some ENC derive from old paper charts made in different datum using old date. For this reason, scale dependent and scale independent features could not be well consistent for all ENCs.” (Italy)

“It is not clear whether the following answer meets the intention of the question but Japan’s standpoint is as follows: SI is a smart idea so JHOD prefers to include it. But also this must make a big load to transit. In addition JHOD is afraid whether the converter works fine with SI concept as S-57 doesn't have it.” (Japan)

“Yes, at some point.” (Norway)

12.- When would this occur?

“2013” (Saudi Arabia)

“Not at this time if ever, as per clarification in previous question” (Canada)

“With CARIS HPD we could quickly generate scale independant layers for navaids for example, but users and ECDIS manufacturers are not ready” (Canada)

“When we begin to produce S101.” (US NGIA)

“Sometime after the publication of S-101” (US NOAA)

“See answer to previous question.” (France)

“When our production system supports it.” (Norway)

“Unknown” (Netherlands)
“When feasible...” (Sweden)

13.- The following questions are related to cartographic text placement. This concept is intended to reduce clutter and improve the user experience: Do you consider this to be a worthwhile concept?

11% No answer (Morocco, Romania, Ukraine)
89% Yes

14.- If NO, please explain why

15.- If YES, do you consider it would take a long time to change your data?

“It is difficult to estimate the effort already at that time. We tend to answer this question with YES.” (Germany)

“Not really” (Saudi Arabia)

“Unknown at this moment” (Belgium)

“Not in generic cases, but in areas with more information (port areas) it would take a reasonable amount of time to adjust the data.” (Brasil)

“As the placement of the text must minimize the danger of obscuring hazards, this is important concept. When the mariner turns the text on within the ECDIS the screen becomes excessively cluttered making if difficult to find what the mariner was looking for. Currently S52 control where the text appears within an ENC, hence text placement in an ENC currently requires zero effort. As implementation will require manual intervention this will add work to the production of ENCs.” (Canada)

“Text placement needs to be automatic within the ECS/ECDIS systems, some good algorythm exists. We need to focus on producing good charts with new data, not wasting time placing text like on paper charts.” (Canada)

“It is dependant on the tools used not the data. If all attributions is complete, them catalogs and dictionaries detailing text placement can automate the function.” (Canada)

“The process is short, we think, but depend to production tools availables in the market” (Chili)

“Yes” (Estonia)

“US Navy charting data is developed and controlled by the National Geospatial-Intelligence Agency. A plan/process to translate from NGA's DNC to S-101 is being created.” (US NEMOC)

“This depends on whether it is dynamic or if its tied to placement attributes.” (US NGIA)

“No” (US NGIA)
“We would work with our software manufacturer to capture the rotated data on the database side. however, there will be a period of time for mixed state data.” (US NOAA)

“This is an important improvement for mariners. As the coding of the cartographic text placement by HO would have a very significant cost, representation should be as automated as possible inside ECDIS software.” (France)

“No able to estimate the workload” (Greece)

“Yes, we do. It will depend on the automation tools available in production softwares.” (Italy)

“Yes” (Japan)

“Yes it will take a long time to go through all cells and text. We can not start this work before aour production system is ready for it.” (Norway)

“Unknown” (Netherlands)

“Probably, needs further investigation on what can be extracted from our database.” (UK)

“No it would not take a long time.” (Singapore)

“NO” (Sweden)

“Improvements to the text placements may be introduced gradually.” (Ukraine)

16.- The following questions are related to Information Types. Information Types have been introduced to improve the way meta information about features is encoded. For example the use of caution areas could be considerably reduced. Do you consider this to be a worthwhile concept?
11% No answer (Morocco, Romania, Ukraine)
81% Yes
7% No

17.- If NO, please explain why.

“Don't know the details about this one...” (Canada)

“We are unaware of this concept.” (US NGIA)

18.- If YES, do you consider it would take a long term to change your data?

