TRACTATENBLAD

VAN HET

KONINKRIJK DER NEDERLANDEN

JAARGANG 1992 Nr. 173

A. TITEL

Internationaal Verdrag voor de beveiliging van mensenlevens op zee, 1974, met Bijlage;
Londen, 1 november 1974

B. TEKST

De Engelse en de Franse tekst van Verdrag en Bijlage zijn geplaatst in *Trb.* 1976, 157.

Voor correcties van de Bijlage zie *Trb.* 1985, 155.

Voor wijzigingen van de Bijlage zie *Trb.* 1983, 32 en rubriek J van *Trb.* 1983, 173, van *Trb.* 1985, 155, van *Trb.* 1989, 42, van *Trb.* 1989, 98 en van *Trb.* 1992, 24.

C. VERTALING

Zie *Trb.* 1977, 77, *Trb.* 1983, 32 en rubriek J van *Trb.* 1983, 173, de rubrieken C en J van *Trb.* 1985, 155 en de rubriek J van *Trb.* 1989, 42 en 98, van *Trb.* 1992, 24 en rubriek J hieronder.

D. PARLEMENT

Zie *Trb.* 1979, 128.

E. BEKRACHTIGING

Zie *Trb.* 1977, 77, *Trb.* 1979, 128, *Trb.* 1983, 32 en 173 en *Trb.* 1985, 155.

F. TOETREDING

Zie *Trb.* 1976, 157, *Trb.* 1977, 77, *Trb.* 1979, 128, *Trb.* 1983, 32 en 173, *Trb.* 1985, 155, *Trb.* 1989, 42 en 98 en *Trb.* 1992, 24.

Behalve de aldaar genoemde hebben nog de volgende Staten in overeenstemming met artikel IX, letter b. van het Verdrag een akte van toetreding bij de Secretaris-Generaal van de Internationale Maritieme Organisatie nedergelegd:

Luxemburg	14 februari 1991
Belize	2 april 1991
Letland	20 mei 1992
Cuba	19 juni 1992

G. INWERKINGTREDING

Zie *Trb.* 1979, 128.

H. TOEPASSELIJKVERKLARING

Zie *Trb.* 1983, 32, *Trb.* 1985, 155, *Trb.* 1989, 42 en *Trb.* 1992, 24.

J. GEGEVENS

Zie *Trb.* 1976, 157, *Trb.* 1977, 77, *Trb.* 1979, 128, *Trb.* 1983, 32 en 173, *Trb.* 1985, 85, *Trb.* 1986, 51, *Trb.* 1989, 42 en 98 en *Trb.* 1992, 24.

Verwijzingen

Voor het op 26 juni 1945 te San Francisco tot stand gekomen Handvest van de Verenigde Naties zie ook, laatstelijk, *Trb.* 1992, 101.

Wijzigingen

De wijzigingen van de Bijlage bij het Verdrag, vervat in resolutie MSC 13(57) d.d. 11 april 1989 (tekst en vertaling in *Trb.* 1992, 24) en vervat in resolutie MSC 19(58) d.d. 25 mei 1990 (tekst in *Trb.* 1992, 24 en vertaling hieronder) zijn bij brieven van 27 maart 1992 medegedeeld aan de Eerste en de Tweede Kamer der Staten-Generaal en aan de Staten van de Nederlandse Antillen en van Aruba.

De vertaling in het Nederlands van de wijzigingen vervat in resolutie MSC 19(58) d.d. 25 mei 1990 luidt als volgt:

Resolutie MSC 19(58)

(aangenomen op 25 mei 1990)

Aanneming van wijzigingen op het Internationaal Verdrag voor de beveiliging van mensenlevens op zee, 1974

De Maritieme Veiligheidscommissie,

Herinnerend aan artikel 28(b) van het Verdrag nopens de Internationale Maritieme Organisatie betreffende de taken van de Commissie, Voorts eraan herinnerend dat de Vergadering bij resolutie A.265(VIII) voorschriften heeft aangenomen inzake de waterdichte indeling en stabiliteit van passagiersschepen die kunnen worden gehanteerd als gelijkwaardig aan deel B „Waterdichte indeling en stabiliteit" van hoofdstuk II-1 van het SOLAS-Verdrag 1974,

Erkennend dat de veiligheid van schepen zal worden vergroot door in het Verdrag voorschriften op te nemen inzake de waterdichte indeling en stabiliteit in beschadigde toestand die van toepassing zijn op vrachtschepen,

Erop wijzend dat tijdens haar zevenenvijftigste zitting voorschriften inzake de waterdichte indeling en stabiliteit in beschadigde toestand voor schepen met droge lading, met inbegrip van ro-roschepen, gebaseerd op het concept van de vermoedelijke overlevingskans, werden goedgekeurd in de vorm van wijzigingen op het SOLAS-Verdrag en werden rondgezonden overeenkomstig artikel VIII(b)(i) van het Verdrag,

Overwogen hebbend de voorschriften inzake waterdichte indeling en stabiliteit in beschadigde toestand van schepen met droge lading, met inbegrip van ro-roschepen, opgesteld als een nieuw deel B-1 „Waterdichte indeling en stabiliteit van vrachtschepen in beschadigde toestand" van hoofdstuk II-1 van het Verdrag,

