# ATTACHMENT I

Life Saving Appliances for yachts engaged in international voyages	Yachts less than 24m Length	Yachts 24m an Lengti	'n	Yachts more than 500 GT			
Liferaft (See note 1)	Full ca	pacity of number	of persons o				
Lifeboats (See note 2)		-			mtr or more		
<b>Rescue Boat</b> (See note 3)		-			es		
Tiel (C. )	Below 50m / from 50m to 80 m						
Lifebuoys (See note 4)	2 4	6	10	11	13		
- with self-igniting lights	1 2	3	4	5	7		
- with smoke & light	1 2	- 2	2	2	2		
- with buoyant line	1 2	3	4	4	4		
Lifejackets with lights	100% of total persons			120% of total persons			
Children lifejackets with lights	For ea	ach child		A least 4 or such greater number as may be required to provide a lifejacket for each child			
Safety Harness		-		Y	es		
Pyrotechnics:		6		26			
- Parachute signals		2		12			
- Red hand flares		2		12			
- Buoyant smoke signals	2			2			
Line throwing appliance	1				2		
General Positioning Satellite (GPS)	Yes						
NAVTEX		Yes					
EPIRB (See note 5)		1					
SART (See note 5)		1			2		
General Alarm	-		Yes	es			
<b>Emergency Lighting</b>		Yes					
Thermal Protective Aids Yacht operating during summer only / temperature does not fall below 20°C.	2	2		100% of to	otal persons		
Immersion Suits For Yacht having an unrestricted range	2	2 2		100% of to	otal persons		
Training manual		Yes		ı			
Instructions for onboard							
Maintenance	Yes						
SOLAS Life Saving Signals and Rescue Poster	Yes						
Posters/Manual and signs describing Survival craft and equipment Operating instructions	Yes						

#### Note 1

Approved type of Liferafts is to be carried. They must contain emergency packs. Their stowage on board is to be such that they may be launched easily. Liferafts are to be fitted with hydrostatic release device so they would be able to float free.

#### Note 2

In case Lifeboats are fitted, their launching devices are to be of the approved type.

### Note 3

Yacht below 500 GT can either be equipped with a SOLAS approved rescue boat or a boat which is suitable for rescue purposes. The boat may be a rigid hull, RIB or inflatable and should have a capacity of not less than 4 persons one of which will be assumed to be lying down. Tubes of float free or inflatables and RIB's should have at least three compartments. Short range yachts should have sufficient mobility and maneuverability in a sea way to enable persons to be retrieved from the water. The retrieval of persons over the stern is not considered acceptable. The recovery position should be visible from the control station. Vessels should be provided with the necessary equipment and arrangements to enable the person/s to be recovered without further persons entering the water. All yacht above 500 GT should be equipped with a rescue boat meeting SOLAS requirements.

### Note 4

In the case of short range yachts, each lifebuoy shall be marked with the vessel's name and port of registry. Buoyant lines should have a minimum length of 30 metres.

#### Note 5

All EPIRB's and SART's are to be installed in an easily accessible position so that they can be either float free or manually released and placed in the survival craft. All EPIRB's should be registered with the agency.

Yachts less than 24 metres in length	Yachts 24 metres and more in length		
One hand powered or powered fire pump located outside engine space with sea suction and hose connection, capable of delivering a jet to any part of the vessel.	One powered fire pump. This can be engine driven or independently powered and be capable of delivering a jet to any part of the yacht		
One fire hydrant.	Adequate number of hydrants but not less than 2 however, all spaces must be easily accessible		
One fire hose of adequate length with a 10mm nozzle	Three fire hoses of adequate length with a 10mm		
and a spray nozzle.	nozzle and a spray nozzle		
Fixed fire extinguishing medium in the engine space. T	This may be automatically or manually discharged (note		
8			
Adequate quantity of fire extinguisher of the	Adequate fire extinguishers of the approved type.		
approved type. The quantities and types required will	Accommodation:		
be on a vessel by vessel basis but should not be less	- minimum of 4 fire extinguishers		
than five.	Bridge:		

	- 1 CO2 and 1 powder			
	Engine Room:			
	- 2 portable extinguishers			
	For oil fires:			
- 1 x 20 lt foam extinguisher - 1 x 16kg CO2 extinguisher				
				Emergency fire pump.
This may be a hand operated pump which may gi				
	throw of 6 mtr through a 10mm nozzle or a power			
	driven pump which is also connected to the main fire			
	line. The emergency fire pump is to be located outside			
the engine space.				
2 fire buckets with lanyards				
1 fire blanket in galley				

