

TEXAS A&M UNIVERSITY MARITIME ACADEMY SUMMER SEA TERM 2020 Annual Fire Safety Report on Student Housing



Higher Education Campus Fire Safety Standards and Measures

This Annual Fire Safety Report on Student Housing (Annual Fire Safety Report) and the Texas A&M University Maritime Academy Summer Sea Term Annual Security Report are available at the following Texas A&M University Office of Risk, Ethics, and Compliance websites.

<https://orec.tamu.edu/wp-content/uploads/TAMUMaritimeAcademyAnnualFireReport.pdf>

<https://orec.tamu.edu/wp-content/uploads/TAMUMaritimeAcademyAnnualSecurityReport.pdf>

Email vpfa-urc-compliance-officer@exchange.tamu.edu for assistance if any link does not function.

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Texas A&M University Maritime Academy, Summer Sea Term

Compiled by Mike Phillips, Assistant Manager Environmental Health & Safety, Fire Marshal

Telephone Numbers and General Contact Information

Reporting an Emergency

On campus phones - Police/Fire/Medical 911 or 9-911

Off campus or cellular phones 911

TS Golden Bear in port

Master of TS Golden Bear – 409-974-3677

TS Golden Bear while at sea

Wheelhouse – Call “1” on any of the ship’s sound powered phones or UHF channel 2

Bridge – Call “121” on any of the ship’s sound powered phones

Non-Emergencies/General

Texas A&M University at Galveston Police Department 409-740-4545

Texas A&M University at Galveston Safety Office 409-741-4029

Web Site: <http://www.tamug.edu/police/>

Other Important Telephone Numbers

Texas A&M Maritime Academy (TAMMA) Acting Deputy Superintendent 409-740-4477

TAMMA Commandant 409-740-4559

Texas A&M University at Galveston Campus Living & Learning (CL&L) 409-740-4445

Texas A&M University at Galveston Facilities Services 409-740-4547

Fire Department 911

Fire Log Information/Location

Texas A&M University at Galveston maintains a fire log that is available to the public and kept at the Environmental Health & Safety Office, Building 3026, Room 910.

How to access

Request by phone:

Texas A&M University at Galveston Environmental Health & Safety Office
409-741-4029

Request in writing:

Texas A&M University at Galveston Environmental Health & Safety Office
Building 3026, Rm. 910
PO Box 1675
Galveston, TX 77553

Aboard TS Golden Bear, the ship’s officers are responsible for keeping the ships logs. The fire log is available free of charge on the TS Golden Bear from the ship’s Master. The Master can be contacted by calling 409-974-3677. Personnel located at the Texas A&M University at Galveston main campus’ Environmental Health & Safety Office (see contact information above) can also assist with accessing the TS Golden Bear fire log.

A Message from Our Directors

The TAMMA is a highly specialized maritime training and education program dedicated to cadets at Texas A&M University at Galveston (TAMUG). As part of the TAMMA program, a public vessel owned by the United States Department of Transportation's Maritime Administration (Maritime Administration) is utilized by the TAMMA under the ship use memorandum of agreement. During the Summer Sea Term, the ship serves as a training cruise location away from campus which offers an opportunity to practice theoretical knowledge taught in the classroom. Supervised sea service is required for TAMMA cadets pursuing merchant mariners credentials (MMC) issued by the United States Coast Guard (USCG).

Ships utilized during the Summer Sea Term are on-campus student housing locations assigned to maritime cadets enrolled in the TAMMA's training program for the duration of their training cruise. In accordance with the Clery Act, these ships meet the criteria of on-campus student housing when operating as training cruise locations for the TAMMA. TAMMA students do not reside on the ships at other times.

Due to the COVID-19 pandemic and shelter in place precautions and requirements, the 2020 TAMMA Summer Sea Term did not utilize another vessel for its training sea term. A vessel use agreement for another vessel is planned to be reinstated in summer 2021. The most recently utilized vessel for a TAMMA Summer Sea Term, through a use agreement, occurred on the Training Ship (TS) Golden Bear from July 2019 to August 2019. Accordingly, policies included in the 2020 Annual Fire Safety Report reflect TS Golden Bear protocols.

The 2020 Annual Fire Safety Report includes statistical data for calendar years 2019, 2018, and 2017 for fires reported as occurring on each ship for the time period specified in the agreement, i.e., during each year's respective TAMMA Summer Sea Term. Ships utilized during the Summer Sea Terms disclosed in the 2020 Annual Fire Safety Report include the TS Golden Bear (2019 and 2017), TS Golden Bear (2018 and 2017), TS State of Michigan (2017), and TS State of Maine (2017).

This publication is designed to provide information about services, programs and statistical information as required by law. If you have any questions or suggestions concerning this publication, please contact the TAMMA Captain Allan Post at 409-740-4477, posta@tamug.edu or the TAMMA Commandant at 409-740-4559, eric.vanvelzen@tamug.edu.

Policy for preparing the Annual Fire Safety Report

TAMMA composes the Annual Fire Safety Report and maintains a log of fire statistics with information and input from various sources such as the Texas A&M University at Galveston Office of the Commandant, Office of Student Affairs, and the Texas A&M University Office of Risk, Ethics, and Compliance (OREC).

The Annual Fire Safety Report is published every year by October 1st and contains three years of selected fire statistics in accordance with the Higher Education Opportunity Act (HEOA). This, the 2020 report, contains the statistics for calendar years 2017 through 2019.

Annual Fire Safety Report and Related Information

The Annual Fire Safety Report is required by the HEOA for any Title IV institution that maintains an on-campus student housing facility. Per HEOA, an institution that maintains an on-campus student housing facility must collect fire statistics, publish an Annual Fire Safety Report, and keep a fire log.

The Clery Act was amended by HEOA in 2008, requiring future reports to include campus housing fire safety statistics. The information contained in this document relates to fire safety for on-campus student residential housing only.

