



SEATIMES

The Newsletter of the Nautical Professional Education Society of Canada

(Society founded in 1995 by the British Columbia Branch of the Nautical Institute)

Affiliated Members: The Company of Master Mariners of Canada, The Canadian Institute of Marine Engineers.

March 2012

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In December of 2011, Captain Tony Crowther, the Society's first Treasurer and first Life Member, sent out a notice to members of a group known as "The Friends of Empire". Members of this group had either worked for the Empire Stevedoring Company in Vancouver or had been clients or associates of that company. They meet once a month for lunch and to chat about "the good old days".

Tony's notice read as follows: *"Many years ago I purchased two chairs from Empire Stevedoring, for, I seem to remember, \$50 each. I used them in my downtown office for many years and then at home but now I have no further use for them as we continue to downsize.*

I was told that they were on the other side of Jack Hopkins desk during his time as President so some of the "Friends of Empire" may have actually sat in them. They are very well made with hardwood and leather - the leather on the seats is a bit scarred and creased in places and the underfelt needs a bit of attention but with a bit of tlc they would grace anyone's den or similar area.

I would prefer them to go to a good home and would ask that anyone taking them make a donation, c/o Dave Whitaker, to the NPESC (Nautical Professional Education Society of Canada), of which both Dave and I are members." **Tony Crowther**



Jack Hopkins graduated in 1944 from the US Merchant Marine Academy at Kings Point <http://www.usmma.edu/>. After the war he attended Northwestern University and the University of California before entering the shipping business with Furness, Withy & Co. He became the President of Empire Stevedoring after Furness bought that company.

Jack was well liked and respected in the shipping industry, so it was not surprising when we immediately received messages from people who expressed an interest in his chairs. It looked like there might have been a bidding war until a message came from Jack Hopkins' daughter, Jane. She said she would like to acquire the chairs. It was now obvious who should have them. So, early this month, Tony Crowther delivered the chairs to Jane who has now made a substantial donation to the Society.

Jane and Tony, we thank you for your generosity.

Command Seminar – A Young mariner's View: As a recently qualified Deck Officer having been through the Trinity House Merchant Navy Scholarship Scheme, and an Associate



Member of the Nautical Institute, I was invited to attend The Nautical Institute Command Seminar in Bristol in November 2011, along with other Trinity House Cadets. I saw the Seminar as an opportunity to start involving myself in the professional world; both an exciting and daunting prospect.

What is it like to attend an NI Seminar? I can only give you my experience through the eyes of a young mariner, and having spent time at sea where I have experienced how rank can sometimes overshadow communication and prevent integration of Cadets into the bridge team. I was uncertain how this group of young, fresh mariners would be received. A room full of Master Mariners and Chief Executives is a little daunting and we felt like scared rabbits that had wandered into the lion's den.

My initial concerns were quickly removed when it became apparent that our presence was not only accepted but celebrated.

The contents of the seminar were enlightening and constructive to awareness of the working relationship between ship and shore. The speakers were highly knowledgeable in their topic and raised challenging questions for debate open to all after each presentation.

During intervals and after the day's events, there were opportunities to socialise and network with the various professionals from a variety of backgrounds, all more than willing to share their knowledge and experience.

The Seminar experience is beneficial in so many ways; it acts well as an introduction to The Nautical Institute and their work, builds knowledge and an interest in ongoing professional education and enhances personal confidence in a professional surrounding. This is why I believe that the introduction of young mariners to future seminars should be a continued privilege.

The NI delegates gave us so much; however it appeared to be a mutual relationship. The impact of fresh mariners, young in experience but rich in knowledge of how the ever changing youth are thinking and feeling about the industry, brought a different outlook and atmosphere to what other attendees are used to. The NI is paving the way to a quality working life for us, and knowing their audience is essential to providing this.

On completion of the Seminar I felt as though we were less like rabbits and more like lion cubs, ready to grow into successful, experienced and wise leaders in the maritime industry.

Samantha Mason AMNI. Seaways January 2012

NPESC Bursaries: On Thursday, March 15th Captain John Lewis FNI and I attended the Marine Campus of BCIT (the British Columbia Institute of Technology) to make two cheque presentations. Both were to students chosen to receive our 2011 awards. The first, our Bursary from funds established with the Vancouver Foundation, was presented to Third Officer Jessica Calado. Our Selection Committee chose Jessica when it met in November. We were unable to make the presentation sooner because she was on the final sea phase of her course. When applying for this Bursary, the applicant is asked to submit: -

- A letter introducing themselves and describing their sea-going experience, if any, and their marine training courses attended
- A detailed budget for the period of the course
- Two references, including one from a former Master, Chief Officer or Chief Engineer (if they have sea-going experience) or their Marine Training Instructor, plus one reference that may be non-marine related
- The most recent transcript of marks from their training institution.



