



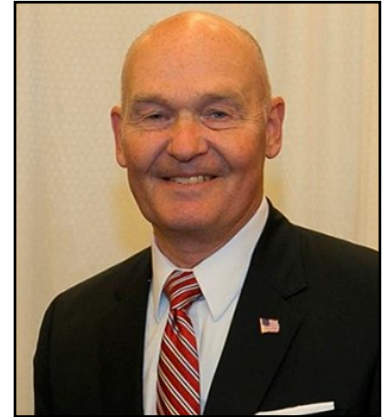
Maritime Administration's Safety Corner



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Cold Weather

Cold weather is coming. Proper cold weather gear can extend a mariner's safe exposure to the elements. It is easy for people to lose their safety focus when the cold wind is blowing or the cold rain/snow is falling. Supervisors need to keep an extra eye out for mariners who are distracted from vessel operations because they are cold. Remind your crew to speak up when they feel the cold is affecting their ability to perform tasks. The time to know is before it becomes a problem. If additional breaks in the operation are possible, an opportunity to warm up could make a big difference in worker safety. Be safe!



Maritime Administrator Mark H. Buzby

Another Use for AIS

AIS (Automatic Identification System) for vessels has proven to be a good tool to assist in vessel identification and navigation but could it assist in other ways? When AIS was developed, it was given the capability to send and receive messages in addition to providing a ship's name, characteristics, destination and current navigation information. The Maritime Administration and the Army Corps of Engineers have teamed up on a project to test the sending of automated weather data through the ship's AIS transceiver. The goal is to increase weather reporting from ships in order to improve weather forecasting and ultimately operational safety. By installing a small weather station, which can collect barometric pressure, temperature, relative humidity, wind speed and wind direction, and installing a small computer processor to format the weather observations, a weather message can be sent through the AIS with a periodicity of up to every two minutes. The system is connected to the AIS through a "Y connection" to the pilot port. The "Y connection" allows simultaneous use of the pilot port. Navigation messages have a higher priority than weather messages so only navigation messages will be sent if the AIS transceiver is experiencing a high volume.



Installed weather station

The system was first tested on a Ready Reserve Fleet vessel in Baltimore and on the T.S. KENNEDY's winter cruise. Weather systems are now being installed on commercial vessels for further demonstration and testing. AIS can transmit through terrestrial stations or via satellite. Because satellite messages have limited bandwidth, testing is being done to see the best way to send these messages.

The hope is weather forecasters will have more information to improve forecasting and navigators will have one less task to distract them away from ship navigation.

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ASTM Standard for LNG Transfers to Ships

When new technologies or innovations are introduced in the maritime industry, it is hard for regulations to be in place prior to their arrival. Most companies want some form of standardization or “best practices.” ASTM International often provides those standards. An example of this is the transfer of Liquefied Natural Gas (LNG) as a marine fuel.

LNG has specific challenges associated with its handling, the most significant being the extremely low temperature (-260 degrees F). Because there are significant safety risks associated with the cryogenic temperature of LNG, piping and hose assemblies must be designed to rigorous standards in order to mitigate safety risks to operators. ASTM International (formerly known as The American Society for Testing and Materials) identified a gap in standards, particularly in systems such as LNG bunker hose transfer assemblies that are repeatedly connected and disconnected. The ASTM’s Committee on Ships and Marine Technology’s (F25) (<https://www.astm.org/COMMITTEE/F25.htm>) mission is to develop and maintain standard specifications, test methods, terminology, practices and guides that support the maritime industry in the design, construction, operation and repair of marine vessels, structures, systems, equipment and materials.

ASTM International developed a new standard, ASTM F3312 / F3312M-18, to provide guidance on the minimum requirements for the design, manufacture, installation and operation of hose transfer assemblies for cryogenic service as it pertains to the bunkering of LNG-fueled vessels. The standard was developed with input from the Maritime Administration, USCG, maritime shipping companies and cargo hose manufacturers. The new ASTM standard does not attempt to address all safety concerns. It remains the responsibility of all parties using the standard to establish proper safety, health and environmental practices, and to comply with regulatory limitations.



From: <https://www.klawlng.com/wp-content/uploads/2015/06/LNG-ship-to-ship1.jpg>

If you would like to support the development of an ASTM International consensus standard, more information can be found on the ASTM F25 website at: <https://www.astm.org/COMMITTEE/F25.htm>

Top 10 Sleep Myths

Fatigue from lack of sleep is the cause of many incidents in the maritime industry. A good night's sleep goes a long way toward safer operations. Here are 10 sleep myths according to the U.S. Health and Human Services Administration.

Myth 1: Sleep is a time when your body and brain shut down for rest and relaxation. No evidence shows that any major organ (including the brain) or regulatory system in the body shuts down during sleep. Some physiological processes actually become more active while you sleep. For example, secretion of certain hormones is boosted, and activity of the pathways in the brain linked to learning and memory increases.