A copy of the Annual Security Report for Texas A&M University Maritime Academy Summer Sea Term may be requested by emailing Texas A&M Galveston Police at police@tamug.edu or by calling 409-740-4545. The Annual Security Report can be found at the following OREC website: <https://orec.tamu.edu/wp-content/uploads/TAMUMaritimeAcademyAnnualSecurityReport.pdf>.

Notifications

Each year, an e-mail notification is sent to all current students, faculty, and staff providing the web site to access this report. Upon request, prospective students and employees and others may obtain a written paper copy of the report from Environmental Health and Safety located at 200 Sea Wolf Parkway, Bldg. 3026, Room 910, P.O. Box 1675, Galveston, TX 77553, by calling 409-741-4029, by emailing Phillipm@tamug.edu, or visiting the following OREC website: <https://orec.tamu.edu/wp-content/uploads/TAMUMaritimeAcademyAnnualFireReport.pdf>.

Prospective employees are notified about the Annual Fire Safety Report through an email distributed when applying for a position and via the Texas A&M University Division of Human Resources and Organizational Effectiveness website at <https://jobpath.tamu.edu> through a link on the right menu bar called safety and security notices. Employees are also notified via a link on the Human Resources webpage titled Required Employee Notices & Important Reminders: <http://employees.tamu.edu/employees/required-notices/>.

Prospective students are notified of the availability of the Annual Fire Safety Report through an email distributed when applying for admission. Prospective students and parents of students can also read about and reference Clery Act information on the Office of Admissions webpage (<http://admissions.tamu.edu/>) via a link titled “Campus Safety” located at the bottom of the webpage.

The fire log is available free of charge on the TS Golden Bear from the ship’s Master. The Master can be contacted by calling 409-974-3677. Personnel in Texas A&M University at Galveston’s Environmental Health and Safety Department can also assist with accessing the TS Golden Bear fire log (200 Sea Wolf Parkway, Bldg. 3026, Room 910, Galveston, TX 77553). A request can be made by phone at 409-741-4029 (Environmental Health and Safety Department) or 409-740-4715 (TAMMA Office).

Reporting Fires

Per federal law, Texas A&M University is required to annually disclose statistical data on all fires that occur in on-campus housing facilities. In the event of an emergency on Texas A&M University at Galveston campus or while the TS Golden Bear is at port, please call 911. When the TS Golden Bear is at sea, report a shipboard emergency by telephone to the Wheelhouse by dialing “1” on any of the sound powered phones located strategically throughout the ship or by hailing UHF channel 2.

Additionally the bridge can be called at 121 on the sound powered call system while the ship is underway. When reporting an emergency, state your name, duty, position, where you are calling from, and a description of the situation. If you are reporting a suspected fire situation, indicate whether you see smoke or smell smoke and how it smells (electrical, trash, petroleum, etc.). Additional mechanisms which should be used to report emergency situations include pull-box fire alarms located throughout the TS Golden Bear.

Below are the non-emergency phone numbers students and employees should call to report fires that have already been extinguished in on-campus student housing. These phone numbers are for fires which you are unsure whether the Texas A&M Galveston University Police or the TAMMA Administrators may already be aware. If you find evidence of such a fire or if you hear about such a fire, please contact one of the following. For purposes of including fire statistics in the annual fire safety report, employees and students should report all instances that a fire occurred in on-campus student housing to the individuals listed below.

Mike Phillips
Assistant Manager Environmental Health & Safety, Fire Marshal
Phillipm@tamug.edu
409-741-4029

Dee Ann Haney
Lab and Occupational Safety Coordinator
Haneyd@tamug.edu
409-741-4055

Neil Golemo
Director of CL&L
golemon@tamug.edu
409-740-4469

Sam Martinez
Chief, University Police
martinez@tamug.edu
409-740-4548

The Master of the Vessel (409-974-3677) is the individual responsible for tracking fires on the TS Golden Bear while docked and while at sea.

When calling, please provide as much information as possible about the location, date, time, and cause of the fire.

Fire Safety Education and Training Programs

All TS Golden Bear personnel are instructed in safety management, emergency procedures, and action in normal operations and emergencies. The TS Golden Bear's Safety Management System (SMS) provides a framework of policies to increase shipboard safety. The SMS contains policies on vessel operations processes and emergency response to be implemented by officers, crew, and cadets. The TS Golden Bear's Safety Equipment Manual contains a detailed explanation of all TS Golden Bear

safety equipment and is issued to all cadets and crew. All persons aboard the TS Golden Bear should familiarize themselves with the location of firefighting equipment, call boxes, and procedures detailed in the TS Golden Bear SMS and Safety Equipment Manual.

Processes within the SMS must be followed when the Master and Chief Mate are assigning tasks. The SMS is posted in sea officer rooms, public access areas, and on all public computers aboard the TS Golden Bear. It is the responsibility of all persons aboard the vessel to become familiar with the SMS and to use it in daily shipboard routine. Detailed instruction manuals called Standing Orders are also located in the Bridge and Engine Rooms. All watch personnel should familiarize themselves with Standing Order information before assuming a watch position. Failure to comply with written safety policies may result in disciplinary measures including dismissal.

All crew and cadets are required to complete a safety orientation process prior to the ship's departure. The safety orientation includes learning about the Station Bill (matrices posted throughout the vessel which specify special duties and duty stations of each crew member for various emergencies) and developing an awareness for recognizing general shipboard safety, onboard dangers, the ship's structural fire integrity, basic fire prevention, potential fire hazards, and how to react upon discovering a fire. More specifically, many individuals aboard the TS Golden Bear are assigned specific responsibilities on the Station Bill by being assigned to the At Sea Fire Party. This select group of officers, crew, and cadets are trained separately prior to the Sea Term to be an effective firefighting team.

The At Sea Fire Party and shipboard personnel participate in required fire and abandon ship drills scheduled weekly while the TS Golden Bear is at sea. The In Port Fire Party, as assigned through the In Port Watch Bill, is drilled prior to arriving at a specific port. The drills assist students in developing an understanding of procedures to be followed during actual emergencies.