David Whitaker. Jessica Calado. John Lewis

Jessica served the sea phase of her training with Princess Cruise Lines and provided a reference from the Master of one ship she had served on. We realised later that the Master, Captain Todd McBain, had been interviewed by the Society in 1995 and was the first to be appointed to a training position by the Society. That was when the Society was assisting those with Watchkeeping Mate's or Fourth Class Engineer's Certificates to accrue sea service.



The day after the presentation, Jessica sent the following message: -

To Captain John Lewis and Selecting Committee,

I would like to thank you and the members of the NPESC for choosing me as this year's recipient of the NPESC Scholarship. This scholarship will greatly help me in paying for this year's tuition. Receiving this scholarship means I can focus on my schoolwork and not have to worry about school financially.

In my fourth year of BCIT's Nautical Sciences Program I will continue to work hard and strive for excellence. My short-term goals include my completion of BCIT's Nautical Sciences Program with a Diploma in Technical studies. I plan to pursue my career as a Navigation Officer and work my way up to becoming a Captain, receiving my Master Mariners ticket.

Thank you again, for your generosity in choosing me as this year's recipient of NPESC Scholarship.

Sincerely, Jessica Calado. Third Officer, BCIT Nautical Sciences.

The second award went to Marine Engineer Cadet, Drew Mehain. This award comes from an endowment established with the BCIT Foundation in 1999 with matching funds from the Government of British Columbia.



John Lewis. Drew Mehain. David Whitaker

The annual interest provides a first year achievement award to a student in the Marine Engineering or Nautical Sciences programs. In 2011 it was the turn of a second year student from the Marine Engineering program to benefit. The faculty at the Marine Campus selected the recipient of this award.

Drew served the sea phase of his training on the Great Lakes with the Canada Steamship Line. He sent the following message to us,



"I just wanted to take a few minutes to send a thanks to you and everyone else who selected me for the NPESC scholarship, and for taking the time to come and present it. It's reassuring to know that those of us who are entering the industry are in good company and can find support and direction when we need it".

Each one of these awards was worth \$1,500. Our funds endowed with the two Foundations had not generated that amount in 2011, but the Society had sufficient funds, thanks to generous donations from our Members that allowed us to increase the value of our Bursaries.

Notices re the Society's Bursary for 2012 will be posted at Marine Training Institutions and the selection made later this year. The BCIT Foundation award this year will go to a second year student in the Nautical Science program.

Both pictures were taken in the Kongsberg full-mission Neptune Engine Room Simulator at the Marine Campus where the Nautical Science students were taking a class.

<http://www.km.kongsberg.com/ks/web/nokbg0240.nsf/AllWeb/3A8E0F5EDE3CCA4AC1256E2A0033B4D4?OpenDocument>

m.v. Annie Johnson: Everyone must be familiar with the grounding of the *Costa Concordia* in January of this year. Most will also have heard about the other Costa Cruises vessel, the *Costa Allegra*, which was left disabled in the Indian Ocean following an engine room fire. The vessel was en route from Diego Suarez in Madagascar to the Seychelles before heading north to the Suez Canal. The fire left the ship without main power supply but there were no injuries to passengers or crew. Given the proximity to a known piracy zone, nine members of the Italian Navy's anti-pirate unit were



already onboard. A deep-sea French fishing vessel took the *Allegra* in tow to the Seychelles where she arrived on March 1st to disembark her unlucky passengers.

The *Costa Allegra* is a cruise ship owned by the Italy-

based Costa Crociere, one of many subsidiaries owned by the Carnival Corporation. The vessel was well known to many in Vancouver during the '70s and '80s but not as a cruise ship. She was one of the first container ships to come up the west coast. She was built in 1969 in Finland as the container ship **Annie Johnson** for the Swedish "Johnson Line". She operated between North Europe and the West Coast of North America in a joint service with the "East Asiatic Company" of Denmark and the "Blue Star Line" from Britain. In 1986 she was sold to Regency Cruises with the intention of being converted into a cruise ship under the name *Regent Moon*, but she was laid up instead. In 1988 she was renamed *Alexandra* but continued to be laid up. In 1990 the ship was acquired by Costa Cruises and rebuilt into a cruise ship in Genoa, Italy. She entered service as *Costa Allegra* in 1992. A sister container ship, the **Axel Johnson**, was converted in Genoa that same year. She became the cruise ship *Costa Marina*.



