1. **9500GT vessel has 2 radars, one is down. What are domestic regs? What are international regs? Do we have any teeth as PSC?**
	1. We can enforce SOLAS regulation for this vessel, but no domestic as per CFR.
	2. SOLAS regs require two radars; the initial being a 9GHz / X-Band for ships over 300GT. The second can be either an additional, independent 9GHz or 3GHz.
		1. SOLAS (14) V/19:
			1. 2.7 All ships of 3,000 gross tonnage and upwards shall, in addition to meeting the requirements of paragraph 2.5, have:
			2. .1 a 3 GHz radar or, where considered appropriate by the Administration, a second 9 GHz radar, or other means, to determine and display the range and bearing of other surface craft, obstructions, buoys, shorelines and navigational marks to assist in navigation and in collision avoidance, which are functionally independent of those referred to in paragraph 2.3.2;
	3. 33CFR164: Navigation Safety Regulations require foreign vessels to be equipped with a single marine radar until the 10,000GT size.
		1. §164.35 (a):
			1. Requires all vessels to be equipped with a marine radar system for surface navigation
		2. §164.37 (a):
			1. Each [vessel](https://www.law.cornell.edu/definitions/index.php?width=840&height=800&iframe=true&def_id=ae0d073641d38988c050c03ae03228bf&term_occur=999&term_src=Title:33:Chapter:I:Subchapter:P:Part:164:164.37) of 10,000 gross tons or more must have, in addition to the radar system under [§ 164.35(a)](https://www.law.cornell.edu/cfr/text/33/164.35#a), a second marine radar system that operates independently of the first.
2. **What cite states that no changes will be made after a survey?**
	1. SOLAS (14) I/11(b): Maintenance of Conditions after Survey\*
		1. After any survey of the ship under regulations [7](http://www.regs4ships.com/docs/international/imo/solas/chp_01/07.cfm), [8](http://www.regs4ships.com/docs/international/imo/solas/chp_01/08.cfm), [9](http://www.regs4ships.com/docs/international/imo/solas/chp_01/09.cfm) or [10](http://www.regs4ships.com/docs/international/imo/solas/chp_01/10.cfm) has been completed, no change shall be made in the structural arrangements, machinery, equipment and other items covered by the survey, without the sanction of the Administration.
	2. ICLL Part 1, Article 15
		1. After any survey of the ship under [**Article 14**](http://www.regs4ships.com/docs/international/imo/conv/load_lines/pt1/articles/article_014.cfm) has been completed, no change shall be made in the structure, equipment, arrangements, material or scantlings covered by the survey, without the sanction of the Administration.

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1. **What are the zones for load lines?**
	1. ICLL Annex II details each individual zone and season with an incorporated chart.
		1. 46: Northern Winter Seasonal Zones and Areas
		2. 47: Southern Winter Seasonal Zone
		3. 48: Tropical Zone
		4. 49: Seasonal Tropical Areas
		5. 50: Summer Zones
		6. 51: Enclosed Seas
		7. 52: Winter North Atlantic
2. **When would only a fresh water load line be within regs?**
	* 1. Never. 46 CFR 42.13-30 (b)(5) states that the “following load lines shall be used”, includes fresh water and makes no exemption.
* Does 46CFR42.13-30(b)(5) apply to foreign ships that hold an ILLC?
	+ *§42.03-10*
		- *(c) Vesels of Countries signatory or adhering to the 1966 Convention*
			* *Vessels in compliance with a valid ILLC are in compliance with the CFR regs*
	+ *§42.13-1*
		- *“the regulations in this part are based on the assumption that, where there are other international requirements relating to the stability or subdivision applicable to vessels, these requirements have been met.*
* Which load line is the Plimsoll mark always equal to?
* *Summer*
1. **When would only a winter load line be within regs?**
	* 1. 46 CFR 42.13-30
			1. (e) Where the characteristics of a vessel, or the nature of the vessel’s service or navigational limits make any seasonal load lines inapplicable, these lines may be omitted.
			2. (g) (h) If vessel is a sailing vessel it may only need to mark WNA and F. If WNA and W are identical the WMA line may be omitted.
2. **What is a triangle load line used for?**
	1. 46CFR Part 45: Great Lakes Load Lines
		1. **§ 45.33 Diamond.**
		2. (a) Each vessel must be marked with the diamond mark described in figure 2 of §45.35 amidships below the upper edge of the deck line on each side with the center of the loadline mark at a distance below the deck line equal to the summer freeboard assigned under this part.