Basic fire safety instruction is provided to all students at the Texas A&M University at Galveston campus by multiple means. Each dorm room is provided with an instructional sign located on the back side of the door containing instructions on what to do in an emergency. Students also participate in two fire drills each semester to help ensure they understand the evacuation procedures during an emergency. Additionally, Community Leaders (staff) receive specific training during orientation outlining their responsibilities during various emergencies. Hands-on fire extinguisher training is also available on request. In addition, ongoing education and safety awareness is available to all campus personnel on our campus website via the links below.

<http://www.tamug.edu/emergency/noshow/Fire.html>

<http://www.tamug.edu/emergency/index.html>

<http://www.tamug.edu/emergency/Emergency%20Procedures/FireHAZMAT.html>

About Texas A&M University at Galveston

Texas A&M University at Galveston Mission Statement

Texas A&M University at Galveston is a special-purpose institution of higher education for undergraduate and graduate instruction in marine and maritime studies in science, engineering and business and for research and public service related to the general field of marine resources. The institution is under the management and control of the Board of Regents of The Texas A&M University System, with degrees offered under the name and authority of Texas A&M University at College Station.

Accreditation

Texas A&M University is fully accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACS-COC). As a branch campus, Texas A&M University at Galveston is included in that process. In addition, Offshore and Coastal Systems Engineering (OCSE) is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). Marine Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET.

Ocean voyages, sailing in Galveston Bay, beachfront experiments and independent study complement the rigorous classroom experience at our island campus. The by-the-sea campus environment enhances the unique curricular offerings. The atmosphere fostered by the faculty, staff and students emphasizes the intimate relationship between the University and the sea. Texas A&M University at Galveston is recognized nationally for academic excellence. The ocean-oriented academic programs are accredited regionally and professionally.

Academics

Texas A&M University at Galveston offers ocean-oriented, four-year courses with excellence in business, oceanographic and physical sciences, biological sciences, engineering and transportation and liberal arts. Degrees are awarded from Texas A&M University. Computer science and technical writing courses are taught across curricula, regardless of a student's major field. In every course each semester, formally administered questionnaires invite students to appraise the effectiveness of teaching. Several unique courses have been developed in response to the university's marine orientation. For instance, "Literature of the Sea" looks at the sea through the works of great authors. "Introduction to Marine Sciences" introduces students to a number of disciplines through lectures, seminars and industrial contacts. The cruise geography course emphasizes the port areas being visited.

TAMMA

The TAMMA provides an opportunity for students to learn how to operate and maintain an ocean-going vessel. In addition to classroom and field training during the regular school year, students sail aboard a training ship during three summer cruises to gain practical experience in seamanship, navigation, and operations. Cruises are typically varied to include Northern Europe, the Caribbean, the Mediterranean and the United States. At the conclusion of the program, Midshipmen are tested to become licensed as officers in the U.S. Merchant Marine and may seek employment in the exciting field of marine transportation as a licensed Third Mate or Third Assistant Engineer.

The Naval Reserve Officer Training Corps (NROTC) Program offers men and women an opportunity to qualify for a commission in the Navy while attending Texas A&M University at Galveston. Any student may join the NROTC Program either as a National Scholarship winner or as a non-subsidized college program student. The TS Golden Bear is utilized by the TAMMA as a training cruise location away from campus which offers an opportunity for students to practice theoretical knowledge taught in the classroom. Onboard supervised sea service (sea service accrual) is required for TAMMA cadets pursuing MMC issued by the USCG.

On-Campus Housing Facilities

The TAMMA utilizes the TS Golden Bear which contains berthing space assigned to maritime cadets, enrolled in TAMMA's training program, for the duration of the training cruise. Berthing is defined as

space or accommodations aboard a vessel assigned to persons for their personal use such as beds, closets, showers/toilets, and desks. Berthing of students is permitted by the Maritime Administration as it is relevant to the training program. The berthing space on the TS Golden Bear is considered on-campus student housing for the duration of the training cruise, in accordance with the Clery Act. TAMMA students do not reside on the TS Golden Bear at other times.

Fire Safety Policies

TS Golden Bear's SMS safety policies are consistent with industry standards. The Master shall also write their own set of standards known as the Master's Standing Orders which apply to all personnel and are posted in sea officer rooms, public access areas, and on all public computers aboard the TS Golden Bear. Additionally, a Fire Control Plan contains a detailed deck plan of the ship and identifies all fire equipment including portable and fixed equipment. The Fire Control Plan is communicated during vessel familiarization and is also provided in the vessel's Safety Equipment Manual. Personnel serving on the vessel's fire team are required to be familiar with the Fire Control Plan.

The following are fire safety/prevention measures applicable to the TS Golden Bear and adopted by Texas A&M University at Galveston administration to provide for the operational safety and training of all personnel involved in vessel field activities associated with Texas A&M University at Galveston.

1. Keep oil and grease out of bilges.
2. Cleanup any spilled fuel or lube oil immediately and properly dispose of it ashore.
3. Stow cleaning materials off the boat.
4. Keep all areas free of waste material.
5. Use proper containers for flammable liquids.
6. Be alert for suspicious odors and fumes, and vent all spaces thoroughly before starting engine(s).
7. Remember life comes before property.

Appliances and Equipment Including Portable Electrical Appliances

No unauthorized electrical equipment shall be brought on board the vessel. Unauthorized equipment includes, but is not limited to, fans, hot plates, curling irons, televisions, stereos, and personal equipment. Only battery operated alarm clocks are allowed on board the TS Golden Bear as they are more reliable, easier to stow, and pose no electrical hazard due to overloading of circuits. No televisions shall be allowed in cadet staterooms.

Large capacity electrical appliances such as refrigerators, air conditioners, microwaves, toaster ovens, and similar equipment are prohibited. All electronic equipment must be secured for sea at all times.