1. Neemt, in overeenstemming met artikel VIII(b)(iv) van het Verdrag, de wijzigingen op het Verdrag aan, waarvan de tekst is vervat in de Bijlage bij deze resolutie;

2. Bepaalt, in overeenstemming met artikel VIII(b)(vi)(2)(b) van het Verdrag, dat de wijzigingen worden geacht te zijn aangenomen op 31 juli 1991, tenzij vóór die datum meer dan een derde van de Verdragsluitende Regeringen die Partij zijn bij het Verdrag, of Verdragsluitende Regeringen waarvan de gezamenlijke koopvaardijvloten ten minste 50% van de bruto-tonnage van de wereldkoopvaardijvloot vormen, hun bezwaren tegen deze wijzigingen kenbaar hebben gemaakt;

3. Nodigt de Verdragsluitende Regeringen uit er nota van te nemen dat, in overeenstemming met artikel VIII(b)(vi)(2) van het Verdrag, de wijzigingen na hun aanvaarding in overeenstemming met paragraaf 2 hierboven, in werking treden op 1 februari 1992;

4. Dringt er bij de Verdragsluitende Regeringen op aan de voorschriften toe te passen in samenhang met de toelichtende opmerkingen van de Organisatie ten einde de eenvormige toepassing ervan te verzekeren;

5. Verzoekt de Secretaris-Generaal, in overeenstemming met artikel VIII(b)(v) van het Verdrag, voor eensluidend gewaarmerkte afschriften van deze resolutie en van de tekst van de in de Bijlage

vervatte wijzigingen te doen toekomen aan alle Verdragsluitende Regeringen die Partij zijn bij het Internationaal Verdrag voor de beveiliging van mensenlevens op zee, 1974;

6. Verzoekt de Secretaris-Generaal voorts afschriften van de resolutie te doen toekomen aan de Leden van de Organisatie waarvan de Regeringen geen Partij zijn bij het Verdrag.

BIJLAGE

Wijzigingen op het Internationaal Verdrag voor de beveiliging van mensenlevens op zee, 1974

HOOFDSTUK II-1

CONSTRUCTIE - WATERDICHTE INDELING EN STABILITEIT, MACHINE-INSTALLATIES EN ELEKTRISCHE INSTALLATIES

Voeg het onderstaande nieuwe deel B-l, dat de voorschriften 25-1 tot en met 25-10 omvat, in na het bestaande deel B:

*Deel B-1 waterdichte indeling en stabiliteit van vrachtschepen in beschadigde toestand**

(Dit deel is van toepassing op vrachtschepen gebouwd op of na 1 februari 1992.)

Voorschrift 25-1

Toepassing

1. De voorschriften van dit deel zijn van toepassing op vrachtschepen met een lengte („L_S") van meer dan 100 m, maar niet op schepen waarvan is aangetoond dat zij voldoen aan de voorschriften inzake waterdichte indeling en stabiliteit in beschadigde toestand in andere door de Organisatie opgestelde documenten**.

2. Elke verwijzing in het onderstaande naar voorschriften verwijst naar de *voorschriften vervat in dit deel.*

3. De Administratie kan voor een bepaald schip of een bepaalde groep schepen andere voorzieningen aanvaarden, indien te haren genoegen is aangetoond dat ten minste dezelfde mate van veiligheid wordt bereikt als in deze voorschriften. Een Administratie die zulke andere voorzieningen toestaat, deelt de Organisatie de bijzonderheden daarvan mede.

* De Maritieme Veiligheidscommissie heeft, bij de aanneming van de in deel B-1 vervatte voorschriften, de Administraties verzocht er nota van te nemen dat de voorschriften dienen te worden toegepast in samenhang met de toelichtende opmerkingen opgesteld door de Organisatie ten einde de eenvormige toepassing ervan te verzekeren.

** Zoals Bijlage I bij MARPOL 73/78, de IBC- IGC-, BCH- en GC-Codes, de Richtlijnen voor het ontwerp en de bouw van bevoorradingsschepen van voor de kust gelegen installaties (resolutie A.469(XII), de Veiligheidscode voor schepen voor speciale doeleinden (resolutie A.534(13) en voorschrift 27 van het Verdrag inzake de uitwatering van schepen, 1966 voor schepen met onverpakte lading waarvoor een vrijboord B-60 of B-100 is vastgesteld.

Voorschrift 25-2

Begripsomschrijvingen

Tenzij uitdrukkelijk anders is bepaald, gelden voor de toepassing van deze voorschriften de volgende begripsbepalingen:

1.1 „Indelingslastlijn" is een waterlijn, gebruikt bij de vaststelling van de waterdichte indeling van het schip.

1.2 „Hoogst gelegen indelingslastlijn" is de indelingslastlijn die overeenkomt met de voor het schip vast te stellen zomerdiepgang.

1.3 „Gedeeltelijke indelingslastlijn" is de diepgang van het schip in onbeladen toestand vermeerderd met 60% van het verschil tussen de diepgang van het schip in onbeladen toestand en de hoogst gelegen indelingslastlijn.

2.1 „Indelingslengte van het schip („L_S")" is de grootste geprojecteerde lengte naar de mal van dat deel van het schip op of onder het dek of de dekken die de verticale mate van vollopen begrenzen als het schip op de hoogste indelingslastlijn ligt.