#### Note:

- 1. The location of any concealed fire (or safety) appliances is to be clearly marked.
- 2. The capacity of the power driven fire pumps (including engine driven pumps) should have a capacity of 2.5 x  $\{1 + 0.066 \text{ x } (L(B+D)) \text{ 0.5 } \} \text{ 2m3 / hr.}$

Where: L is the length of the vessel

- B is the moulded breadth
- D is the moulded depth at mid length
- 3. The second (emergency) fire pump (which may be a portable pump) is to have a capacity of at least 80% of the main fire pump. Such a pump is to take suction from a location outside the engine space. This pump is to have a separate source of power.
- 4. Fire mains are to be dedicated solely for the purpose and are to be made of steel (adequately protected against corrosion). Fire mains located on deck are to be provided with drain points to avoid freezing. The size of the fire main is to be designed to suit the size of the fire pumps.
- 5. Fire hydrants should be located in easily accessible locations and be fitted with valves and couplings to allow the quick attachment of the fire hoses.
- 6. Fire hoses should have jet / spray nozzles. Only hoses made uniquely for this purpose should be used.
- 7. Both main and emergency fire pumps should be connected to the same fire main. An isolation valve should be installed in the fire main. This valve is to be operated from outside the engine room.
- 8. CO2 systems should comply with SOLAS Chapter II-2 Regulation 5, paras 1 and 2. Other systems should comply with SOLAS Chapter II 2 Regulation 5, para 1 and MSC / Circ.668.
- 9. Maintenance and servicing of fire systems should be done regularly as recommended by the Makers. A log of all maintenance and certificates is to be maintained on board.

The yacht is to be subdivided by structural and thermal boundaries. The bulkheads and ceilings forming the thermal boundaries are defined in accordance with the SOLAS convention as summarized hereunder. Doors, windows and penetrations situated in classified boundaries are to be certified in accordance with Sections 2.3, 2.6 and the appendix of IMO Resolution A.754 (18) as applicable.

- 1. «A» Class divisions are those divisions formed by bulkheads and decks which comply with the following criteria:
  - they are constructed of steel or other equivalent material;
  - they are suitably stiffened;
  - they are insulated with approved non-combustible materials such that the average temperature of the unexposed side will not rise more than 140 degrees C above the original temperature, nor will the temperature, at any one point, including any joint, rise more than 180 degrees C above the original temperature, within the time listed below:
    - Class "A-60" 60 min
    - Class "A-30" 30 min
    - Class "A-15" 15 min
    - Class "A-0" 0 min
  - they are constructed as to be capable of preventing the passage of smoke and flame to the end of the one-hour standard fire test; and
  - the Agency required a test of a prototype bulkhead or deck in accordance with the International Code for Application of Fire Test Procedures to ensure that it meets the above requirements for integrity and temperature rise.
- 2. "B" Class divisions are those divisions formed by bulkheads, decks, ceilings or linings which comply with the following criteria:
  - they are constructed of approved non-combustible materials and all materials used in the construction and erection of "B" class divisions are non-combustible, with the exception that combustible veneers may be permitted provided they meet the requirements set out in Chapter II-2 of the SOLAS Convention;
  - they have an insulation value such that the average temperature of the unexposed side will not rise more than 140 degrees C above the original temperature, nor will the temperature at any one point, including any joint, rise more than 225 degrees C above the original temperature, within the time listed below:
    - Class "B-15" 15 min
    - Class "B-0" 0 min
  - they are constructed as to be capable of preventing the passage of flame to the end of the first half hour of the standard fire test; and
  - Agency required a test of a prototype division in accordance with the Fire Test Procedures Code to ensure that it meets the above requirements for integrity and temperature rise.
- 3. "F" Class divisions are those divisions formed by bulkheads, decks, ceiling or linings which comply with the following:
  - they shall be so constructed as to be capable of preventing the passage of flame to the end of the first half hour of the standard fire test; and