“It depends on the number of concerned objects. There still are too little details about this issue.” (Germany)

“Not really” (Saudi Arabia)

“Unknown at this moment, but probably more than for text placement” (Belgium)

“No.” (Brasil)

“YES, this would be done on an ENC by ENC basis, not as a mass transformation.’ (Canada)

“A few years” (Canada)

“Depend to evolution of production tools in the change moment” (Chili)

“Yes” (Estonia)

“US Navy charting data is developed and controlled by the National Geospatial-Intelligence Agency. A plan/process to translate from NGA's DNC to S-101 is being created.” (US NEMOC)

“We are developing a new database, it will probably make it easier rather than more difficult to accept this concept.” (US NGIA)

“It is too soon to tell as it would depend on the amount of information types introduced. But this time of change happens at the new edition stage” (US NOAA)

“This is an important improvement for mariners. This work should be done by the converter and it doesn’t take much time to change the data.” (France)

“Same as previous”(Greece)

“Do not know” (Iceland)

“NO, we don't. We think it is possible to transfer information to Information Types when it occurs.” (Italy)

“Yes.” (Japan)

“Yes, quite some time.” (Norway)

“No.” (Netherlands)

“No it would not take a long time.” (Singapore)

“No.” (Slovenia)

“No.” (Sweden)

Data Distribution

19.- There will be an IHO S57 to S101 converter available free of charge during the transition period to convert S57 data into S101 data. Do you think that Hydrographic Offices must use it?

26% No answer (Chili, Japan, Morocco,Netherlands, Romania, UK, Ukraine)

52% Yes

22% No (Canada, US, Italy, Norway, Sweden)

“Has to be integrated in the cartographic production software, by the software producer.” (Belgium)

“Production system will be configured to output S57 and/or S101 datasets” (Canada)

“Our software provider will greatly benefit from it. Which means our organization having a more seemless production.” (Canada)

“Depending to time required for use the production tools and the new converter” (Chili)

“Future ECDIS must be compatible with both data formats (at least in the near term) and until such time as determined by IHO. I am certain industry will be providing this capability in their standard development suites when needed.” (US NEMOC)

“This converter should be implemented too within the ECDIS based S-101 in order that ECDIS remains compatible with S-57. The availability of ENC S-101 will probably be very gradual. Production systems must integrate a converter to be able to read both S-57 and S-101 ENC datasets. It’s highly probable that some HO will produce simultaneously in S-57 and S-101 mode.” (France)

“HO's could choose a S57 to S101 converter made by other software producers.” (Italy)

“Using converter needs not be mandatory. It is up to member states.” (Japan)

“It will be more usefull to use functionality in our production system when it is ready.” (Norway)

“It would be beneficial if all HO's would use the same IHO-approved tool in order to have the same results. Therfore it would be advisable to do so.” (Netherlands)

“I would anticipate that this would be added as a function to the production software” (UK)

20.- Will you begin the migration to S-101 production as soon as production systems become available?

15% No answer (Canada, Morocco, Romania, Ukraine)
44% Yes
41% No (Germany, Belgium, Canada, US, Greece, Italy, Japan, Norway, Slovenia)

21.- If NO, what factors must be in place before you begin the transition?

“An international agreement to produce S-101 data or Customers which want to use the new data” (Germany)

“Only when the new production software has been proofed to be a stable product.” (Belgium)

“- Vessels using CHS data are S101 ready - Communication plan with CHS clients must be ready - Production Software must be capable of producing S101 datasets - A significant percentage of clients who are S101 ready. As ECDIS' must be capable of reading both S57 and S101 for a long period of time there is no urgency to make this switch until the majority of our clients are ready.” (Canada)

“I don't know what will happen. Being the first to jump in will for sure cost money. Additionnal function will be needed in production systems, debugging... Fun to be in the front and influence development but there is a cost to it.” (Canada)

“We will have dual production systems as not all maritime user's will have access, transfered or adapted to an S-101 ECDIS.” (Canada)

“The US Navy will have to define requirement for shifting from DNC to S-101. A transition period where both data formats are co-created/employed is expected to be on the order of 5-10 years.” (US NEMOC)

“We are waiting for our new database and will begin when that becomes available, which may happen when the systems come out or after.” (US NOAA)