2.2 „Midden van de lengte" is het middelpunt van de indelingslengte van het schip.

2.3 „Achtergrenslijn" de achterste begrenzing van de indelingslengte.

2.4 „Voorgrenslijn" de voorste begrenzing van de indelingslengte.

3. „Breedte" („B") is de grootste breedte naar de mal van het schip op of onder de hoogst gelegen indelingslastlijn.

4. „Diepgang" („d") is de verticale afstand van de lijn van de onderkant spanten tot de beschouwde indelingslastlijn, gemeten op het midden van de lengte.

5. „Permeabiliteit" („u") van een ruimte is het gedeelte van de volgelopen inhoud van die ruimte die door water kan worden ingenomen.

Voorschrift 25-3

Vereiste indelingsindex „R"

1. Deze voorschriften hebben ten doel met een minimum standaard-indeling voor schepen te verzekeren.

2. De mate van indeling wordt bepaald door de vereiste indelingsindex „R" als volgt:

$$R = (0{,}002 + 0.0009L_S)\ ⅓ \text{ waarbij „}L_S\text{" in meters is.}$$

Voorschrift 25-4

Verkregen indelingsindex „A"

1. De verkregen indelingsindex „A" berekend overeenkomstig dit voorschrift, mag niet kleiner zijn dan de vereiste indelingsindex „R", berekend overeenkomstig voorschrift 25-3, tweede lid.

2. De verkregen indelingsindex „A" wordt voor het schip berekend met de volgende formule:

$$A = \sum p_i s_i$$

waarbij:

„i" elke afdeling of groep afdelingen onder beschouwing is

„p_i" de waarschijnlijkheid aangeeft dat slechts de afdeling of groep van afdelingen onder beschouwing zullen vollopen, ongeacht een horizontale indeling,

„s_i" de waarschijnlijkheid van overleven aangeeft na het vollopen van de afdeling of groep van afdelingen onder beschouwing, met inbegrip van de invloed van een horizontale indeling.

3. Bij de berekening van „A" wordt uitgegaan van een gelijklastige toestand.

4. Deze optelling betreft alleen de gevallen van vollopen die bijdragen aan de waarde van de verkregen indelingsindex „A".

5. De optelling aangegeven door bovenstaande formule geschiedt over de lengte van het schip voor alle gevallen van vollopen waarbij een enkele afdeling of twee of meer aangrenzende afdelingen zijn betrokken.

6. Wanneer er zijafdelingen zijn aangebracht wordt uitgegaan van een bijdrage aan de door de formule aangegeven berekening voor alle gevallen van vollopen waarbij zijafdelingen zijn betrokken, en daarnaast voor alle gevallen van gelijktijdig vollopen van een zijafdeling of -afdelingen en de aangrenzende binnenboords gelegen afdeling of afdelingen, uitgaande van een rechthoekige penetratie die zich uit-

strekt tot de middenlijn van het schip, doch met uitzondering van beschadiging van een schot in het vlak van kiel en steven.

7. De aangenomen omvang van de verticale beschadiging strekt zich uit van de lijn van onderkant spanten naar boven tot een waterdichte horizontale indeling boven de waterlijn of hoger. Indien evenwel een beschadiging van kleinere omvang een gevaarlijker toestand zou veroorzaken, moet deze beschadiging worden aangenomen.

8. Als pijpen, leidingen of tunnels zijn gelegen binnen de aangenomen volgelopen afdeling, moeten er voorzieningen worden getroffen om te verzekeren dat het geleidelijk vollopen niet daardoor zich kan uitstrekken tot andere dan de als volgelopen aangenomen afdelingen. De Administratie kan evenwel een geringe mate van geleidelijk vollopen toestaan als wordt aangetoond dat de gevolgen daarvan gemakkelijk bestreden kunnen worden en de veiligheid van het schip niet wordt aangetast.

9. Bij de volgens de voorschriften verrichte berekeningen van het vollopen behoeft slechts één schade-opening van de scheepswand te worden aangenomen.

Voorschrift 25-5

Berekening van de factor „Pi”

1. De factor „Pi” moet worden berekend overeenkomstig paragraaf 1.1, waarbij de volgende aanduidingen worden gehanteerd:

x_1 = de afstand van de achterste begrenzing van „L_s” tot het voorste gedeelte van het achterste einde van de afdeling onder beschouwing;

x_2 = de afstand van de achterste begrenzing van „L_s” tot het achterste gedeelte van het vooreinde van de afdeling onder beschouwing;

$E_1 = x_1/L_s$

$E_2 = x_2/L_s$

$E = E_1 + E_2 - 1$

$J = E_2 - E_1$

$J' = J - E$, als $E \geqslant 0$

$J' = J + E$, als $E < 0$

De maximum waarde van de dimensieloze lengte van de beschadiging

$J_{max} = 48/L_S$, maar niet meer dan 0,24

De aangenomen verdeling van de dichtheid van de plaats van beschadiging langs de lengte van het schip

$a = 1{,}2 + 0{,}8E$, maar niet meer dan 1,2

De aangenomen verdelingsfunctie van de plaats van beschadiging langs de lengte van het schip

$F = 0{,}4 + 0{,}25\,E\,(1{,}2 + a)$

$y = J/J_{max}$

$P = F_1 J_{max}$

$q = 0{,}4\,F_2\,(J_{max})^2$

$F_1 = y^2 - \frac{y^3}{3}$, als $y < 1$,

$F_1 = y - \frac{1}{3}$ anderszins;

$F_2 = \frac{y^3}{3} - \frac{y^4}{12}$, als $y < 1$,

$F_2 = \frac{y^2}{2} - \frac{y}{3} + \frac{1}{12}$ anderszins.