- they shall have an insulation value such that the average temperature of the unexposed side will not rise more than 139 degrees C above the original temperature, nor will the temperature at any one point, including any joint, rise more than 225 degrees C above the original temperature, up to the end of the first one-half hour of the standard fire test.
- 4. "C" Class divisions are divisions constructed of approved non-combustible materials. They need meet neither requirements relative to the passage of smoke and flame nor limitations relative to the temperature rise. Combustible veneers are permitted provided they meet the requirements set out in Chapter II-2 of the SOLAS Convention.
- 5. The insulation and fire resistance is to be such that the temperature of the structural core does not rise above that at which the structure would start to lose its structural strength during the period of time of the rating of the insulation
- 6. Aluminium alloy structures situated in fire rated areas are required to be insulated in such a manner that the temperature at the structural core does not rise more than 200 degrees C above the ambient temperature at any time during the applicable fire exposure.
- 7. For composite structures the insulation is to be such that the laminate temperature is protected from rising above the minimum allowable heat deflection temperature under load of the resin at any time during the applicable fire exposure. Particular emphasis is made for high risk spaces in way of escape routes, muster areas and life saving appliance launching and embarkation stations. The fire class of bulkheads and walls will be determined for each case separately on the basis of functional equivalence. For qualification and acceptance by the Administration, fire class bulkheads are to be certified by means of tests in accordance with either IACS Class Society Rules, equivalent International Standards (i.e. ISO 75-2 Method A or equivalent) or National Standards, that the minimum heat deflection temperature under load is not exceeded at the end of the applicable fire test. Excessive toxic fumes are not to be released at any time and the necessary arrangements are required to prevent this.
- 8. Thermal insulation of boundaries shall take in consideration the fire risk to particular space and adjacent areas.
- 9. Fire integrity of the divisions should be maintained at all openings and penetrations
- 10. For structures in contact with sea-water, the required insulation should extend at least 300mm below the lightest waterline. In spaces where penetration of oil products or oil vapours is possible, the surface of the insulation is to be impervious to oil or oil vapours. Arrangements shall be such as to avoid immersion in any oil spillages.

**TABLE N 4** 

$\frac{\text{Loa} + \text{Lwl}}{2}$	Anchor Mas		Anchor Cable Diameter			
			Ma	in	Kedge	
	Main	Kedge	Chain	Rope	Chain	Rope
(metres)	(kg)	(kg)	(mm)	(mm)	(mm)	(mm)
6	8	4	6	12	6	10
7	9	4	8	12	6	10
8	10	5	8	12	6	10
9	11	5 5	8	12	6	10
10	13	6	8	12	6	10
11	15	7	8	12	6	10
12	18	9	8	14	8	12
13	21	10	10	14	8	12
14	24	12	10	14	8	12
15	27	13	10	-	8	12
16	30	15	10	-	8	12
17	34	17	10	-	8	14
18	38	19	10	-	8	14
19	42	21	12	-	10	14
20	47	23	12	-	10	14
21	52	26	12	-	10	14
22	57	28	12	-	10	16
23	62	31	12	-	10	16
24	68	34	12	-	10	16

### Note:

- 1. When a yacht has an unusually high windage, due to high freeboard, heavy rigging (e.g. square-rigger) or large superstructures, the mass of anchor given in Table 4 must be increased to take account of the increase in wind loading. by 75% but the diameter of the anchor cable need not be increased.
- 2. The diameter of the anchor cable must be appropriate to the increased mass of anchor.
- 3. The length of anchor cable attached to an anchor must be appropriate to the area of operation but generally should be not less than 4 x the yacht load line length overall or 30 metres, whichever is the longer, for each of the main and kedge anchors.
- 4. In a yacht  $\ge$ 15 metres in load line length, the anchor cable for the main anchor should be of chain.
- 5. In a yacht of <15 metres in load line length, the cable for main anchors and for kedge anchors may be of chain or rope.
- 6. When the anchor cable is of rope, there must be ≥10 metres of chain between the rope and the anchor. The rope diameter given in Table 4, is for nylon construction. When rope of another construction is proposed, the breaking load should be not less than that of the nylon rope specified in the table.

Equipment	A1	A2	A3 Inmarsat	A3 HF solution	A4
VHF with DSC	X	X	X	X	X
DSC watch receiver channel 70	X	X	X	X	Х
MF telephony with MF DSC		X	X		
DSC watch receiver MF 2187,5 kHz		X	X		
Inmarsat ship earth station with EGC receiver			Х		
MF/HF telephony with DSC and NBDP				X	X
DSC watch receiver MF/HF				Х	X
Duplicated VHF with DSC			X	Х	X
Duplicated Inmarsat SES			X	Х	
Duplicated MF/HF telephony with DSC and NBDP					X
NAVTEX receiver 518 kHz	X	X	X	Х	X
EGC receiver	x <sup>1)</sup>	x <sup>1)</sup>		X	X
Float-free satellite EPIRB	X	X	X	X	x <sup>4)</sup>
Radar transponder (SART)	x <sup>2)</sup>	x <sup>2)</sup>	x <sup>2)</sup>	x <sup>2)</sup>	x <sup>2)</sup>
Hand held GMDSS VHF transceivers	x <sup>3)</sup>	x <sup>3)</sup>	x <sup>3)</sup>	x <sup>3)</sup>	x <sup>3)</sup>