		3. (b) The width of each line in the loadline mark must be 1 inch.
3. **Why would a plimsoll be submerged upon vessel arrival? Is this within regs?**
	1. A vessel with a submerged plimsoll/appropriate load line for the zone/season submerged could very well be an overloaded vessel. A case for the detainable deficiency should consider loading/unloading, bunkering, season, zone, route/previous port, and additional documentation to determine the extent of the alleged violation.
		1. *A submerged load line should be documented and immediately reported to the senior investigating officer. (PSC course notes)*
	2. ICLL Part 1, Article 21:
		1. Ships holding a certificate issued under [**Article 16**](http://www.regs4ships.com/docs/international/imo/conv/load_lines/pt1/articles/article_016.cfm) or [**Article 17**](http://www.regs4ships.com/docs/international/imo/conv/load_lines/pt1/articles/article_017.cfm) are subject, when in the ports of other Contracting Governments, to control by officers duly authorized by such Governments. Contracting Governments shall ensure that such control is exercised as far as is reasonable and practicable with a view to verifying that there is on board a valid certificate under the present Convention. If there is a valid International Load Line Certificate (1966) on board the ship, such control shall be limited to the purpose of determining that:
			1. the ship is not loaded beyond the limits allowed by the certificate;
			2. the position of the load line of the ship corresponds with the certificate; and
			3. (c) the ship has not been so materially altered in respect of the matters set out in sub-paragraphs (a) and (b) of paragraph (3) of [**Article 19**](http://www.regs4ships.com/docs/international/imo/conv/load_lines/pt1/articles/article_019.cfm) that the ship is manifestly unfit to proceed to sea without danger to human life. If there is a valid International Load Line Exemption Certificate on board, such control shall be limited to the purpose of determining that any conditions stipulated in that certificate are complied with.
	3. ICLL Part 1, Article 12 contains additional regulation on **departing** ships with submerged load line:
		1. (3) When a ship departs from a port situated on a river or inland waters, deeper loading shall be permitted corresponding to the weight of fuel and all other materials required for consumption between the point of departure and the sea.
4. **What regulation requires the MARSEC level to be posted?**
* Does vessel have a valid ISSC? If so, CFR states that ISSC deems vessel to be in compliance with all regs within the sub section. The same subsection states that all MARSEC levels require posting of signs that describe current security measures. This interpretation would suffice for a vessel with no ISSC.
	1. *33 CFR §104.105(c)*[*Foreign Vessels*](https://www.law.cornell.edu/definitions/index.php?width=840&height=800&iframe=true&def_id=b95a4c2f25419414a822eb9777fd68ef&term_occur=999&term_src=Title:33:Chapter:I:Subchapter:H:Part:104:Subpart:A:104.105)*that have on board a valid International*[*Ship*](https://www.law.cornell.edu/definitions/index.php?width=840&height=800&iframe=true&def_id=e3fa6fe931d73033d3a95c06cc4ca9f4&term_occur=999&term_src=Title:33:Chapter:I:Subchapter:H:Part:104:Subpart:A:104.105)*Security Certificate that certifies that the verifications required by part A,*[*Section 19.1*](https://www.law.cornell.edu/cfr/text/33/19.1)*, of the International*[*Ship*](https://www.law.cornell.edu/definitions/index.php?width=840&height=800&iframe=true&def_id=e3fa6fe931d73033d3a95c06cc4ca9f4&term_occur=999&term_src=Title:33:Chapter:I:Subchapter:H:Part:104:Subpart:A:104.105)*and*[*Port*](https://www.law.cornell.edu/definitions/index.php?width=840&height=800&iframe=true&def_id=e15505f2bca88f321aa68b1ab3db5faf&term_occur=999&term_src=Title:33:Chapter:I:Subchapter:H:Part:104:Subpart:A:104.105)[*Facility*](https://www.law.cornell.edu/definitions/index.php?width=840&height=800&iframe=true&def_id=c54a11716ad6998d70a246b1da967ff6&term_occur=999&term_src=Title:33:Chapter:I:Subchapter:H:Part:104:Subpart:A:104.105)*Security (ISPS) Code (Incorporated by reference, see*[*§ 101.115*](https://www.law.cornell.edu/cfr/text/33/101.115)*of this subchapter) have been completed will be deemed in compliance with this part, except for §§ 104.240, 104.255, 104.292, and 104.295, as appropriate. This includes ensuring that the vessel meets the applicable requirements of*[*SOLAS*](https://www.law.cornell.edu/definitions/index.php?width=840&height=800&iframe=true&def_id=ea915bbeab83aab1eb2e56f7a93a45e8&term_occur=999&term_src=Title:33:Chapter:I:Subchapter:H:Part:104:Subpart:A:104.105)*Chapter XI-2 (Incorporated by reference, see*[*§ 101.115*](https://www.law.cornell.edu/cfr/text/33/101.115)*of this subchapter) and the*[*ISPS Code*](https://www.law.cornell.edu/definitions/index.php?width=840&height=800&iframe=true&def_id=8a3df2404e1ca9be28d174292952f8bd&term_occur=999&term_src=Title:33:Chapter:I:Subchapter:H:Part:104:Subpart:A:104.105)*, part A, having taken into account the relevant provisions of the*[*ISPS Code*](https://www.law.cornell.edu/definitions/index.php?width=840&height=800&iframe=true&def_id=8a3df2404e1ca9be28d174292952f8bd&term_occur=999&term_src=Title:33:Chapter:I:Subchapter:H:Part:104:Subpart:A:104.105)*, part B, and that the vessel is provided with an approved security plan.*
	2. *§104.265(d)(3) (3) Conspicuously post signs that describe security measures currently in effect and clearly state that:*
		1. *(i) Boarding the*[*vessel*](https://www.law.cornell.edu/definitions/index.php?width=840&height=800&iframe=true&def_id=b5933f9b170d02d79488e1ec021e57f1&term_occur=999&term_src=Title:33:Chapter:I:Subchapter:H:Part:104:Subpart:B:104.265)*is deemed valid consent to*[*screening*](https://www.law.cornell.edu/definitions/index.php?width=840&height=800&iframe=true&def_id=974c49ffc2dd570952ba96f8af05450a&term_occur=999&term_src=Title:33:Chapter:I:Subchapter:H:Part:104:Subpart:B:104.265)*or inspection; and*
		2. *(ii) Failure to consent or submit to*[*screening*](https://www.law.cornell.edu/definitions/index.php?width=840&height=800&iframe=true&def_id=974c49ffc2dd570952ba96f8af05450a&term_occur=999&term_src=Title:33:Chapter:I:Subchapter:H:Part:104:Subpart:B:104.265)*or inspection will result in denial or revocation of authorization to board;*
* Nearly every vessel we examine will have an ISSC, so we have to check elsewhere. SOLAS kicks straight to ISPS. ISPS Code emphasizes Ship’s Security Plan, with no mention of signs being posted as a requirement.
1. **What is the timeframe for a vessel to submit info to NBIC?**
	1. 6 hours *after* arrival at the latest
	2. 33CFR §151.2060
		1. Submit the ballast water report no later than 6 hours after arrival at the [port or place of destination](https://www.law.cornell.edu/definitions/index.php?width=840&height=800&iframe=true&def_id=fb4680263aaadd4e66dc5782b4cd974a&term_occur=999&term_src=Title:33:Chapter:I:Subchapter:O:Part:151:Subpart:D:151.2060), or prior to departure from that  [port or place of destination](https://www.law.cornell.edu/definitions/index.php?width=840&height=800&iframe=true&def_id=fb4680263aaadd4e66dc5782b4cd974a&term_occur=999&term_src=Title:33:Chapter:I:Subchapter:O:Part:151:Subpart:D:151.2060), whichever is earlier.
2. **What are the distance from shore requirements/restrictions for BW?**
	1. Territorial seas / 12nm from US baseline constitutes waters of the US.
		1. 33 CFR 151.2025(a)(4) - BWMS
		2. 33 CFR § 2.38 – US jurisdiction
		3. 33 CFR 151.1504 – US navigable waters
3. **When would a Flag State endorsement not be present for mariner credentials, would a national endorsement suffice?**
	1. If flag state and crew nationality are the same.
4. **What are the regulations for extensions/time permitted for expired crew credentials? What should be provided in this case?**
	1. As per STCW I/2.8: (the endorsements) shall expire as soon as the certificate endorsed expires or is withdrawn, suspended or cancelled by the Party which issued it and, in any case, not more than five years after their date of issue.
