

ENC Data and ECDIS Anomalies

Since last year, the recognised ‘ECDIS anomalies’™ have raised concerns of trust in ECDIS and ENC. Key organisations like the International Hydrographic Organization (IHO) and the International Maritime Organization (IMO) are identifying and addressing the underlying issues within the regulatory framework.

It could not have come at a worse time. Just as the ECDIS mandate is commencing and forcing sceptics to raise concerns, a series of so-called ‘ECDIS anomalies’ have been attracting public attention. Those not knowledgeable about the details are blaming ENCs and are trying to undermine innovation in electronic navigation.

Fortunately, IHO and IMO have reacted quickly. With test datasets delivered through the industry to all ENC users, the IHO has clarified the main areas of concern and restored mariners’ confidence surrounding the use of ECDIS.

Although the initial assumption that the ENCs were at fault was quickly identified to be wrong, this is still an often-heard argument. While there may be issues with some ENCs, just as there are issues with some paper charts, a key aspect is the fact that an ECDIS is a complex system which is mainly software-driven. As such, an ECDIS needs regular maintenance to fix bugs, update presentation libraries or enhance the system to meet the most up-to-date standards, which may have changed during the ECDIS lifecycle. Not only are there currently no requirements for software and system maintenance for ECDIS, but those who do try to maintain their systems are penalised by a very strict and costly type-approval regime.

Furthermore, the future will bring more data-centric applications and hence the data supply chain will also need to be examined.

The efforts to solve the real issue with ECDIS anomalies will need to work on multiple fronts:

1. The ENCs need to be strictly coded in compliance with the current standards.
2. A software maintenance regime needs to be implemented within the regulatory framework and performance standards
3. The type-approval regime needs to be changed to enable rather than penalise system maintenance
4. A consistent data supply chain needs to be ensured.

It is encouraging that IHO and IMO, with the support of ICS and CIRM, have teamed up to address the underlying issue. IHO and IMO recognised that this matter will only be solved if they work together with the industry. In September and October, key experts from IHO, IMO and ECDIS manufacturers will meet to discuss the situation and establish the groundwork for addressing the issue.

The ‘ECDIS mandate’ has increased the pressure, but as explained above it is important to view the situation from a holistic perspective rather than join the ‘complainers’ and simply blame one aspect, be that ENCs, software or technology.