“Production systems availability is not a sufficient condition. See also answer to next question “ (France)

“It depends on the economic impact and other priorities of HNHS” (Greece)

“The technical staff has to achieve a good level of knowledge and training on new standard S-100/S-101 and new software. Probably we will wait for widespread use of ECDIS S-101 compliant.” (Italy)

“Not only production programmes but also information collection system, well-educated human resources (including education system), written local coding policy in accordance with S-101 (or international standard guideline on S-101), etc., are needed.” (Japan)

“1) Resources, 2) Decision from top management, 3) S-101 ECDIS in use, ...” (Norway)

“DEPENDS HOW LONG WILL STILL BE S57 DATA IN USE BY ECDIS, ON WHAT OTHER USE WILL BE FOR S101 DATA, DEPENDS ON PRICE ON NEW SW FOR CREATING S101 DATA.” (Slovenia)

22.- During the transition period and until there is 100% uptake of S-100/S-101 compatible ECDIS systems there will be a need for dual distribution of both S-57 and S-101 ENCs. Do you intend to provide a dual S-57 and S-101 service for an interim period?

19% No answer (Canada, Greece, Morocco, Romania, Ukraine)

67% Yes

15% No (Chili, US, Slovenia)

“Provided a converter from s101 to s57 is made available, till such time s101 compatible ecdis comes into force.” (Saudi Arabia)

“Only during a limited period” (Belgium)

“Start of the distribution of S101 ENC's will not commence until a significant portion of Clients are S101 ready. Then there will be short transition period (duration as yet to be determined) where our remaining clients will be informed of our cut off date for S57 ENC production.” (Canada)

“I don't know, but I can anticipate the mess. For sure we will need to establish clear dates for the end of S-57.” (Canada)

“During the transition period, the new production will be in S-101 format, and the S-57 products will remain until processing to new standard” (Chili)

“We have very limited ENC coverage and we will keep DNC and S-101 for a while” (US NGIA)

“No yet decided” (Greece)

“For the benefit of the mariners.” (Italy)

“HOW LONG WILL THE INTERIM PERIOD BE? aLSO THE SHIPPING COMPANIES WILL NOT JUST CHANGE ALL ECDIS EQUIPMENT AT ONCE, THIS WILL BE COST FOR THEM.” (Slovenia)

“Would it be worthwhile to have a converter from S-101 to S-57?” (Sweden)

23.- If NO, how do you plan to support current mariners which are using type approved equipment which can only read S-57 ENC data?

“Since gcs is producing official encs on s100 data from end 2012 through fresh surveys, this is an area where converters are available for both standards (s57 and s101)” (Saudi Arabia)

“I don't see the logic of supporting two products out there transition pediod should be minimal.” (Canada)

“The SHOA will support of S-57 products only up to the S-101 format transformation” (Chili)

“NGA will not be making ENC in S-57. Their transition will be from DNC to S-101 directly.” (US NEMOC)

“We will continue to make DNC until ECDIS can read S101.” (US NGIA)

“This is an important issue that we have to look upon” (Greece)

“YES... S57 ECDIS CURENTLY IS NOT IN USE BY ALL SHIPS, BUT NOW YOU CHANGE TO S101... DO YOU THING THIS IS GOOD FOR THE USERS/MARINERS?” (Slovenia)

24.- If YES, do you consider that this will be a major overhead for your office?
19% No answer (Chili, US, Morocco, Romania, Ukraine)
52% Yes
30% No (Saudi Arabia, Brasil, US, Iceland, Netherlands, Singapore,Slovenia)

25.- If YES, please explain why. For instance will you deliver a dual service where ENCs will be made available in S-57 AND S-101, or will ENC released in S-101 cancel the corresponding ENC provided in S-57?