		1. *Note: medical certificates that expire in the course of a voyage remain in force until the next port of call… provided that the period shall not exceed three months.*
* There’s a grace period to get a new endorsement – what is it?  Also, what would you want to see from the vessel if the C/O was on a grace period?
	+ 3 months (STCW I/10-5)
	+ Appropriate Certificate of Competency for Master position.
1. **Crew credentials appear to be falsified; or at least appear much different/less authentic than other from same source/country. How do you handle this?**
* In the event a fraudulent document is discovered, the mariner in question can immediately be considered not qualified to hold that particular position and will need to be replaced. The mariner’s own administration has the responsibility to investigate the matter under Regulation I/5.
	+ Three primary reasons why mariners obtain fraudulent documents:
		- To qualify (at least on paper) for a position for which they are not qualified (i.e. merely to just get a job).
		- With the threat of terrorism, possibly to gain access to a vessel in order to conduct a terrorist/criminal act.
		- Because visas can be issued on credentials, this would allow them access to a country illegally.
1. **Security drill frequency?**
	1. SOLAS XI-2 kicks to ISPS. MSC.1/Circ.1525 also reiterates ISPS Code.
	2. ISPS Code, Part A/13.4 To ensure the effective implementation of the ship security plan, drills shall be carried out at appropriate intervals taking into account the ship type, ship personnel changes, port facilities to be visited and other relevant circumstances, taking into account the guidance given in part B of this Code.
	3. ISPS Code, Part B/13.6 To ensure the effective implementation of the provisions of the ship security plan, drills should be conducted at least once every three months. In addition, in cases where more than 25 percent of the ship personnel has been changed, at any one time, with personnel that has not previously participated in any drill on that ship, within the last 3 months, a drill should be conducted within one week of the change. These drills should test individual elements of the plan such as those security threats listed in paragraph 8.9.
	4. ISPS Code, Part B/13.7 Various types of exercises which may include participation of company security officers, port facility security officers, relevant authorities of Contracting Governments as well as ship security officers, if available, should be carried out at least once each calendar year with no more than 18 months between the exercises. These exercises should test communications, coordination, resource availability, and response.
* SO how often do they need to conduct drills and exercises?
	+ 33CFR 104.230
		- At least every 3 months, exercises every calendar year NTE 18 months.
1. **Describe NFU-1, NFU-2, FU-1, and FU-2**
	1. NFU: Non-Follow Up
		1. Hand mode, tiller moves along with control. Steering gear stops when control is released or stops are met. Similar to operating with a DCV.
	2. FU: Follow Up
		1. More user friendly, requires a steering control unit. This is the typical “helm” or “wheel” mode, and allows a rudder angle to be chosen with wheel input that the steering gear “follows up” to achieve the desired angle.
	3. Systems: 1 vs 2
		1. The steering systems, essentially everything forward of the pump itself. Consider the total combinations of testing to consist of:
			1. Pump 1
			2. Pump 2
			3. Steering System 1
			4. Steering System 2
			5. Follow up Mode
			6. Non-Follow Up Mode
2. **Emergency fire pump remote start required on bridge?**
	1. No regulation requiring, but may be operated from local control, nav bridge, fire station. Most of guidance printed in SOLAS is taken directly from FSS Code, which also does not require bridge starting.
	2. *Note: For guidance for* ***non****-emergency fire pumps / PUMS and passenger vessels see SOLAS (14) II-2/10.2.1.2*
3. **How long must lifebuoy lines be?**
	1. SOLAS (14) III/7.1.2 At least one lifebuoy on each side of the ship shall be fitted with a buoyant lifeline complying with the requirements of paragraph 2.1.4 of the Code equal in length to not less than twice the height at which it is stowed above the waterline in the lightest seagoing condition, or 30 m, whichever is the greater.
4. **What doors are required to be self-closing? Cargo ship requirements? Additional scenarios?**
	1. SOLAS II-2/92.2.5.1 Stairways shall be within enclosures formed of "A" class divisions, with positive means of closure at all openings, except that:
		1. .1 a stairway connecting only two decks need not be enclosed, provided the integrity of the deck is maintained by proper bulkheads or self-closing doors in one 'tween-deck space. When a stairway is closed in one 'tween-deck space, the stairway enclosure shall be protected in accordance with the tables for decks in paragraphs 2.2.3 or 2.2.4;
	2. SOLAS II-2/9.4.1.1.5 Fire doors in main vertical zone bulkheads, galley boundaries and stairway enclosures other than power-operated watertight doors and those which are normally locked shall satisfy the following requirements:
		1. .1 the doors shall be self-closing and be capable of closing with an angle of inclination of up to 3.5° opposing closure;
	3. SOLAS II-2/9.4.1.2.2 Cabin doors in "B" class divisions shall be of a self-closing type. Hold-back hooks are not permitted.