Arson/Campfires (Fire and Life Safety Program)

If arson is suspected, no matter how small the incident, contact the Master at 409-974-3677. Do not alter the fire scene in any way, unless you are trying to extinguish a live fire. The Master will investigate any possible arson.

Other than authorized "hot work" (as described in the SMS), no other type of burning is permitted on the vessel.

Candles/Incense/Wax Warmers/Open Flames

Incense, candles, and the introduction or use of flammable, combustible, or non-controlled combustible devices aboard ship are prohibited and grounds for dismissal from the Corps.

Cooking

Cooking is prohibited in TS Golden Bear staterooms. Eating shall be confined to messing areas. Open or unsealed snack foods will not be kept in staterooms.

Decorations (Fire and Life Safety Program)

Other than approved printed material (e.g., written announcements, plan of the day, etc.), decorations (including but not limited to holiday decorations) are not permitted.

Electrical Power Strips and Extension Cords (Fire and Life Safety Program)

The misuse of electrical outlets onboard the TS Golden Bear can expose the entire community to extreme hazard. Outlets are shared by all occupants of a stateroom or berthing area and must not be overloaded due to electrical fire risk. Extension cords and outlet doublers are not authorized. Surge protectors or power strips, if used, must have a fault interrupting capability (a fuse). All electronic equipment must be secured for sea at all times.

Emergency/Safety Equipment

The doors on the TS Golden Bear are constructed especially for the ship and for fire protection. For safety, hatches and doors should be fully closed or fully opened and latched/secured. The TS Golden Bear is equipped with sound-powered phones. The button on a sound-powered phone must be pushed to speak. Port holes must be closed at all times unless there is an emergency onboard that requires opening. Keeping port holes windows closed maintains fire and smoke boundaries, assists in controlling humidity inside the ship, and assists in air conditioning and heating boundaries.

The use of or tampering with ship's equipment, in general, and with safety equipment specifically, except for drill or an actual emergency, is a violation of USCG Regulation and is prohibited. Any such action will also be treated as a violation of Standing Orders, which will result in demerits. In certain cases, this may also lead to a Captain's Mast as determined by the Master or the Commandant. Emergency equipment includes, but is not limited to fire hoses, lifeboats, watertight hatches, and smoke detectors.

Fireworks/Explosives/Hazards

Combustible materials such as printed material are limited to the vessel's bulletin/announcement boards.

Only safety matches are permitted for use aboard ship. "Zippo" type lighters are permitted, but lighter fluid may not be stored in berthing areas.

The unauthorized introduction, use, or storage of flammable, or combustible explosive material aboard ship is strictly prohibited.

In incidents involving discharges of oil or hazardous substances, a report will be filed with the USCG Officer in Charge of Marine Inspection having jurisdiction over the location where the discharges occurred or nearest the port of first arrival following the discharge. Any Texas A&M University at

Galveston crew member or cadet who has been identified as being directly involved shall be tested as per requirements of federal regulations and results reported to the same Officer.

Smoking

Texas A&M University prohibits smoking and use of all forms of tobacco on university property (property located in the state of Texas that is owned, operated, leased, occupied or under the administrative control of the President of Texas A&M University).

On the TS Golden Bear, tobacco usage is to be permitted only in the designated smoking area. The Master shall determine the designated smoking area after careful consideration of all safety aspects related to fire hazards and preventing exposure to second hand smoke. Smoking aboard may be completely prohibited for safety reasons such as bunkering.

On the TS Golden Bear, smoking is secured during field operations, field day, and by order of the Master of the vessel. Smoking is not permitted anywhere in the interior of the vessel. When smoking throughout the vessel is secured, the words "Smoking Lamp is secured" will be passed/announced about the vessel.

When smoking on deck, do not throw cigarette butts over the side as the ship's motion may blow back onto the deck and start a fire. This is also a pollution violation. Extinguish cigarettes thoroughly and dispose of it properly. Any person found improperly disposing of butts on deck will be charged with a Class One violation of Standing Orders.

Use of electronic cigarettes is prohibited outside of designated smoking areas.

Cell Phones

Cell phone use and/or possession is not allowed at cadet formations; while on work or watch or at watch muster stations; during class; during emergency drills; in the vicinity of ship operations during arrival/departure (line handling and mooring, etc.); and/or other evolutions where safety is jeopardized by their use (while the ship is engaged in bunkering, for example). Cell phone use is authorized at all times at the fantail (excluding mooring and crane operations), within the confines of the house, and on outside walk ways and wing decks of the house as long as ship operations are not occurring in that area.

General

Cadet Officers or resident advisors in each residence facility are responsible for the maintenance of order, the preservation of property and the cleanliness of the area assigned to their organization.

The Master has responsibility under federal law to ensure that there is no contraband materials of any type aboard the TS Golden Bear during the cruise. The Master may at any time order a search of any space including rooms or lockers for contraband materials. Smuggling is a serious crime and lack of knowledge of the regulations is not an excuse. Security regulations also prohibit introducing any dangerous substances or unauthorized persons to the vessel. By participating in the training cruise, you acknowledge the legal authority of the Master to make warrantless searches of your living spaces and lockers when he/she believes that such a search is necessary to comply with federal law.

Inspection Program

Annual Inspections

The TS Golden Bear is subject to regulations as per the USCG approved Vessel Security Plan enforced by both internal and external audits and inspections. Once per year, inspections are conducted to assure all fire safety systems and system devices are working as designed.

All berthing areas on the TS Golden Bear are subject to daily inspections or at any time deemed necessary by the Master of the ship. Master's inspections may be earlier. Every day at approximately 0900, while underway, the Commandants, accompanied by the cadet leadership, will inspect all cadet berthing areas. This inspection will focus on general cleanliness, safety, and sanitary condition of the spaces. At all times cadet berthing spaces must be in a neat and orderly condition with racks made. This inspection team will also be checking for serviceability and sanitary conditions of all sinks, heads and showers. Any standing water will be addressed. All maintenance issues will be reported appropriately for repair. There will be no gear adrift and will be subject to removal if found during the inspection. Gear adrift in adverse weather/sea conditions could be tossed around and cause injury. Any berthing areas that fail will be re-inspected at 1900 the same day.