“We assume that we have to support a dual service where ENCs will be made available in S-57 AND S-101, because a lot of mariners will use the S-57 data as long as possible.” (Germany)

“Having brought s100 std into force by iho from 01 jan 2010, it is necessary for vice versa converters to be available , if dual service is to done by the hyd offices” (Saudi Arabia)

“Extra time for education and training of the cartographers, time and budget to set-up a new production system, testing the new production system, time for resolving start-up problems, extra time for double production, ...” (Belgium)

“There is significant overhead and risk in maintaining the 2 streams of products: Must maintain dual delivery services for clients. Must generate both S57 and S101 products from our production system and ensure full synchronization and perfect match of the corresponding data. Must ensure QA on both product streams S101 and S57 ENC's must coexist within the HO in support of clients who have yet to upgrade for an interim period.” (Canada)

“Might be as easy as a puch of a button. Will mean a migration of our S-57 database to S-101. SInce the whole database will be converted, will mean production or 2 products. one in s-57 and one in S-101. lots of overhead.” (Canada)

“We estimate dual service” (Estonia)

“The cost overhead will be important for sure and it determines the rate of ENC S-101 coverage building and therefore the transition period to the ENC and ECDIS S-101. Unfortunately, it is impossible to quantify this at now, as it depends on the exact components of the S-101 and on the performances of the future production tools. Estimation of this additional costs should be conducted within the framework of the development of the S-101. Converter S-101 to S-57 should help HO to concentrate their efforts in the production of advanced S-101.” (France)

“Probably It will be impossible to cancel ENC provided in S-57 until ECDIS S-57 based will be type approved. Furthermore, If the process of conversion implies further checks and work that could cause a productivity slowdown, that could be a problem. Moreover when we will have production software compliance in S-101, we will begin to produce S-101 data and for us it could be difficult to continue simultaneously the production of S-57 ENC.” (Italy)

“JHOD doesn't think S-101 ENC cell can stop the production of the corresponding S-57 ENC cell until S-101 compatible ECDIS works 100% on the sea. JHOD are not optimistic that such situation (100% S-101 ECDIS) happen so soon” (Japan)

“We can not cancel any S-57 ENCs as many customers will be dependet on them for quite some time. We will have to have dual service.” (Norway)

“More options should have been available. We consider it will be an overhead, but not major or insurmountable.” (UK)

“It will probably be a dual service.” (Sweden)

26.- Do you distribute your ENCs via a RENC?
11% No answer (Morocco, Romania, Ukraine)
52% Yes
37% No (Saudi Arabia, Canada, US, Italy, Japan)

27.- If NO, please describe the mechanism that you use.

“We are planning to market through rencs in end 2012 /2013, since enc production has just commenced” (Saudi Arabia)

“CHS distributes ENCS via agreements with a network of dealers” (Canada)

“Separate distribution for ENC and RNC (BSB)” (Canada)

“Regions produce the ENC. They are then release to CHS HQ who publishes then thru our website and Value Added Resellers.” (Canada)

“We don't make S57.” (US NGIA)

“On the web like NOAA ENCs” (US NGA)

“We use a combination of Certified ENC Distributors and via our own website.” (US NOAA)

“We deliver our ENCs via Norwegian Hydrographic Service, UKHO and Jeppesen, using dedicated distribution agreements. Only for distribution purpose.” (Italy)

“JHOD has their own official distributor, the JHA. Also, you can get Japan ENC from RENCs as retailers.” (Japan)

Timeframe for transition

28.- What is the timeframe you expect are required to convert all your ENCs from S-57 to S-101?
89% answers

“We do not think that the provision of S-101 data is only a question of conversion. We assume that we have to support two different production systems. The timeframe to produce all ENCs as S-101 data is estimated at 10 years.” (Germany)

“One month , since only 5 encs are on s57 and balance will be done in s101” (Saudi Arabia)

“Unknown at his moment” (Belgium)

“3 years” (Brasil)

“Undetermined at this time, potential opportunity to address other issues as well during this transition to S101” (Canada)

“Don't know” (Canada)

“2018” (Canada)

“The migration of SHOA's ENC's will depend to production tools offer in the market” (Chili)

“5-10 years” (Estonia)

“DNC to S - 101 ENC (five to ten years)” (US NEMOC)

“We will store feature data in a database from which we will be able to make S101 or DNC.” (US NGIA)