	4. SOLAS II-2/9.4.2.1 Doors fitted in boundary bulkheads of machinery spaces of category A shall be reasonably gastight and self-closing
	5. SOLAS II-2/9.5.2.5 In passenger ships, doors, other than power-operated watertight doors, shall be so arranged that positive closure is assured in case of fire in the space by power-operated closing arrangements or by the provision of self-closing doors capable of closing against an inclination of 3.5° opposing closure, and having a fail-safe hold-back arrangement, provided with a remotely operated release device. Doors for emergency escape trunks need not be fitted with a fail-safe hold-back facility and a remotely operated release device.
5. **When is an onboard hospital required?**
	1. ILO 147 Article 14
		1. Any ship carrying a crew of fifteen or more and engaged in a voyage of more than three days’ duration, a separate hospital accommodation shall be provided. Competent authority may relax this requirement for vessels engaged in coastal trade.
6. **What manual pertains to onboard first aid/treatment SOLAS regs?**
	1. Medical First Aid Guide
		1. *Note: Direct correlation to IMDG code; look up substance and MFAG will detail signs, symptoms, treatment etc.*
7. **Can starting agent/assistance be used for starting lifeboat engines?**
	1. Yes, as per LSA Code 4.4.6.2 “*any necessary starting aids shall be provided… shall start engine at -15ºc within 2 min of commencing start procedure…”*
8. **How many kJ per food ration per person is required for a lifeboat? Is this based on max capacity of lifeboat, or crew onboard vessel?**
	1. LSA 4.1.5.1.18: 10,000kJ for each person the liferaft is permitted to accommodate
9. **Tank / chem lifeboats; air and sprinkler requirements.**
	1. SOLAS (14) III/31
		1. 1.6 Chemical tankers and gas carriers carrying cargoes emitting toxic vapours or gases\* shall carry, in lieu of totally enclosed lifeboats complying with the requirements of section 4.6 of the Code, lifeboats with a self-contained air support system complying with the requirements of section 4.8 of the Code.
		2. 1.7 Oil tankers, chemical tankers and gas carriers carrying cargoes having a flashpoint not exceeding 60°C (closed-cup test) shall carry, in lieu of totally enclosed lifeboats complying with the requirements of section 4.6 of the Code, fire-protected lifeboats complying with the requirements of section 4.9 of the Code.
	2. LSA Chapter IV
		1. 4.8 Lifeboats with self-contained air support system: In addition to complying with the requirements of section 4.6 or 4.7, as applicable, a lifeboat with a self- contained air support system shall be so arranged that, when proceeding with all entrances and openings closed, the air in the lifeboat remains safe and breathable and the engine runs normally for a period of not less than 10 min. During this period the atmospheric pressure inside the lifeboat shall never fall below the outside atmospheric pressure nor shall it exceed it by more than 20 hPa. The system shall have visual indicators to indicate the pressure of the air supply at all times.
		2. 4.9 Fire protected lifeboats: .1 In addition to complying with the requirements of section 4.8, a fire-protected lifeboat when waterborne shall be capable of protecting the number of persons it is permitted to accommodate when subjected to a continuous oil fire that envelops the lifeboat for a period of not less than 8 min.
			* 4.9.2 Water spray system
			A lifeboat which has a water spray fire-protection system shall comply with the following:
				+ .1  water for the system shall be drawn from the sea by a self-priming motor pump. It shall be possible to turn "on" and turn "off" the flow of water over the exterior of the lifeboat;
				+ .2  the seawater intake shall be so arranged as to prevent the intake of flammable liquids from the sea surface; and
				+ .3  the system shall be arranged for flushing with fresh water and allowing complete drainage.