Each cadet assigned to a berthing area on the TS Golden Bear is held responsible for any damage to the area including furniture, fixtures, and equipment. The cadet will be held liable for the full extent of the damage including cost of repairs and manpower.

Fire Safety Systems Inspection

The TS Golden Bear and its systems are inspected and certified by the USCG as required by federal law. In accordance with the Manual, all systems must be inspected during vessel and equipment checks including fuel, oil system, and wiring. Abrasions, cracked wiring, or pinholes in oil and fuel lines are checked. Any discrepancy must be corrected at the time it is discovered. A fire watch is maintained with security rounds between 2000 and 0600 to check for fire in most areas of the ship.

Evacuation Procedures

If You Hear a Fire Alarm

The decision to abandon the TS Golden Bear (abandon ship) is made by the Master. Every person receives training in water survival techniques, including the use of personal floatation devices, life rings and lifeboat/life raft survival. Details of the abandon ship response are complied with by the Bridge or Quarterdeck watch as appropriate. Under all conditions of abandon ship the notification signal is a succession of more than six (6) short blasts followed by one (1) long blast of the whistle supplemented by a comparable signal on the general alarm. When this signal is sounded, all cadets/crew will proceed to their assigned disembarking stations and carry out their duties as assigned on the station bill.

Each crewmember on the TS Golden Bear is expected to recognize emergency signals from the Bridge and where they are to report. Instructions are also located on the Station Bill which lists all cadet's duties in case of fire or other emergency and are posted throughout the vessel in public areas. Upon hearing the alarm, all crew and cadets should proceed to their assigned disembarking stations and carry out their abandon ship duties as assigned on the Station Bill or as directed by the Master.

Muster will occur at the fire and emergency stations where specific instructions will be given on the public address system or on portable radios. After reporting to abandon ship stations all personnel

should be aware of signals of the ship's whistle used by the Master to direct actions with the boats/rafts. One short blast means lower boats. Two short blasts mean stop lower boats.

If You Discover a Fire

Any person who discovers a fire shall immediately report the presence of fire to the Bridge or Quarterdeck Watch. To report the fire, use at least one of the following methods:

- Expediently go to the Bridge or the Quarterdeck and report to the Deck Watch Officer or the most senior Cadet on watch or direct a responsible person to report to the Bridge or Quarterdeck.
- Utilize pull-box fire alarms located throughout the ship.
- Call the wheelhouse on the sound-powered phone by dialing 1 or hailing UHF channel 2.

The persons involved in the discover/report should attempt to extinguish the fire within the level of their training, establish boundaries around the affected area to keep personnel away from the fire, and gather information about the fire. The person reporting the fire should remain at the scene to make a full report to the Chief Mate when he/she arrives.

The signal for a fire and emergency is a continuous blast of the ship's whistle for a period of not less than ten seconds supplemented by the continuous ringing of the general alarm for not less than ten seconds. When the signal is sounded, all cadets and crew should carry out assigned duties as per the Station Bill or as directed by the Master.

Firefighting Procedures

1. Shut off all engines, generators, and ventilation systems.
2. Recover and evacuate anyone injured.
3. Locate the fire and evaluate the extent of the fire.
4. Cut off air supply to fire. Close items such as hatches, ports, doors, ventilators and louvers, and shut off ventilation system.
5. Cut off electrical system supplying affected compartment if possible.
6. If safe, immediately use portable fire extinguishers at base of flames for flammable liquid or grease fires or water for fires in ordinary combustible materials. Do not use water on electrical fires.
7. If fire is in machinery spaces, shut off fuel supply and ventilation and activate fixed extinguishing system if installed.
8. Maneuver vessel to minimize effect of wind on fire.
9. If unable to control fire, immediately notify the USCG and other craft in the vicinity by radiotelephone.
10. Move passengers/embarked personnel away from fire, have them put on life jackets and if necessary, prepare to abandon the vessel.

If you enter a compartment and fail to extinguish a fire with a portable fire extinguisher, get out. Then close the door, hatch, or scuttle to confine the fire. During emergencies or drills the fire screen doors and watertight doors should be closed. Never pass through a fire screen door without first determining it is safe to do so. Never attempt to pass through a watertight door while it is closing, and never open one as a means of going to your station.

Once You Have Evacuated

While evacuation is underway, muster will occur at the fire and emergency stations where specific instructions will be given on the public address system or on portable radios. During evacuation while docked or at port, muster will occur at the dock/pier.

Evacuation Drills (Fire Drills)

Conducting fire drills and training on a regular schedule is necessary for the continued safety of the passengers, embarked personnel, crew, and the vessel. Fire drills and training ensure that crew members are familiar with their duties to enable them to perform effectively in an actual emergency.

Drills during training are required by the USCG and the Convention for the Safety of Life at Sea. Firefighting techniques and procedures such as damage control, emergency repairs, how to safely abandon ship, are practiced to prepare for real emergencies at sea. While at sea, emergency drills and safety demonstrations are conducted weekly. Drills are not usually conducted in port or on weekends. Drills are normally conducted at 1030 or 1530 but may be conducted at any time. All hands are required to participate. Musters are taken at drills to account for all persons on board. Unannounced drills may be conducted at any time at the discretion of the Master.

Regular abandon ship and person overboard drills and training are necessary for the continued safety of the passengers/embarked personnel and crew to ensure that crew members are familiar with their duties to enable them to perform effectively in an actual emergency. While it is the Master's responsibility and authority to decide when to abandon ship, it must be stressed that staying with the vessel until the last practical moment is better than entering the water or a survival craft.

During calendar year 2019 eleven total fire drills, or one fire drill for each week of the duration of the summer sea term, were held on the TS Golden Bear.