South African National Cadet Training Project Gains Momentum:

Last October the South African Maritime Safety Authority (SAMSA) together with the South African Maritime Training Academy (SAMTRA) bade farewell to 16 cadets who went to sea to complete their training as seafarers. The 16 are part of the SAMSA cadet project that is in line with SAMSA's skills development programme.

Following the launch of the SAMSA sponsored cadet project earlier in 2011, the number of companies participating grew to the extent that the intake of cadets for 2011 was fully recruited.

A spokesman for SAMSA said the objective is to obtain training berths with reputable companies on the basis that these companies will bear no training costs, other than victuals, whilst providing training to South African cadets. "The benefit to these companies is that once qualified as Officer of the Watch in full compliance with International Maritime Organization's (IMO) Standards of Training, Certification and Watch Keeping for Seafarers (STCW) regulations, these cadets are available for employment by these same participating companies," he said.

Current participants in the project are Safmarine Container Lines, Smit South Africa, Columbia Ship Management, Klaveness Ship Management, Bernhard Schulte Ship Management, Odjell Makana, Seaspan Corporation, DAL/Essberger and Amistad ERV.

"Feedback on the cadet's performance, motivation and commitment has thus far been very positive," SAMSA says. Simon's Town, 27 October 2011. http://ports.co.za/news/news_2011_10_27_01.php#two

Watchkeeper: ECDIS – a time of navigational change: There is a great deal for operators to take on board with the arrival of the Electronic Chart Display and Information System (ECDIS) which is such an integral part of the "e-navigation" world of the future. There is, of course, the requirement for people to be trained to use the equipment, and not just in generic terms. Ships' officers must be familiar with the particular equipment that is fitted to the ship they are serving aboard.



This itself introduces complications when appointing people to serve on ships in a fleet where different types of navigation equipment are fitted, even after they have received their generic training in ECDIS. Once flexible people who could serve in their rank in any unit of the fleet at a moment's notice, officers will now



have to be appointed on the basis of their familiarity with the equipment fitted to their prospective ship. It is a complication that personnel people could probably do without. If officers do not have this "type-training" behind them, they will have to serve in an "auxiliary" role until they have completed it – another complexity, before they are permitted to use the equipment on their own. □□

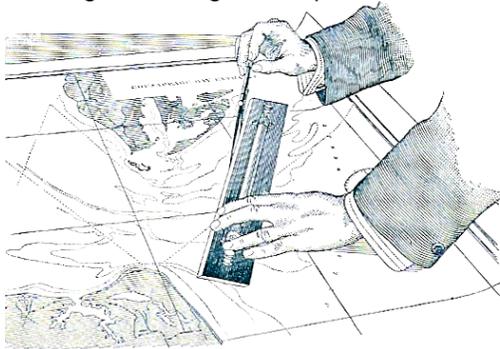
Another serious problem seems to be in the run-up to full ECDIS operations, now and then, operators have been confused over what constitutes "paperless" navigation, sometimes because they have been sold Electronic Navigational Charts which turned out not to have been officially approved. People have been operating in a sort of "hybrid" mode, while thinking that they are electronic navigators.

□□

The Australian administration has recently pointed out some of the inconsistencies they are picking up in

their port state control inspections of ships which claim to be ECDIS fitted, but turn out not to be quite so advanced as their operators claim. Despite being assured that the ship has been ECDIS provided, the inspectors then discover that there are in fact no officially approved electronic navigational charts (ENCs) aboard, but that the records indicate the equipment has been used both for passage planning and navigation. □