10. **When is a davit launched liferaft required?**
	1. When a free fall lifeboat is used
		1. SOLAS (14) III/31
			1. 1.1 Cargo ships shall carry:
				1. .1 one or more totally enclosed lifeboats complying with the requirements of section 4.6 of the Code of such aggregate capacity on each side of the ship as will accommodate the total number of persons on board; and
				2. .2 in addition, one or more inflatable or rigid liferafts, complying with the requirements of section 4.2 or 4.3 of the Code, of a mass of less than 185 kg and stowed in a position providing for easy side-to-side transfer at a single open deck level, and of such aggregate capacity as will accommodate the total number of persons on board. If the liferaft or liferafts are not of a mass of less than 185 kg and stowed in a position providing for easy side-to-side transfer at a single open deck level, the total capacity available on each side shall be sufficient to accommodate the total number of persons on board.
			2. 1.2 In lieu of meeting the requirements of paragraph 1.1, cargo ships may carry:
				1. .1 one or more free-fall lifeboats, complying with the requirements of section 4.7 of the Code, capable of being free-fall launched over the stern of the ship of such aggregate capacity as will accommodate the total number of persons on board; and
				2. .2 in addition, one or more inflatable or rigid liferafts complying with the requirements of section 4.2 or 4.3 of the Code, on each side of the ship, of such aggregate capacity as will accommodate the total number of persons on board. The liferafts on at least one side of the ship shall be served by launching appliances.
11. **What is the max weight for a manually launched liferaft?**
	1. 185kg / 407lbs as per SOLAS (14) III/31
12. **What is the max quantity/capacity for a paint locker? What document would supplement?**
	1. Max capacity per the firefighting capabilities of space; height / storage vs effectiveness of fixed firefighting system.
		1. Refer to FC, then;
		2. Refer to fixed FFS manufacturer instructions
13. **What form would be required if levels of radiation above limits were detected?**
	1. CG-16616 Level I Radiation Detection Boarding/Inspection Sheet
14. **Time allotted to close OWS overboard discharge?**
	1. MEPC 107(49)/4.2.6 states the time elapsed from introduction of 15ppm sample to bilge alarm display should not exceed 5 seconds
	2. §6.2.1 states that the response time of the Automatic Stopping Device, upon signal from the bilge alarm that 15ppm has been reached, should be as short as possible but no longer than 20 seconds.
15. **Shaft generator requirements? Minimum generators required?**
	1. Perhaps a gen could be shaft driven, but arrangements would have to meet below regs; (CPP, fixed prop, propulsion systems etc present different issues here)
	2. SOLAS (14) II-1/4
		1. 1.1 main source of electrical power shall consist of at least two generating sets
		2. 1.3 … can be maintained regardless of speed and direction of rotation of the propulsion machinery or shafting.
16. **What if a fire detection alarm in the engine room is never acknowledged?**
	1. SOLAS (14) II-2/7.4 Protection of machinery spaces:
		1. .2 The detection system shall initiate audible and visual alarms distinct in both respects from the alarms of any other system not indicating fire, in sufficient places to ensure that the alarms are heard and observed on the navigation bridge and by a responsible engineer officer. When the navigation bridge is unmanned, the alarm shall sound in a place where a responsible member of the crew is on duty.
17. **When are radios required for FF drills?**
	1. Always, as per SOLAS (14) II-2/10.10
		1. 10.4 Fire-fighter's communication
			1. For ships constructed on or after 1 July 2014, a minimum of two two-way portable radiotelephone apparatus for each fire party for fire-fighter's communication shall be carried on board. Those two-way portable radiotelephone apparatus shall be of an explosion-proof type or intrinsically safe. Ships constructed before 1 July 2014 shall comply with the requirements of this paragraph not later than the first survey after 1 July 2018.
18. **A firefighting ensemble lanyard is unclipped during a drill. What are the requirements and potential actions required?**
	1. It’s required to be capable, but perhaps not necessary to be clipped in all instances; as per FSS Code Chapter 3/2.1.3: Lifeline
		1. For each breathing apparatus a fireproof lifeline of at least 30 m in length shall be provided. The lifeline shall successfully pass an approval test by statically load of 3.5 kN for 5 min without failure. The lifeline shall be capable of being attached by means of a snap-hook to the harness of the apparatus or to a separate belt in order to prevent the breathing apparatus becoming detached when the lifeline is operated
19. **Time limit to don PFD / immersion suits during drill?**
	1. SOLAS states that drills should be conducted as if there were an actual emergency, but does not require a time. LSA Code tech specs of lifesaving equipment testing state “75% of persons who are completely unfamiliar with (said) lifejacket can correctly don it within one minute… after demonstration, all persons can correctly don it within a period of one minute”