1.1 De factor „pi" wordt voor elke afzonderlijke afdeling bepaald:

1.1.1 Wanneer de afdeling onder beschouwing zich uitstrekt over de gehele lengte van het schip „L_S":

$pi = 1$

1.1.2 Wanneer de achtergrens van de afdeling onder beschouwing samenvalt met de achterste begrenzing:

$pi = F + 0{,}5\,ap + q$

1.1.3 Wanneer de voorgrens van de afdeling onder beschouwing samenvalt met de voorste begrenzing:

$$pi = 1 - F + 0{,}5\ ap$$

1.1.4 Wanneer beide uiteinden van de afdeling onder beschouwing binnen de achterste en voorste begrenzingen van de lengte van het schip „L_S" zijn gelegen:

$$pi = ap$$

1.1.5 Bij de toepassing van de formules van de paragrafen 1.1.2, 1.1.3 en 1.1.4 wanneer de afdeling onder beschouwing zich uitstrekt over de „middenlengte", worden deze formules verminderd met een getal bepaald overeenkomstig de formule voor „q", waarbij „F_2" wordt berekend door „y" als J'/J_{max} te nemen.

2. Wanneer er zijafdelingen zijn aangebracht, wordt de „pi"-waarde voor een zijafdeling verkregen door de waarde zoals bepaald in paragraaf 3 te vermenigvuldigen met de verminderingsfactor „r" overeenkomstig paragraaf 2.2, die de waarschijnlijkheid aangeeft dat de binnenwaarts gelegen ruimten niet zullen vollopen.

2.1 De „pi"-waarde voor het geval van gelijktijdig vollopen van een zijafdeling en een aangrenzende binnenwaarts gelegen afdeling wordt verkregen door gebruikmaking van de formules van paragraaf 3, vermenigvuldigd met de factor (1 – r).

2.2 De verminderingsfactor „r" wordt bepaald door de volgende formules:

Voor $J \geqslant 0.2\ b/B$:

$$r = \frac{b}{B}\left(2{,}3 + \frac{0{,}08}{J + 0{,}02}\right) + 0{,}1, \text{ als } b/B \leqslant 0{,}2$$

$$r = \left(\frac{0{,}016}{J + 0{,}02} + \frac{b}{B} + 0{,}36\right), \text{ als } b/B > 0{,}2$$

Voor $J < 0{,}2\ b/B$ wordt de verminderingsfactor „r" bepaald door lineaire interpolatie tussen

$$r = 1, \text{ voor } J = 0$$

en

$$r = \text{zoals voor het geval waarin } J \geqslant 0{,}2b/B, \text{ voor } J = 0{,}2b/B,$$

waarin:

b – de gemiddelde afstand dwarsscheeps in meters, gemeten loodrecht op het vlak van kiel en stevens ter hoogte van de hoogst gelegen indelingslastlijn tussen de wand en een vlak door het uiterste deel van en parallel aan dat deel van het langsschot dat zich uitstrekt tussen de begrenzingen van de lengte gebruikt bij de berekening van de factor „p_i".

3. Ter bepaling van de waarde van „p_i" voor afzonderlijk genomen afdelingen worden de formules in de paragrafen 1 en 2 rechtstreeks toegepast.

3.1 Ter bepaling van de „p_i"-waarden die kunnen worden toegekend aan groepen van afdelingen geldt het volgende:

Voor in paren genomen afdelingen:

$p_i = p_{12} - p_1 - p_1$
$p_i = p_{23} - p_2 - p_3$ enz.

voor in groepen van drie genomen afdelingen:

$p_i = p_{123} - p_{12} - p_{23} + p_2$
$p_i = p_{234} - p_{23} - p_{34} + p_3$ enz.

voor in groepen van vier genomen afdelingen:

$p_i = p_{1234} - p_{123} - p_{234} + p_{23}$
$p_i = p_{2345} - p_{234} - p_{345} + p_{34}$ enz.

waarbij:

p_{12}, p_{23}, p_{34} enz.
p_{123}, p_{234}, p_{345} enz. en
p_{1234}, p_{2345}, p_{3456} enz.

worden berekend overeenkomstig de formules in 1 en 2 voor een enkele afdeling waarvan de dimensieloze lengte „J" overeenkomt met die van een groep bestaande uit de afdelingen aangegeven met de indexcijfers toegekend aan „p".

3.2 De factor „p_i" voor een groep van drie of meer aangrenzende afdelingen is gelijk aan nul als de dimensieloze lengte van zulk een groep min de dimensieloze lengte van de achterste en voorste afdelingen in de groep groter is dan „J_{max}".