The Australian authorities, aware that mandatory carriage of ECDIS will be phased in from this July, have been tightening up their port state control procedures in this area and have let it be known that they will be looking closely at vessel's compliance in this respect. They will be seeking evidence of the generic and type specific training undertaken by the Master and navigating officers, along with evidence of familiarization training for the equipment that is carried aboard. Officers will have to be able to demonstrate their operational competency, and the ship will have to show that the ECDIS fitted is type-approved, with the charts properly maintained and up to date. □□ It is a big change in navigation, which may not have been quite so apparent in the first flush of enthusiasm for e-navigation. Some have suggested that it is as much of a change in navigational practices as was the change from sail to steam or, in engineering terms, the



difference between steam and diesel. It could be argued, however, that the level of regulation surrounding this considerable change is far more onerous. Those young officers who have learned their e-navigation from scratch still have to learn the principles of navigation, which they might find difficult and even apparently irrelevant in the electronic age. For their part, those older officers who have been brought up the "traditional" route using paper charts and are having to "re-calibrate" their practices and procedures to cope with ECDIS may also find the change hard. This time of great navigational change will probably require both caution and care. □□ Articles written by the Watchkeeper and other outside contributors do not necessarily reflect the views or policy of

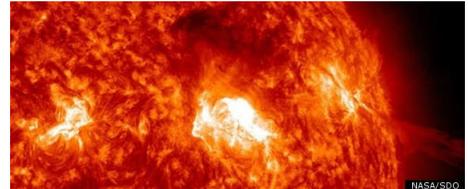
BIMCO.

Date: 14.03.12.

https://www.bimco.org/en/News/2012/03/14_Watchkeeper_Week_11.aspx

GPS signal failure and solar flares (Increasing level of geomagnetic activity over the next few years poses a very real risk of Global Navigation Satellite Systems (GNSS) outage. Navigators must be aware of the risks – and should take care that they are able to navigate by more traditional systems, rather than relying entirely on satellite data). Captain Tim Grime MNI, BSc (Hons).

In February 2011 a major solar flare erupted, triggering a huge geomagnetic storm – one that may be the first of many as the Sun's magnetic energy cycle peaks in 2012 and 2013. NASA is extremely concerned about the effects of such storms, warning that



"Modern society depends on high-tech systems such as smart power grids, GPS and satellite communications – all of which are vulnerable to solar storms. In June 2011 NASA held a "Space Weather Enterprise Forum" to discuss methods of forecasting solar disruption of this kind and minimising the effects. "The Sun is waking up from a deep slumber and in the next few years we expect to see much higher levels of solar activity. At the same time our technological society has developed an unprecedented sensitivity to solar storms. The intersection of these two issues is what we're getting together to discuss," said Richard Fisher, head of NASA's Heliophysics Division. "I believe we're on the threshold of a new era in which space weather can be as influential in our daily lives as ordinary terrestrial weather. We take this very seriously indeed."

Further research via the Internet about these phenomena revealed a number of concerns about the effects of solar storms, and a range of more or less sensational claims about the potential breakdown of communications and navigation systems.

So what would a major geomagnetic storm mean for the safety of maritime navigation at a time when contemporary navigators rely heavily on GPS position information?

The Royal Institute of Navigation: Peter Chapman-Andrews, director of the Royal Institute of Navigation (RIN), advises that: We are approaching a period of forecast increased solar activity, which is likely to have an effect on GNSS signals of which GPS is one. It is also true that a great many systems, not only marine

navigation ones, are more or less entirely dependent on these signals, and as a result, corruption of the received signals could lead to degraded performance of the system or even complete failure. Consequently, the RIN has been one of several voices calling for reliable terrestrial back-up systems. The latest RIN policy statement on the matter, dated February 2010, is as follows: -

“Global navigation satellite systems currently provide highly accurate navigation and timing information under normal operating conditions. However, they have recognised vulnerabilities that could at times lead to local or regional failures. There is, therefore, a fundamental necessity, worldwide, for robust, terrestrial-based systems to provide a concurrent, independent source of position and time information to ensure navigational safety and environmental protection ashore, afloat and in the air. Such alternative systems could also bring concomitant benefits by providing the essential time and frequency data which support financial, broadcasting and other critical commercial and governmental activities.”

“This statement superseded its predecessor, dated 2004, and which very strongly advocated that LORAN C should be the back up system.

Reliance on GPS: Many marine navigators place excessive reliance upon GPS time and position information without use of alternative means of navigation to confirm their position. For instance, when attending a vessel on behalf of insurance interests to conduct a condition survey and assess risk exposure for the underwriters in 2010, we found that:

- There was no nautical almanac on board and therefore compass error calculations could not be made.
- The compass card of the standard (magnetic) compass above the wheelhouse was bent. This compass could not be trusted and ship’s staff could not calculate its errors.
- Some of the nautical publications appeared to be out of date having been superseded by newer editions.
- The bridge starboard wing compass was not synchronised to the master gyro, being about 100° in error. The crew could not adjust this as the required tool was not on board.
- The perspex cover over the master gyrocompass had been permanently removed. In consequence dust was accumulating on the innards of the gyro. This is likely to lead to failure and force ship’s staff to rely upon the magnetic compass (upon which no reliance can be placed) and for which ship’s staff cannot calculate any error.
- The master gyro was in need of professional overhaul. We were advised that there was no plan for this to be done.
- The ship’s chronometer had stopped and the vessel’s master clock was not rated daily for errors.