- 1. Outside NAVTEX coverage area.
- 2. For Yacht less than 500 GT- 1 set. Yacht 500 GT and more -2 sets.
- 3. For Yacht less than 500 GT- 2 sets. Yacht 500 GT and more -3 sets.
- 4. Inmarsat E-EPIRB cannot be utilized in sea area A4.

FIRST AID KIT	QTY REQUIRED
The kit shall be kept in a damp proof strong canvas bag, satchel or a box with a	1
carrying strap and shall, at least, contain the following:	1
Triangular bandage with sides of about 90 cm. and base of about 127 cm.	4
Standard dressings No.8 or 13 BPC	6
Standard dressings No.9 or 14 BPC	2
Extra large sterile unmedicated dressings 28cm x 17.7cm	2
Medium size safety pins, rustless	6
Assorted adhesive dressing strips medicated BPC	6
Sterile pads with attachments	19
Sterile pads with attachments	2
Packages each containing 15g sterile cotton wool	2
Pair of large disposable polythene gloves	5
PARACETAMOL - 500mg tablet	50
SEASICKNESS REMEDY tablets (Hyoscine hydrobromide 0.3mg recommended)	50
BUTTERFLY CLOSURES / adhesive skin closure, length 5 cm. individually sealed	19
sterile in container	19
FORECEPS / epilation with oblique ends 12,5 cm. of stainless steel throughout	1
SCISSORS (approved medical type) / About 18cm, one blade sharp pointed and the	1
other round-ended	1
THERMOMETER / Ordinary range clinical thermometer, stubby bulb pattern	1
FIRST AID MANUAL / Published by an approved Body or Authority)	1

N	Product		Quantity
1	Aspirin 325 mg Tablets-100 tablets per	100	2
2	Alcohol 70% Rubbing Isopropyl-16 oz	16 oz	1
3	Aluminum Acetic Acid 2% Otic Solution (Domeboro) 60 ml units	60 ml	3
4	Alumina and Magnesia Tablets (Maalox)-100 tablets per	100	
5	Calamine Lotion-4 oz	4 oz	1
6	Hibiclens Solution (Chlorhexidine Gluconate)-16 oz	16 oz	1
7	Charcoal, Activated Powder-227g	227g	1
8	Chloroquine 250 mg Tablets-100 tablets per	100	1
9	Chlorpromazine 25 mg Tablets (Thorazine)-Each	Each	20
10	Clove Oil-1 oz	1 oz	1
11	Meclizine 25 mg Tablets (Antivert)-100 tablets per	100	1
12	Dimercaprol 100 mg/ml Injection-2 ml units	2 ml	1
13	Epinephrine 1 mg/ml Injection-1 ml units	1 ml	10
14	Triple Antibiotic Ophth Solution-10 ml units	10 ml	1
15	Triple Antibiotic Ophth Ointment (Neosporin)-3.5 gm	3,5 g	1
16	Eye Wash Sterile-4 oz	4 oz	1
17	Nitro-Quick 0.4 mg Sublingual Tablets-25 tablets per	25	1
18	Hydrocortisone 1% Ointment-1 oz	1 oz	2
19	Ichthammol 10% Ointment-1 oz	1 oz	1
20	Insect Repellent Pump-2 oz	2 oz	2
21	Iodine Tincture 2% Mild-1 oz	1 oz	2
22	Milk Of Magnesia-12 oz	12 oz	2
23	Triple Antibiotic Ointment (Neosporin)-1 oz	1 oz	5
24	Electrolyte Tablets-100 tablets per	100	1
25	Acetaminophen 500 mg Tablets (Tylenol)-100 tablets per	100	1
26	Petrolatum Ointment-1 oz	1 oz	4
27	Proguanil 100 mg (Pauludrine)-100	100	1
28	Thermotabs (Enteric Coated Salt Tablets)-100 tablets per	100	10
29	Baby Powder J & J (Talc)-4 oz	4 oz	3
30	Antibiotic Otic Solution (Generic Cortisporin)-10 ml units	10 ml	1
31	Zinc Oxide Ointment-1 oz	1 oz	3
32	Eye Cup Glass-Each	Each	1
33	Funnel Stainless Steel-6 oz	6 oz	1
34	Cylinder Glass Double Scale-50 ml	50 ml	1
35	Cylinder Glass Double Scale-500 ml	500 ml	1
36	Stokes Litter Basket-Each	Each	1
37	Resuscitator Bag Adult Disp. W/Mask & Tubing-Each	Each	1
38	Sphygmomanometer Aneroid #115-Each	Each	1
39	Splint Inflatable Kit-4 per kit	Each	1
40	Finger Splint Padded Assorted Sizes-3-Each	Each	1
41	Stethoscope Black-22"	22"	1