“2016” (US NGA)

“It could be up to five years” (US NOAA)

“At this stage, it is difficult to answer this key question. May be 10 or 15 years ? Who knows ? Beyond 15 years it doesn’t make sense.” (France)

“It depends on the mechanism of transformation (conversion). Not ready to reply.” (Greece)

“Yes” (Iceland)

“It will depend on the IHO S57 to S101 converter. If the process of conversion implies further checks and work that could cause a productivity slowdown.” (Italy)

“No idea for time being” (Japan)

“Hard to say. It depends on the production system. Will probably take many years.” (Norway)

“Unknown” (Netherlands)

“Depends on the speed of the convertor. If there is an S-100 ECDIS in existance then it has to be provided with S-101 data only” (UK)

“It all depends on how good are the conversion tools.” (Singapore)

“DEPENDS HOW COMPLICATED THE CONVERTER SW WILL BE... FEW DAYS” (Slovenia)

“We estimate that the conversion period will be approximately 3 years.” (Sweden)

29.- Do you expect to continue to provide all your ENCs in S-57 format for an interim period after full S-101 coverage is completed to support installed end-user legacy systems?
89% answers

“That will be unavoidable.” (Germany)

“Yes, provided converter from s101 to s57 is also made available” (Saudi Arabia)

“As short as possible” (Belgium)

“Yes” (Brasil)

“Yes, for a finite period of time to ensure the majority of clients have migrated to the new standard.” (Canada)

“We should not aim for that... In reality I'm pretty sure S-57 will still be around in 2020.” (Canada)

“Yes” (Canada)

“Depend of requirements of final users” (Chili)

“Yes” (Estonia)

“No” (US NEMOC)

“We will make DNC while also producing S101 but do not plan to make S57.” (US NGIA)

“Not sure” (US NGA)

“Yes” (US NOAA)

“It is difficult to answer this question. Stopping S-57 production depends on many factors including the rate of ECDIS based S-101 expansion. See also the answer to previous question.” (France)

“It depends on the mechanism of transformation (conversion). Not ready to reply.” (Greece)

“Yes.” (Iceland)

“Yes as the same as previous question”. (Japan)

“Yes, dependent on requirements from IHO.” (Norway)

“Yes.” (Netherlands)

“Of course.” (UK)

“It will have to depend on market demands.” (Singapore)

“No.” (Slovenia)

“The question is dependent on IMO decisions.” (Sweden)

30.- How long do you believe this transition period must be?
89% answers

“It depends on the legislative provisions.” (Germany)

“2 years.” (Saudi Arabia)

“As short as possible.” (Belgium)

“At least 7 years.” (Brasil)

“Uncertain at this time.” (Canada)

“2020 could be a good target date for end of S-57.” (Canada)

“5 years.” (Canada)

“We don't have any timeline about this issue. Our production tools today use the S-57, but we work in the implementation an Hydrographic database, oriented to more easy transformation.” (Chili)

“3-5 years.” (Estonia)

“DNC to S - 101 ENC (five to ten years).” (US NEMOC)

“Unknown; it depends on how long customers take to fully transition.” (US NGIA)

“I am thinking about 5 years.” (US NGA)
“At least 10 years, unless type approval has an expiration date.” (US NOAA)

“Difficult to answer. The time period depends on the obsolescence of ECDIS based S-57.” (France)

“Not less than 3 years.” (Greece)

“I do not know.” (Iceland)

“Shorter is better. But JHOD are not so optimistic.” (Japan)

“5 years ??” (Norway)

“Interesting subject. Probably as long as S57-based ECDIS systems are available and IMO-approved? (Netherlands)

“It is dependant on when all ECDIS on all vessels are using a S-100 ECDIS. It may require IMO legislation to back up any projected date for the demise of S-57” (UK)

“It depends on the Equipment manufacturers and software provider.” (Singapore)

“6 months.” (Slovenia)

“The question is dependent on IMO decisions.” (Sweden)

Promotion

31.- In the future S-100 will derive a variety of different S-10X products. A proof of this is S-102 already accepted by IHO Member States. Are you planning delivery of S-102 or any other S-10X products for commercial use, and if so when?
85% answers