There can be little doubt that this vessel relied almost totally on GPS – and there may well be many others like it.

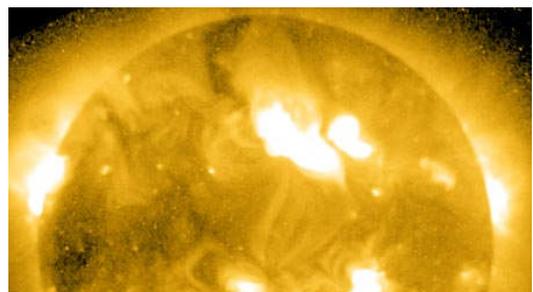


Sextant Graphics from “The Mariner’s Book of Days. 2011”

As we approach a forecasted peak solar flare activity period, in which GPS signal outage may occur, prudent Masters should encourage navigating officers to use conventional navigation methods including celestial navigation, visual bearings, radar usage and parallel indexing techniques, etc. and to develop dead reckoning skills, which arguably, the development of GPS has largely obviated. It is also worth noting that solar flares may influence local magnetic variation. From: *Seaways* August 2011

Solar storm leaves GPS service intact: The solar storm that occurred in early March 2012 disrupted satellite communications and forced airlines to reroute some flights. But so far, no major GPS problems have been reported as a result of the event.

The U.S. network of Continuously Operating Reference



Stations (CORS), which monitors GPS daily from over 1,800 locations, observed only slight changes to GPS reception in some parts of Alaska on March 7 and 9.

Solar activity can distort the GPS signals as they pass through the Earth's ionosphere, causing accuracy errors. In addition, intense radio bursts from the Sun can overwhelm or jam GPS devices. This occurred after a solar flare in December 2006, causing widespread outages of GPS equipment.

Solar events may also impact GPS satellite operations, although that did not occur this time. All 31 operational satellites in the GPS constellation remained fully functional throughout the solar storm. GPS spacecraft are built to withstand high levels of radiation, since they fly in a fairly intense region of the Earth's Van Allen radiation belts.

More solar storms are likely to occur through 2013-2014 as the Sun reaches its "solar max" period. GPS users should keep this in mind and always have a secondary means of navigation or timing.

To learn more about solar activity and other space weather that can affect life on Earth, visit the following websites: <http://www.swpc.noaa.gov> <http://www.ametsoc.org/atmospolicy/spacewxGPS.html>

This story was published on March 14, 2012.

X-ray image of the Sun taken by NOAA's GOES satellite on March 9th 2012.

<http://www.gps.gov/news/2012/03/solarstorm/>

"The NPESC is supported by NIBC members and others. We believe it is critical to support and encourage the new generation of mariners. The first recipients of NPESC Bursaries are now sailing as senior officers, Masters and Chief Engineers. We take great pride and pleasure in presenting cheques to the chosen recipients. You can all help by contributing annually to NPESC. Membership is a nominal \$40 per annum although many make much larger donations.

In closing this issue, I'd like to acknowledge the work of the members, in particular David Whitaker, who prepared the newsletter (and does much more), Brian Silvester, who tracks the finances, the members of the Selection Committee, and others too numerous to name. My thanks: your work maintains the finest tradition of the sea - helping each other.

John F. Lewis, FNI, CRSP.

Chairman.

Do you want to know more about: -

- The Nautical Institute? Look at <http://www.nautinst.org/> or <http://nibc.squarespace.com/>
- The Company of Master Mariners of Canada? Look at <http://www.mastermariners.ca/>
- The Canadian Institute of Marine Engineers? Look at <http://www.cimare.org/>

The Society welcomes any financial contribution you can make. Donations should be made payable to the **NPESC** and mailed to: **Nautical Professional Education Society of Canada, 20 – 1030 Hulford Street, Victoria, B.C. V8X 3B6**

Would you like to know more about the Society? If so, please contact me at whitknit@telus.net
David Whitaker FNI. Editor

When making a donation please use this form to accompany your cheque. Thank you.

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