Myth 2: Getting just 1 hour less sleep per night than needed will not have any effect on your daytime functioning. This lack of sleep may not make you noticeably sleepy during the day. But even slightly less sleep can affect your ability to think properly and respond quickly, and it can impair your cardiovascular health and energy balance as well as your body's ability to fight infections, particularly if lack of sleep continues.

Myth 3: Your body adjusts quickly to different sleep schedules. Your biological clock makes you most alert during the daytime and least alert at night. Thus, even if you work the night shift, you will naturally feel sleepy when nighttime comes. Most people can reset their biological clock, but only by appropriately timed cues—and even then, by 1–2 hours per day at best.

Myth 4: People need less sleep as they get older. Older people don't need less sleep, but they may get less sleep or find their sleep less refreshing. That's because as people age, the quality of their sleep changes.

Myth 5: Extra sleep for 1 night can cure you of problems with excessive daytime fatigue. Not only is the quantity of sleep important, but also the quality of sleep. Some people sleep 8 or 9 hours a night but don't feel well rested when they wake up because the quality of their sleep is poor. One night of increased sleep may not correct multiple nights of inadequate sleep.

Myth 6: You can make up for lost sleep during the week by sleeping more on the weekends. Although this sleeping pattern will help you feel more rested, it will not completely make up for the lack of sleep or correct your sleep debt. Sleeping later on the weekends can affect your biological clock, making it much harder to go to sleep at the right time on Sunday nights and get up early on Monday mornings.

Myth 7: Naps are a waste of time. Although naps are no substitute for a good night's sleep, they can be restorative and help counter some of the effects of not getting enough sleep at night.

Myth 8: Snoring is a normal part of sleep. Snoring during sleep is common, particularly as a person gets older. Evidence is growing that snoring on a regular basis can make you sleepy during the day and increase your risk for diabetes and heart disease.

Myth 9: Children who don't get enough sleep at night will show signs of sleepiness during the day. Unlike adults, children who don't get enough sleep at night typically become hyperactive, irritable, and inattentive during the day. They also have increased risk of injury and more behavior problems, and their growth rate may be impaired.

Myth 10: The main cause of insomnia is worry. Although worry or stress can cause a short bout of insomnia, a persistent inability to fall asleep or stay asleep at night can be caused by a number of other factors. Certain medications and sleep disorders can keep you up at night. Other common causes of insomnia are depression, anxiety disorders, and asthma, arthritis, or other medical conditions with symptoms that tend to be troublesome at night. Some people who have chronic insomnia also appear to be more "revved up" than normal, so it is harder for them to fall asleep.

From: U.S. Department of Health and Human Services, "Your Guide to Healthy Sleep"
<https://www.nhlbi.nih.gov/sites/default/files/publications/11-5271.pdf>



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Maritime Safety Meetings

- October 15-17, 2019: **Ship Operations Cooperative Program (SOCP) Fall Meeting** in Mystic Seaport, CT (<http://www.socp.us/>)
- October 29– November 2, 2019: **SNAME Maritime Convention** in Tacoma, WA (<https://www.sname.org/events/event-description?CalendarEventKey=9f7b9367-43bf-43c9-b383-f457d9cb0ec9&Home=%2fevents%2fcalendar>)
- December 4-6, 2019: **2019 International Workboat Show** in New Orleans, LA (<http://www.workboatshow.com/>)
- December 11-12, 2019: **ASTM International Committee on Ships and Marine Technology Meeting** in Houston, TX (<http://www.astm.org/COMMITTEE/F25.htm>)
- January 12-16, 2020: **Transportation Research Board 99th Annual Meeting** in Washington, D.C. (: <http://www.trb.org/AnnualMeeting/AnnualMeeting.aspx>)
- February 3-6, 2020: **Passenger Vessel Annual Convention** in Tampa, FL (<http://www.passengervessel.com/SitePages/maritrends.html>)
- April 22-24, 2020: **Ferry Safety and Technology Conference** in New York, NY (<http://ferrysafety.org/>)
- April TBD 2020: **Waterborne Transport Group Meeting** in San Diego, CA (<http://www.waterbornetransportgroup.com/>)
- July 1-2, 2020: **ASTM F25 Ships and Marine Technology Committee Meeting** in Boston, MA (https://www.astm.org/MEETINGS/filtrexx40.cgi?+-P+MAINCOMM+F25+-P+EVENT_ID+3190+-P+MEETING_ID+113308+meetinginfo.frm)
- September 9-11, 2020 : **NTSB Marine Accident Investigation Course** in Ashburn, VA (https://www.nts.gov/Training_Center/Pages/2020/sched-courses.aspx)
- October 5-9, 2020: **National Safety Council Congress and Expo** in Indianapolis, IN (<https://www.showsbee.com/fairs/58767-NSC-Congress-Expo-2020.html>)

SAFETY TIP:

Hurricane season lasts till November 30th in the Atlantic. NOAA says conditions are now more favorable for above normal hurricane activity. Shortly behind hurricane season is winter. Be sure to order winter supplies early. Some supplies which may be needed are winter gloves, shovels, salt for walkways (or some type of deicer), etc.