<div style="border:1px solid black; display:inline-block">**CHRIS15-6.3A**</div>

15th CHRIS MEETING
IHB, Monaco, 10-13 June 2003

REPORT OF THE TECHNOLOGY ASSESSMENT WORKING GROUP (TAWG)
(by M. Casey, Canada)

Chairperson: Mr. Mike CASEY (Canada)

Members: Australia, Canada, Germany, Netherlands, Sweden, UK, USA (NIMA & NOS).

Expert Contributors: Dr L. ALEXANDER (MIO), Mr R. SANDVIK (Primar Stavanger)

The TAWG worked by correspondence and through the Open ECDIS Forum (OEF) on the following topics:

IHO ENC Security Scheme: The Data Protection Scheme Advisory Group (DPSAG), which was set up by CHRIS to address the development of an IHO Security Scheme based on the Primar Scheme, prepared a plan of actions to 1) make the Primar Security Scheme (PSS), version 1 of an IHO Scheme; 2) transfer the role of Scheme Administrator to the IHB; and 3) subsequently develop a version 2 of the IHO SS. DPSAG's recommendations were approved by CHRIS-14 (Shanghai, August), including that DPSAG be made a sub-group of TAWG. These proposals were subsequently endorsed by Member States. Accompanying measures were for Primar Stavanger and the Canadian Hydrographic Service (CHS) to amend the scheme documentation and software Java based kernel, to provide a more comprehensive test data set, and to prepare a procedure handbook for the IHB. More information on the current status of the IHO ENC Security Scheme is available on the Open ECDIS Forum (OEF) at www.openecdis.org under the TAWG pages.

The development of Version 1.0 of the IHO Security Scheme standard (IHOSSV1) is now complete. The standard is now known formally as the **IHO S-63 Data Protection Scheme.** A plan of action for IHOSSV2 has been drafted and will require substantial future effort. The priority for this work will depend upon how favorably the industry adopts Version 1 and whether or not there is a drive for a subsequent version. The main thrust of a Version 2 would be to move the IHO Security Scheme closer to world standards, some of which are still emerging. The current Version 1 uses a number of features which are proprietary. The Digital Signature/Authentication portion of the standard in particular should be based on open standards.

We should use, as much as possible, mainstream technologies.   When IHOSSV1 was created, mainstream computing did not have what support for data protection and authentication standards were minimal. It is quite understandable that IHOSSV1 had to largely a custom system.

At this point however the situation is no only much better, but it seems that it will soon improve a great deal. We should be both actively researching the mainstream data protection and authentication standards that are available, and we should be willing to time the IHOSSV2 standardization process to assure that we are able to take advantage of appropriate technology.

The existing Version 1 should remain fixed for the next two years.

e-Commerce & Print On Demand (POD): A POD interest group has now been formed on the OEF at www.openecdis.org. A discussion group is also being formed for e-Commerce.

The Future of TAWG: The TAWG has been in existence for 5 years. The resignation of the current TAWG Chairman presents an open opportunity to discuss whether or not the TAWG should continue as before, be discontinued or be driven in a new direction.

Since its inception TAWG has concentrated on emerging technologies of interest. Two surveys were conducted to decide on what emerging technologies were of interest and the most recent of those reports suggested the following list of the Top Ten Emerging Technologies:

1. Encryption Standards
2. Electronic Docking Aids
3. Pilot Carry-On ECDIS
4. Technology For Fast/Cheap Surveys
5. Print On Demand
6. Forecasting Real-Time Under-Keel Clearance
7. Real-Time Chart Functions
8. Authenticating Electronic Data
9. Computer Assisted Compilation
10. Real-time data (water level, ice, weather, …)

Encryption and Authentication standards have been worked on. Flat Panel Displays were researched in aid of supporting Pilot Carry-on ECDIS. Print On Demand User Groups were formed. A User Group was also investigated for E-Commerce. Whether or not another survey of Emerging Technologies needs to be conducted and new priorities developed is open to question. With the publication of IHO S-63 Data Protection Scheme and the transfer to the IHB the issue for the DPSAG becomes one of maintenance and development. Perhaps this work more ably falls under the TSMAD umbrella.