Voorschrift 25-6

Berekening van de factor „s_i"

1. De factor „s_i" wordt voor elke afdeling of groep van afdelingen als volgt bepaald:

1.1 in het algemeen wordt voor ieder vollopen na een aanvankelijke beladingstoestand „s":

$$a = C\sqrt{0.5(LGZmax)(omvang)}$$

met $C = 1$, als $\theta e < 25°$,

$C = \theta$, als $\theta e > 30°$,

$C = \frac{30 - \theta e}{5}$, anderszins

GZmax = Maximale restarm van positieve statische stabiliteit (in meters) binnen het hieronder aangegeven bereik maar niet meer dan 0,1 m;

omvang = bereik van de armen van positieve statische stabiliteit gemeten vanuit de hoek van de evenwichtstoestand (in graden) maar niet meer dan 20°; het bereik eindigt evenwel bij de hoek waar openingen die niet tegen weer en wind kunnen worden afgesloten, worden ondergedompeld;

θe = slagzij in de eindtoestand (in graden);

1.2 s = O wanneer de waterlijn in de eindtoestand met inachtneming van inzinking, slagzij en trim de onderste rand van openingen onderdompelt waardoor geleidelijk vollopen kan plaatsvinden. Deze openingen omvatten luchtleidingen, ventilators en openingen die worden gesloten door middel van weerdichte deuren of luiken die dicht zijn tegen weer en wind, en omvatten niet de openingen gesloten door middel van waterdichte mangatdeksels en verzonken afsluiters, kleine waterdichte luiken die de waterdichtheid van het dek handhaven, op afstand bedienbare waterdichte schuifdeuren, toegangsdeuren en toegangen die waterdicht zijn, gewoonlijk gesloten zijn op zee en patrijspoorten die niet geopend kunnen worden. Indien evenwel rekening wordt gehouden met de volgelopen afdelingen bij de berekeningen worden de voorwaarden van dit voorschrift toegepast.

1.3 Voor elke afdeling of groep van afdelingen wordt „s_i" gewogen overeenkomstig de aannamen inzake diepgang, als volgt:

$$s_i = 0{,}5\ s_l + 0{,}5\ s_p$$

waarbij

„Ls_i" is de „s"-factor op de hoogst gelegen indelingslastlijn

„s_p" is de „s"-factor op de gedeeltelijke indelingslastlijn.

2. Voor alle voor het aanvaringsschot gelegen afdelingen moet de „s"-waarde, berekend ervan uitgaande dat het schip op de hoogst gelegen indelingslastlijn ligt en met een aangenomen onbeperkte verticale omvang van de beschadiging, gelijk zijn aan 1.

3. Wanneer boven de indelingslastlijn in kwestie een horizontale waterdichte indeling is aangebracht, geldt het volgende:

3.1 De „s"-waarde voor de lagere afdeling of groep van afdelingen wordt verkregen door de waarde zoals bepaald in paragraaf 1.1 te vermenigvuldigen met de verminderingsfactor „v" overeenkomstig paragraaf 3.3, die de waarschijnlijkheid weergeeft dat de ruimten boven de horizontale waterdichte indeling niet zullen vollopen.

3.2 In gevallen van een positieve bijdrage aan index „A" wegens gelijktijdig vollopen van de ruimten boven de horizontale waterdichte indeling, wordt de daaruit voortvloeiende „s"-waarde voor zo'n afdeling of groep van afdelingen verkregen door een verhoging van de waarde zoals bepaald aan de hand van paragraaf 3.1 met de „s"-waarde voor gelijktijdig vollopen overeenkomstig paragraaf 1.1, vermenigvuldigd met de factor (l–v).

3.3 De waarschijnlijkheidsfactor „v_i" wordt berekend volgens:

$v_i = \dfrac{H - d}{Hmax - d}$, voor het aangenomen vollopen tot de horizontale waterdichte indeling boven de indelingslastlijn, waarbij „H" moet worden beperkt tot een hoogte van „Hmax",

$v_i = 1$, indien de bovenste waterdichte indeling ter plaatste van de aangenomen plaats van beschadiging onder „Hmax" is gelegen, waarbij:

„H" is de hoogte van de horizontale onderverdeling boven de lijn onderkant spanten (in meters) waarvan wordt aangenomen dat deze de verticale omvang van de beschadiging begrenst,

„Hmax" is de maximum mogelijke verticale omvang van de beschadiging boven de lijn onderkant spanten (in meters) of

$$Hmax = d + 0{,}056\ L_S\ (1 - \frac{L_S}{500}) \quad \text{als } L_S \leqslant 250 \text{ m;}$$

$$Hmax = d + 7, \text{ als } L_S > 250 \text{ m}$$

welke van beide de kleinste is.

Voorschrift 25-7

Permeabiliteit

Voor de toepassing van de voorschriften betreffende de berekeningen inzake indeling en stabiliteit in beschadigde toestand, is de permeabiliteit van elke ruimte of deel van een ruimte als volgt:

Ruimten	*Permeabiliteit*
Bestemd voor voorraden	0,60
Gebruikt voor accommodatie	0,95
Gebruikt voor machines	0,85
Loze ruimten	0,95
Ruimte voor droge lading	0,70
Bestemd voor vloeistoffen	0 of 0,95*

* Welke van beide leidt tot strengere eisen.