“The need for more thematic data in the sea areas will increase in the next years – e.g. the maritime spatial planning is a rapidly growing market but at this time it is not clear, wich end-user will buy such a product.” (Germany)

“Yes from 2013 onwards” (Saudi Arabia)

“Unknown” (Belgium)

“Yes. As soon as possible.” (Brasil)

“Yes, CHS is already running trails with simulated S102 datasets with certain clients in certain waterways of commercial traffic, and are currently investigating Surface

currents as another possible S10X layer. It is undetermined when this would this be moved to production and commercial distribution." (Canada)

"Yes. We are planning to do so next year with some specific clients. S-102 will enable us to update ECS/ECDIS systems with new bathymetric information at a speed never seen before. We are also working on S-103 for surface currents." (Canada)

"Our organisation will produce S-102 compliants products." (Canada)

"The SHOA's not considering in the near future the commercialization of other products than ENC's, Paper Charts and Publications." (Chili)

"Yes, during 3-5 years after the adopting of the standard." (Estonia)

"Yes. We are working to provide data in this format in the near future." (US NEMOC)

"No. Our products will mainly be for military use, not commercial. We will provide S102 in the future." (US NGIA)

"Not for commercial use." (US NGA)

"Yes. Dates of issues of such products are still unknown. ENC S-101 should be easy to produce not to absorb the capacity of HS to produce other derivated S-100 products, mainly expected from this new standard and users." (France)

"No plans yet." (Greece)

"I do not know." (Iceland)

"No at this time." (Italy)

"Not yet planned." (Japan)

"Probably Yes, but it is not decided. Will take many years." (Norway)

"Yes. When is not known yet." (Netherlands)

"Not currently, but some time in the future." (UK)

"Presently there is no software for the production of S100 products." (Singapore)

"YES." (Slovenia)

"S-102 is a possible download format according to the Inspire directive. We will introduce download services during 2013." (Sweden)

32.- Please comment if you have other suggestions/improvements or concerns about the impending publication of S-101
56% answers

“Some of questions are still unresolved, e.g. We are currently replacing our file-based production system step by step by a database-driven system. So, we will still have those parallel proceedings at least the next 5 years. Do we need to expect a conflict if we additionally produce S-101 data? Which are the specific consequences of the S-101 implementation on the database-driven production of ENCs and Paper charts – for instance the adjustment of lookup tables S-101 to S-4/INT1?” (Germany)

“Will be intimated soon.” (Saudi Arabia)

“None.” (Belgium)

“The key will be to establish a date for the end of S-57.” (Canada)

“The real problem is the state of developers of production tools and navigation systems. The development on new publication depend of mentioned actors for the implementation.” (Chili)

“We envision S - 101 and S -102 to be complimentary to each other and to the S10x. The chart of the future will incorporate data from both formats, blended to provide the mariner the platform specific solution he requires to safely and efficiently operate his vessel. Risk management will be in a large part assessed using thse datasets thus providing a better understanding of the operational water space in the area of interest.” (US NEMOC)

“No.” (US NGIA)

“Until proven otherwise, the concept of scale dependent / independent data sets has too many unknowns and risks to be implemented in the S-101.” (France)

“We have two main concerns: 1. The economic cost of the project of the conversion from s-57 to S-100. 2. The need of simultaneously producing ENCs in S-57 for the old systems and S-100.” (Greece)

“JHOD has an unfortunate experience of the transition from S-57 ed. 2 to ed. 3. Japan was the first state to produce ENC in ed. 2 format. But edition was changed to ed. 3. We wasted almost all resources invested for ed. 2 at that time. JHOD will not make the same mistake. JHOD also hope other member states not to make the same mistakes.” (Japan)

“No. We have been involved in TSMAD for a long time and had good opportunities to make suggestions there.” (Norway)

“Nil.” (Signapore)

“NO.” (Slovenia)

“It is vital that the overall roadmap including decisions at IMO and IEC etc is clear.” (Sweeden)