42	International Medical Guide For Ships-Each	Each	1
43	International Medical Guide For Ships-Each	Each	1
44	Medical First Aid/Dangerous Goods-Each	Each	1
45	Airway Kit Nasopharyngeal -5 Sizes w/Case	5 Sizes w/Case	1
46	Forceps Dressing Bayonet-Shaped 7"-Each	Each	1
47	Forceps Splinter-3-1/2"	3-1/2"	1
48	Forceps Tissue 1x2 teeth-4-1/2"	4-1/2"	1
49	Scissors Bandage-7-1/2"	7-1/2"	1
50	Scissors Operating Straight Sharp/Sharp-5-1/2"	5-1/2"	1
51	Tape Micropore Paper 2" x 10 yd -Each	Each	1
52	Tape Micropore Paper 1" x 10 yd -Each	Each	1
53	Cotton Tipped Applicators 6"-100 per box	100	1
54	Elastic Bandage 3" x 4.5 yd -Each	Each	6
55	Elastic Bandage 2" x 4.5 yd -Each	Each	6
56	Elastic Bandage Cotton 2"-Each	Each	12
57	Flexilite Conforming Gauze Bandage 2"x4-1/2'-Each	Each	100
58	Flexilite Conforming Gauze Bandage 6"x4-1/2'-Each	Each	10
59	Flexilite Conforming Gauze Bandage 4"x4-1/2'-Each	Each	30
60	Gauze Telfa "Ouchless" Adhesive Pads 3"x4" Sterile-100 per	100	10
61	Band Aid Adhesive Surgical Dressing 8"x6"-Each	Each	5
62	Triangular Bandage-Each	Each	1
63	Surgitube #2 7/8" x 5 yd –Each	Each	2
64	Bandage Spray-3 oz	3 oz	1
65	Vaseline Dressing 3"x18"-Each	Each	1
66	Vaseline Dressing 3"x9"-Each	Each	2
67	Vaseline Dressing 6" x 36"-Each	Each	1
68	Bandage Compress 4" (1 Per Box)-Each	Each	5
69	Bandage Compress 2" (4 Per Box)-Each	Each	2
70	Bandage Compress 3" (2 Per Box)-Each	Each	5
71	Medical Report For Seafarers-Each	Each	50
72	Cotton Rolled Sterile-2 oz	2 oz	1
73	Cotton Rolled Sterile-1/2 oz	1/2 oz	5
74	Cotton Rolled Sterile-4 oz	4 oz	5
75	Finger Cots Assorted Sizes Sm., Med., & Large-12	12	1
76	Penlight Heavy Duty W/batteries-Each	Each	1
77	Surgitube #1 5/8" x 5 yd – Each	Each	1
78	Medicine Cups Plastic 1 oz-100	100	1
79	Surgipad Combine Dressing 8"x10" Sterile-Each	Each	3
80	Eye Pad Large Sterile-12 per	12	1
81	Gauze Pads Non-Adherent 3"x4" Sterile	Each	20
82	Safety Pins Assorted Sizes-50 per	50	1
83	Brush (Surgeons Scrub)-Each	Each	1
84	Condoms Lubricated-Each	Each	30
85	Sheet waterproof 36x72"-Each	Each	1
86	Butterfly Closure Medium-100-Each	Each	1
87	Syringe & Needle 3 cc 21g x 1-1/2"-Each	Each	10

88	Syringe & Needle 5 cc 21g x 1-1/2"-Each	Each	10
89	Syringe & Needle 3 cc 25g x 5/8"-Each	Each	10
90	Kleenex-250 sheets per box	250 per	1
		box	
91	Thermometer Dual Scale Oral-Each	Each	2
92	Tourniquet Grafkette Adult Size-Each	Each	1
93	Tongue Depressors Wood 6" Senior-Each	Each	20
94	"Sharps" Disposal Box-Each	Each	1