Voorschrift 25-8

Stabiliteitsgegevens

1. Aan de kapitein van het schip moeten betrouwbare gegevens ter beschikking worden gesteld die nodig zijn om hem in staat te stellen op een snelle en eenvoudige wijze nauwkeurige gegevens te verkrijgen ter beoordeling van de stabiliteit van het schip in verschillende gebruikstoestanden. De gegevens omvatten:
   .1 een kromme van de minimum operationele metacentrische hoogte (GM) ten opzichte van de diepgang waardoor verze-

kerd wordt dat wordt voldaan aan de desbetreffende voorwaarden voor stabiliteit in beschadigde toestand en de eisen van de voorschriften 25-1 tot en met 25-6, of een overeenkomstige kromme van de maximum toelaatbare hoogte van het verticale zwaartepunt (KG) ten opzichte van de diepgang, dan wel equivalenten van een van deze krommen;

.2 instructies betreffende de werking van overvloeiinrichtingen;

.3 alle andere gegevens en hulpmiddelen die nodig zouden kunnen zijn voor de handhaving van de stabiliteit na beschadiging.

2. Tekeningen die voor elk dek en ruim duidelijk aangeven de begrenzende schotten van de waterdichte afdelingen, de openingen daarin met de middelen tot sluiting en de bedieningsplaatsen hiervan, zomede de inrichtingen voor de correctie van slagzij als gevolg van vollopen, moeten blijvend zijn opgehangen, of bij de hand zijn op de navigatiebrug, ter voorlichting van de officier van de wacht. Bovendien moeten instructieboekjes die de genoemde gegevens bevatten, ter beschikkng van de officieren worden gesteld.

3. Voor het verstrekken van de informatie bedoeld in paragraaf 1.1, de begrenzende GM (of KG) waarden die moeten worden gebruikt, indien deze zijn bepaald uit aannamen betreffende de indelingsindex, wordt de begrenzende GM lineair gevarieerd tussen de hoogst gelegen indelingslastlijn en de gedeeltelijke indelingslastlijn. In zulke gevallen wordt, voor een diepgang onder de gedeeltelijke indelingslastlijn als het minimum GM-vereiste bij deze diepgang voortvloeit uit de berekening van de indelingsindex deze GM-waarde aangenomen voor een geringere diepgang, tenzij de vereisten inzake intacte stabiliteit van toepassing zijn.

Voorschrift 25-9

Openingen in waterdichte schotten en niet blootgestelde dekken vrachtschepen

1. Het aantal openingen in waterdichte schotten moet worden beperkt tot het minimum verenigbaar met de algemene inrichting van het schip en de goede uitoefening van de dienst aan boord. Wanneer doorboring van waterdichte schotten en binnendekken noodzakelijk is voor toegang, leidingen, ventilatie, elektrische kabels, enz. moeten voorzieningen zijn getroffen om de waterdichtheid te handhaven. De Administratie kan een vermindering van de waterdichtheid van openingen boven het vrijboorddek toestaan, mits wordt aangetoond dat geleidelijk vollopen gemakkelijk kan worden gecontroleerd en de veiligheid van het schip niet wordt aangetast.

2. Deuren ter waarborging van de waterdichtheid van inwendige openingen die op zee niet worden gebruikt, moeten waterdichte

schuifdeuren zijn die op afstand vanaf de brug kunnen worden gesloten en ook ter plaatse kunnen worden geopend of gesloten vanaf beide zijden van het schot. Er moeten op de controlepost standaanwijzers zijn die aangeven of de deuren open of dicht zijn en een hoorbaar alarm wanneer de deur wordt gesloten. De bekrachtiging, controle en standaanwijzers moeten bij het uitvallen van de hoofdenergiebron kunnen worden gebruikt. Er moet bijzondere aandacht worden besteed aan het tot een minimum terugbrengen van de gevolgen van een defect in het controlesysteem. Elke bekrachtigde waterdichte schuifdeur moet zijn voorzien van een afzonderlijk mechanisme voor bediening met de hand. Het moet mogelijk zijn de deur ter plaatse aan beide zijden met de hand te openen en te sluiten.

3. Toegangsdeuren en toegangsluiken die op zee normaal zijn gesloten, bedoeld ter verzekering van de waterdichtheid van inwendige openingen, moeten ter plaatse en op de brug zijn voorzien van standaanwijzers die aangeven of deze deuren of luiken open of gesloten zijn. Op elke deur of elk luik moet een aanwijzing zijn aangebracht dat deze of dit niet mag worden opengelaten. Het gebruik van deze deuren en luiken moet door de officier van de wacht worden toegestaan.

4. Waterdichte deuren of kleppen van deugdelijke constructie kunnen worden aangebracht om grote laadruimten inwendig te verdelen, mits ten genoegen van de Administratie is aangetoond dat deze deuren of kleppen noodzakelijk zijn. Deze deuren of kleppen kunnen zijn opgehangen in scharnieren, dan wel rol- of schuifdeuren of -kleppen zijn, maar mogen niet op afstand bedienbaar zijn. Deze deuren of kleppen worden gesloten voor het begin van de reis en worden tijdens de reis gesloten gehouden; het tijdstip waarop deze deuren of kleppen in de haven worden geopend en waarop zij worden gesloten voordat het schip de haven verlaat, worden aangetekend in het logboek. Indien deuren of kleppen tijdens de reis toegankelijk moeten zijn, moeten zij zijn uitgerust met een voorziening ter voorkoming van openen door onbevoegden.