Description of Fire Safety Systems

The Fire Control Plan includes a detailed deck plan of the ship identifying all fire equipment, both portable and fixed. The Master Fire Control Station is located on the navigation bridge. The station includes a variety of master shutoffs and reset switches that can be used in emergency situations. The switches, detectors, gauges, and alarm systems located on the bridge include: Fire Alarm Panel; Sliding Water Tight Door Control Panel; General Alarm and Paging system; Ventilation Shutdowns and Fire Dampers; Magnetic Door Holdback Systems; Smoke Detecting Panel; and Fire Main Pressure Gauge.

Fire Alarms

On board the TS Golden Bear there are many fire pull alarms located though out the ship including outside of every stair tower door, on the insider to every hatch leading outside the ship's houses, and on the outside of every exit door form the engine spaces. These pull alarms are red in color and located chest level on the bulkheads. When activated by pushing in and pulling down on the handle, a signal will be sent to the fire detection panel on the bridge and quarterdeck, indicating which pull has been activated, and the general alarm will also sound immediately. If a fire is seen by any person, there should be no hesitation to pull the alarm. However, these alarms must not be pulled if there is not a fire.

No pull alarms are located out on deck. They must be activated from within the house. Also, in the Engine Room, there are two alarms located on the port and starboard side of the Engineers Operating Station (EOS). No other pull alarms are located elsewhere in the Engine Room.

Heat and Fire Detection

A fire detector is a device that gives warning when fire, excessive heat, or smoke occurs in the area protected by the device. The fire detection system relays the alarm to an indicator panel, located on the bridge and quarterdeck watch office, which gives both an audible and visual alarm and indicates where the activated detector is located. Thus, the watch, both at sea and in port, is the first to receive a fire detection alarm and is responsible for initiating the proper action.

The fire detection system is an automatic system. Sensors measure either temperature (heat detector) or ultra violet light level (flame scanner). This measurement is sent to a system module which compares the measurement to a setpoint, computes whether it is above or below setpoint, and initiates an alarm if it is above setpoint.

In the engine spaces, should a heat or flame detector sense a fire, or a pull station be activated, all sirens will sound, all strobe lights will flash, alarm bells with visual signals will be activated in the EOS, and the activated detector will be indicated on the control panel on the bridge and quarterdeck watch office. If a fire is detected in a non-engine space, only the fire detection panel in the pilot house and in the quarterdeck watch stations will alarm. If this alarm is not acknowledged (silenced or reset) within two minutes, the system will automatically activate the ship's general alarm system.

Fire Isolation

Fire/Watertight Doors: The ship is divided into five fire zones. The zone boundary bulkheads and doors are all rated A- 60, meaning that they will hold up against fire and smoke for 60 minutes. The zone boundaries below the main deck are watertight, meaning that all penetrations (pipes, electrical cables, etc.) are watertight. The only doors are watertight doors in the engine spaces between zones 3 & 4 and zones 4 & 5. Interior bulkheads and doors above the main deck are fire and smoke proof for 60 minutes (A-60) and the exterior bulkheads and doors are weatherproof in addition to their A-60 rating.

Watertight Doors: The watertight doors between the engine room and AMR and between AMR and shaft alley are hydraulically operated. They can be operated locally, from E.O.S., from the fire control room, from the bridge, or from an exterior station on the 02 deck, starboard side, near lifeboat #3. The watertight doors can also be controlled remotely from either EOS, the fire control room, or the bridge.

Local controls at the door include a motor switch for opening and closing the watertight door using the electric hydraulic pump. The switch is spring loaded, so you must hold the switch in the direction that you want the door to move until the door reaches the desired position, then let go of the switch. Also at the local control is a hydraulic hand pump which can be used to open or close the door, depending on the direction of rotation that you move the crank handle. An electric pump motor control switch and a hydraulic hand pump are located on each side of the door so that the door can be opened or closed from either side.

Ventilation Fans: The ship is designed so that each fire zone has its own ventilation system and, in general, the ducts do not transverse fire boundaries. Remote shutdowns located on the bridge, in E.O.S., and in the fire control room are arranged so that only the area affected by the fire is shut down. Even with the supply vent fans secured, the fire can still draw air through the vents and use them to spread. Thus, dampers are interspersed throughout the ducting system so, that sections can be isolated to cut off air and isolate the fire. The dampers for the engine room, auxiliary machinery room, boiler room, and emergency diesel room will close automatically when the fire suppression system is actuated. The emergency diesel generator air damper can be shut down from outside the space, preventing air from entering the space to support combustion.

Fixed Firefighting Systems

Firemain, Fire Pumps, and Fire Stations: The firemain system supplies water to all areas of the vessel. Fortunately, the supply of water at sea is limitless. The movement of water to the fire location is restricted only the capacity of the system itself, the effect of the water on the stability of the ship, and the capacity of the fire pumps.

The firemain system is composed of the fire pumps, piping (main and branch lines), control valves, hose and nozzles. The fire pumps provide the power to move water through the piping to fire stations located throughout the ship. The fire station valves, hose, and nozzles are used to control the firefighting water and direct it onto the fire.

Carbon Dioxide (CO₂) Fire Extinguishing

Engine Room CO₂ System: A semi portable fire extinguisher is one from which a hose can be run out to the fire. The other components of the system are fixed in place, usually because they are too heavy to move. The semi-fixed (semi portable) system provides a way of getting a sizeable amount of extinguishing agent to a fire rapidly. This allows the fire fighter to make a sustained attack on the fire.

Portable Firefighting Equipment: CO₂ extinguishers are used primarily on class B (petroleum) and class C (electrical) fires. The most common sizes contain from 5 to 20 pounds of CO₂, not including the weight of the relatively heavy cylinder. The CO₂ is mostly in the liquid state at a pressure of 850 psi. The range varies between 3 to 8 feet and the duration between 8 to 30 seconds, depending on the size. Portable stored pressure dry chemical fire extinguishers range in size from 2 to 30 pounds. They have a range of from 10 to 30 feet. Extinguishers under 10 pounds have a duration of 8 to 10 seconds while larger extinguishers provide up to 30 seconds of discharge time. The extinguisher has a small pressure gauge near the handle so that the operator can tell if there is sufficient pressure in the extinguisher. The extinguisher is carried and used upright.