5. Andere sluitvoorzieningen die op zee permanent gesloten worden gehouden ter verzekering van de waterdichtheid van inwendige openingen moeten zijn voorzien van een op elk van deze sluitvoorzieningen aan te brengen aanwijzing dat zij gesloten moeten worden gehouden. Mangaten voorzien van bouten op dichte steek behoeven niet aldus te worden gemerkt.

Voorschrift 25-10

Openingen in de scheepshuid van vrachtschepen

1. Alle openingen in de scheepshuid die leiden naar bij de analyse van beschadiging als onbeschadigd aangenomen afdelingen die onder

de definitieve waterlijn bij beschadiging zijn gelegen, moeten waterdicht zijn.

2. Openingen in de scheepshuid die overeenkomstig paragraaf 1 waterdicht moeten zijn moeten voldoende sterk zijn en, behalve ladingluiken, zijn voorzien van standaanwijzers op de brug.

3. Openingen in de scheepshuid onder het dek dat de verticale omvang van beschadiging begrenst, moeten op zee permanent gesloten worden gehouden. Indien een opening tijdens de reis toegankelijk is, moet deze zijn voorzien van een inrichting waardoor openen door onbevoegden wordt voorkomen.

4. Niettegenstaande de vereisten van paragraaf 3 kan de Administratie toestaan dat bepaalde deuren naar goeddunken van de kapitein worden geopend, indien zulks noodzakelijk voor de werkzaamheden van het schip en mits de veiligheid van het schip niet wordt aangetast.

5. Andere sluitingsinrichtingen die op zee permanent gesloten worden gehouden ter verzekering van de waterdichtheid van openingen in de scheepshuid moeten zijn voorzien van een op elke inrichting aangebrachte aanwijzing dat zij gesloten moeten worden gehouden. Mangaten voorzien van bouten op dichte steek behoeven niet zo te worden gemerkt.

De Conferentie van Verdragsluitende Regeringen, welke van 31 oktober tot 11 november 1988 te Londen werd gehouden, heeft op 9 november 1988 een resolutie aangenomen houdende wijziging van het onderhavige Verdrag.

De wijzigingen behoeven ingevolge artikel 91, juncto additioneel artikel XXI, eerste lid, onderdeel b, van de Grondwet en juncto artikel 62, eerste lid, onderdeel b, van de Grondwet naar de tekst van 1972 niet de goedkeuring van de Staten-Generaal.

De wijzigingen zijn op 1 februari 1990 aanvaard en op 1 februari 1992 in werking getreden.

De Engelse tekst van de wijzigingen luidt als volgt:

Resolution 1 of the Conference of Contracting Governments to the International Convention for the Safety of Life at Sea, 1974 on the Global Maritime Distress and Safety System adopted on 9 November 1988

Adoption of Amendments to the International Convention for the Safety of Life at Sea, 1974 concerning Radiocommunications for the Global Maritime Distress and Safety System

The Conference,

Noting article VIII(c) of the International Convention for the Safety of Life at Sea, 1974 (hereinafter referred to as "the Convention") concerning the procedure for amending the Convention by a Conference of Contracting Governments,

Having considered amendments to the Convention concerning radiocommunications proposed and circulated to the Members of the Organization and all Contracting Governments to the Convention,

1. Adopts, in accordance with article VIII(c)(ii) of the Convention, amendments to chapters I, II-1, III, IV, V of, and the appendix to the Convention, the texts of which are given in the annex to the present resolution;

2. Decides, in accordance with article VIII(c)(iii), that the amendments shall be deemed to have been accepted and shall enter into force in accordance with the following procedures:

a) The amendments shall be deemed to have been accepted on 1 February 1990, unless by that date one third of the Contracting Governments, or Contracting Governments the combined merchant fleets of which constitute not less than fifty per cent of the gross tonnage of the world's merchant fleet, notify the Secretary-General of the Organization that they object to the amendments;

b) The amendments which are deemed to have been accepted in accordance with paragraph (a) shall enter into force with respect to all Contracting Governments except those which have objected to the amendments under paragraph (a) and which have not withdrawn such objections, on 1 February 1992.

Annex to Resolution 1

Amendments to the International Convention for the Safety of Life at Sea, 1974 concerning Radiocommunications for the Global Maritime Distress and Safety System

CHAPTER I

GENERAL PROVISIONS

PART B – SURVEYS AND CERTIFICATES

Regulation 7

Surveys of passenger ships

In the second sentence of paragraphs (b)(i) and (b)(ii) the words "radio installation, radiotelegraph installations in motor lifeboats, portable radio apparatus for survival craft, life-saving appliances, fire protection, fire detecting and extinguishing appliances, radar, echo-sounding device, gyro-compass, pilot ladders, mechanical pilot hoists and other equipment" are replaced by the words "radio installations including those used in life-saving appliances, fire protection, fire safety systems and appliances, life-saving appliances and arrangements, shipborne navigational equipment, nautical publications, means of embarkation for pilots and other equipment".

Regulation 8

Surveys of life-saving appliances and other equipment of cargo ships

In the first sentence the words "The life-saving appliances, except a radiotelegraph installation in a motor lifeboat or a portable apparatus for survival craft, the echo-sounding device, the gyro compass and the fire-extinguishing appliances of cargo ships" are replaced by "The life-saving appliances and arrangements (except radio installations), the shipborne navigational equipment and the fire safety systems and appliances of cargo ships of 500 tons gross tonnage and upwards".