Fire Main and Sprinkler Systems

The fire main system has a 125-psi working pressure and a 150-psi design pressure. The piping system is classified as class II with ABS and USCG regulations.

The sprinkler system is located throughout the forward and after houses. All workmanship, calculations and design meets Solas and USCG 46 CFR 54.01 requirements. The design system pressure is 100psi. The sprinkler tank is charged with 410 gallons of fresh water and pressurized with 165 psi. The pressure relief is set at 175psi @ 250F.

Halon Fire Suppression System

The fixed Halon 1301 fire suppression system on the TS Golden Bear is designed to fight fires in the engine room, the auxiliary machinery room, the Deck flammable liquids storeroom (2-166-2), and the emergency generator room; spaces where the possibility of an oil fire are the greatest. Halon 1301 enters the space as a colorless, odorless, electrically nonconductive gas and acts to chemically break the combustion chain reaction. The Halon 1301 fire extinguishing system is a very effective way to extinguish an “out of control fire” by flooding the compartment into which it is released. This means that all personnel must be evacuated, the compartment sealed off (all doors and hatches closed), and the ventilation secured. There is only one charge of Halon 1301 for each space, so it must be used correctly the first time. Failure to completely seal off the space before releasing the Halon gas means that this fire suppression system will be ineffective with disastrous results. Halon should only be released into a space when ordered by the ship’s most senior officers, the Captain or the Chief Engineer.

Carbon Dioxide System

A method of extinguishing fires by smothering is the use of the inert gas, carbon dioxide (CO₂). CO₂ is about 1.5 times heavier than air. This makes CO₂ a suitable extinguishing agent because it tends to settle and blanket the fire. CO₂ is a dry, non-corrosive gas, which is inert when in contact with most substances and will not leave a residue and damage machinery or electrical equipment. In both, the gaseous state and the finely divided solid (snow) state, it is a nonconductor of electricity regardless of voltage, and can be safely used in fighting fires that would present the hazards of electrical shock. CO₂ extinguishes the fire by diluting and displacing its oxygen supply. If gaseous CO₂ is directed into a fire so that sufficient oxygen to support combustion is no longer available, the flames will die out. Depending on the fuel, this action will take place when the 23 percent oxygen content, normally present in air, is diluted with CO₂ below 15 percent oxygen. Some ordinary combustible class A fires require that the oxygen content be reduced to less than 6 percent in order to extinguish glowing combustion (smoldering fire).

On board the TS Golden Bear, the fixed CO₂ firefighting system is used to protect the boiler room, the Engineering flammable liquid storeroom (2-169-2), and the paint locker.

Aqueous Film-Forming Foam (AFFF) System

The AFFF produces a water film that is only 0.001 inches thick, but is able to float on an oil surface and both block the generation of vapor and cool the surface. The fixed AFFF system on the TSG Golden Bear is designed to mix the proper proportion of foam concentrate and water and then pump the foam solution to one of three locations through the AFFF piping system. For the engine room and auxiliary machinery room locations, the foam solution flows out of pipes located near the tank tops (bilges). For the helo deck, the foam solution is delivered to the two AFFF fire stations located forward and on either side of this deck. The proportioning system for mixing the AFFF foam concentrate with water is located in the AFFF room, main deck, port side.

Aqueous Potassium Carbonate (APC) System

APC is used on the TS Golden Bear as the extinguishing agent in the fixed firefighting system over the galley cooking range and associated exhaust ductwork. When the APC is sprayed over the burning surface, a soap like froth is generated that excludes air from the surface of the burning material.

A description of the TS Golden Bear fire safety systems, including for on-campus housing, is summarized in the following table.

Type
Fire alarm monitoring system: Pyrotronics system – utilizes smoke, heat, and infrared sensors to monitor the engine room
Fire alarm monitoring system: Warmold system – monitors all living quarters and passageways from quaterdeck to gym
Local smoke detectors
Emergency battery-powered lights
Magnetic fire screen doors and trip switch
Interior stairwells (egress)
Exterior stairwells (egress)
Exterior ladders (fire escape)
Fire stations (to charge fire hoses)
Fire extinguisher devices
Fire alarm pull stations
Audible alarm

Fire Safety Definitions (Department of Education)

On-campus student Housing Facility: Any student housing facility that is owned or controlled by the institution, or is located on property that is owned or controlled by the institution, and is within the reasonably contiguous geographic area that makes up the campus is considered an on-campus student housing facility.

Cause of fire: The factor or factors that give rise to a fire. The causal factor may be, but is not limited to, the result of an intentional or unintentional action, mechanical failure, or act of nature.

Fire: Any instance of open flame or other burning in a place not intended to contain the burning or in an uncontrolled manner.

Fire drill: A supervised practice of a mandatory evacuation of a building for a fire.

Fire-related injury: Any instance in which a person is injured as a result of a fire, including an injury sustained from a natural or accidental cause, while involved in fire control, attempting rescue, or escaping from the dangers of the fire. The term “person” may include students, employees, visitors, firefighters, or any other individuals.

Fire-related death: Any instance in which a person

- (1) Is killed as a result of a fire, including death resulting from a natural or accidental cause while involved in fire control, attempting rescue, or escaping from the dangers of a fire; or
- (2) Dies within one year of injuries sustained as a result of the fire.

Fire safety system: Any mechanism or system related to the detection of a fire, the warning resulting from a fire, or the control of a fire. This may include sprinkler systems or other fire extinguishing

systems, fire detection devices, stand-alone smoke alarms, devices that alert one to the presence of a fire, such as horns, bells, or strobe lights; smoke-control and reduction mechanisms; and fire doors and walls that reduce the spread of a fire.

Value of property damage: The estimated value of the loss of the structure and contents, in terms of the cost of replacement in like kind and quantity. This estimate should include contents damaged by fire, and related damages caused by smoke, water, and overhaul; however, it does not include indirect loss, such as business interruption.

On-Campus Housing Facility Fire Statistics

2017 On-Campus Housing Facility Fire Statistics

Facility Name	Building Address	Total Fires in Each Facility	Fire Number	Cause of Fire	Number of Injuries That Required Treatment at a Medical Facility	Number of Deaths Related to a Fire	Value of Property Damage Caused by Fire
TS Kennedy	Various*	0	0	n/a	n/a	n/a	n/a
TS Golden Bear	Various*	0	0	n/a	n/a	n/a	n/a
TS State of Michigan	Various*	0	0	n/a	n/a	n/a	n/a
TS State of Maine	Various*	0	0	n/a	n/a	n/a	n/a

2018 On-Campus Housing Facility Fire Statistics

Facility Name	Building Address	Total Fires in Each Facility	Fire Number	Cause of Fire	Number of Injuries That Required Treatment at a Medical Facility	Number of Deaths Related to a Fire	Value of Property Damage Caused by Fire
TS Kennedy	Various*	0	0	n/a	n/a	n/a	n/a

* Tables include statistical data for calendar years 2017, 2018, and 2019 for fires reported as occurring on each ship for the time period specified in the memorandum of agreement, i.e., during each year's respective TAMMA Summer Sea Term. Ships and their port locations vary by term. Ships used during the 2017, 2018, and 2019 Summer Sea Terms include the TS Golden Bear (2019 and 2017), TS Kennedy (2018 and 2017), TS State of Michigan (2017), and TS State of Maine (2017).

2019 On-Campus Housing Facility Fire Statistics

Facility Name	Building Address	Total Fires in Each Facility	Fire Number	Cause of Fire	Number of Injuries That Required Treatment at a Medical Facility	Number of Deaths Related to a Fire	Value of Property Damage Caused by Fire
TS Golden Bear	Various*	0	0	n/a	n/a	n/a	n/a

* Tables include statistical data for calendar years 2017, 2018, and 2019 for fires reported as occurring on each ship for the time period specified in the memorandum of agreement, i.e., during each year's respective TAMMA Summer Sea Term. Ships and their port locations vary by term. Ships used during the 2017, 2018, and 2019 Summer Sea Terms include the TS Golden Bear (2019 and 2017), TS Kennedy (2018 and 2017), TS State of Michigan (2017), and TS State of Maine (2017).

On-Campus Housing Initiatives

There are no future fire safety improvements planned for the TS Golden Bear.

Other Annual Fire Safety Reports and Annual Security Reports

Annual Security Reports and Annual Fire Safety Reports for other Texas A&M University locations are as follows and are available at the following Texas A&M University OREC website:

<https://orec.tamu.edu/clery/annual-security-report/>.

Other Texas A&M University Annual Fire Safety Reports

Texas A&M University at College Station

<https://orec.tamu.edu/wp-content/uploads/CSAnnualFireReport.pdf>

Texas A&M University at Galveston

<https://orec.tamu.edu/wp-content/uploads/GalvestonAnnualFireReport.pdf>

Texas A&M University Health Science Center Kingsville

<https://orec.tamu.edu/wp-content/uploads/KingsvilleAnnualFireReport.pdf>

Texas A&M University at Galveston, TS General Rudder

<https://orec.tamu.edu/wp-content/uploads/TAMUGGeneralRudderAnnualFireReport.pdf>

Other Texas A&M University Annual Security Reports

Texas A&M University College Station

<https://orec.tamu.edu/wp-content/uploads/CSAnnualSecurityReport.pdf>

Texas A&M University O.D. Butler, Jr. Animal Science Complex and University Farm

<https://orec.tamu.edu/wp-content/uploads/UnivFarmAnnualSecurityReport.pdf>

Texas A&M University RELSIS Campus

<https://orec.tamu.edu/wp-content/uploads/RELLISAnnualSecurityReport.pdf>

Texas A&M University at Galveston

<https://orec.tamu.edu/wp-content/uploads/GalvestonAnnualSecurityReport.pdf>

Texas A&M University at Qatar

<https://orec.tamu.edu/wp-content/uploads/QatarAnnualSecurityReport.pdf>

Texas A&M University Mays Business School at CityCentre

<https://orec.tamu.edu/wp-content/uploads/MaysAnnualSecurityReport.pdf>

Texas A&M University School of Law

<https://orec.tamu.edu/wp-content/uploads/LawAnnualSecurityReport.pdf>

Texas A&M University Health Science Center Bryan

<https://orec.tamu.edu/wp-content/uploads/HSCBryanAnnualSecurityReport.pdf>

Texas A&M University Health Science Center Dallas

<https://orec.tamu.edu/wp-content/uploads/HSCDallasAnnualSecurityReport.pdf>

Texas A&M University Health Science Center Houston

<https://orec.tamu.edu/wp-content/uploads/HSCHoustonAnnualSecurityReport.pdf>

Texas A&M University Health Science Center Kingsville

<https://orec.tamu.edu/wp-content/uploads/HSCKingsvilleAnnualSecurityReport.pdf>

Texas A&M University Health Science Center McAllen

<https://orec.tamu.edu/wp-content/uploads/HSCMcAllenAnnualSecurityReport.pdf>

Texas A&M University Health Science Center Round Rock

<https://orec.tamu.edu/wp-content/uploads/HSCRRAnnualSecurityReport.pdf>

Texas A&M University Health Science Center Temple

<https://orec.tamu.edu/wp-content/uploads/HSCTempleAnnualSecurityReport.pdf>

Texas A&M University Higher Education Center at McAllen

<https://orec.tamu.edu/wp-content/uploads/HECMcAllenAnnualSecurityReport.pdf>

Texas A&M University at Galveston, TS General Rudder

<https://orec.tamu.edu/wp-content/uploads/TAMUGGeneralRudderAnnualSecurityReport.pdf>

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