In the second sentence the words "the pilot ladders, mechanical pilot hoists," are replaced by the words "means of embarkation of pilots, nautical publications,".

Regulation 9

The existing title of the regulation is replaced by:

"Surveys of radio installations of cargo ships"

The existing text is replaced by:

"The radio installations of cargo ships, including those used in life-saving appliances, to which chapters III and IV apply, shall be subject to initial and subsequent surveys as provided for passenger ships in regulation 7 of this chapter."

Regulation 10

Surveys of hull, machinery and equipment of cargo ships

The existing words ", Cargo Ship Safety Radiotelegraphy Certificates or Cargo Ship SafetyRadiotelephony Certificates" are replaced by "or Cargo Ship Safety Radio Certificates".

Regulation 12

Issue of certificates

In paragraph (a) the existing text of subparagraphs (iv) and (v) is replaced by:

"(iv) A certificate called a Cargo Ship Safety Radio Certificate shall be issued to a cargo ship which complies with the requirements of chapter IV and any other relevant requirements of the present regulations.

(v) The Passenger Ship Safety Certificate, the Cargo Ship Safety Equipment Certificate and the Cargo Ship Safety Radio Certificate, referred to in subparagraphs (i), (iii) and (iv), shall be supplemented by a Record of Equipment adopted by the Conference of Contracting Governments to the International Convention for the Safety of Life at Sea, 1974 on the Global Maritime Distress and Safety System, 1988, by resolution 2 as it may be amended."

In paragraph (a)(vii) the existing words "Cargo Ship Safety Radiotelegraphy Certificates, Cargo Ship Safety Radiotelephony Certificates" are replaced by "Cargo Ship Safety Radio Certificates".

Existing paragraph (b) is replaced by:

"b) Notwithstanding any other provisions of the present Convention, any certificate which is issued under, and in accordance with, the provisions of the Convention and which is current on 1 February 1992 shall remain valid until it expires."

Regulation 14

Duration of certificates

In paragraph (b) the existing words "Cargo Ship Safety Radiotelegraphy Certificate or a Cargo Ship Safety Radiotelephony Certificate" are replaced by "Cargo Ship Safety Radio Certificate".

CHAPTER II-1

CONSTRUCTION – SUBDIVISION AND STABILITY, MACHINERY AND ELECTRICAL INSTALLATIONS

PART D – ELECTRICAL INSTALLATIONS

Regulation II-1/42

Emergency source of electrical power in passenger ships

The existing text of subparagraph 2.2 is replaced by the following:

"2.2 For a period of 36 hours:
.1 the navigation lights and other lights required by the International Regulations for Preventing Collisions at Sea in force; and
.2 on ships constructed on or after 1 February 1995, the VHF radio installation required by regulation IV/7.1.1 and IV/7.1.2; and, if applicable:
.2.1 the MF radio installation required by regulations IV/9.1.1, IV/9.1.2, IV/10.1.2 and IV/10.1.3;
.2.2 the ship earth station required by regulation IV/10.1.1; and
.2.3 the MF/HF radio installation required by regulations IV/10.2.1, IV/10.2.2 and IV/11.1."

In paragraph 2.3.2 the existing words "the navigational aids" are replaced by "the shipborne navigational equipment".

The existing text of paragraph 4.1.1 is replaced by the following:

".1 the lighting required by paragraphs 2.1 and 2.2.1;".

Regulation 43

Emergency source of electrical power in cargo ships

The existing text of subparagraph 2.3 is replaced by the following:

"2.3 For a period of 18 hours:
.1 the navigation lights and other lights required by the International Regulations for Preventing Collisions at Sea in force;
.2on ships constructed on or after 1 February 1995 the VHF radio installation required by regulation IV/7.1.1 and IV/7.1.2; and, if applicable:
.2.1 the MF radio installation required by regulations IV/9.1.1, IV/9.1.2, IV/10.1.2 and IV/10.1.3;
.2.2 the ship earth station required by regulation IV/10.1.1; and
.2.3 the MF/HF radio installation required by regulations IV/10.2.1, IV/10.2.2 and IV/11.1".

In paragraph 2.4.2 the existing words "the navigational aids" are replaced by "the shipborne navigational equipment".

In paragraph 4.1, the existing words "the lighting required by paragraphs 2.1, 2.2 and 2.3" are replaced by the following:

"the lighting required by paragraphs 2.1, 2.2 and 2.3.1".

CHAPTER III

LIFE-SAVING APPLIANCES AND ARRANGEMENTS

Regulation III/1

Application

The existing texts of paragraphs 5 and 6 are replaced by:

"5. *With respect to ships constructed before 1 July 1986*, the requirements of regulations 8, 9, 10, 18, 21.3, 21.4, 25, 26.3, 27.2, 27.3 and 30.2.7 and, to the extent prescribed therein, regulations 19 shall apply.

6. With respect to ships constructed before 1 February 1992, regulation 6.2, shall apply not later than 1 February 1995."

Regulation III/6

Communications

The existing text of paragraph 1 is replaced by:

"1. Paragraph 2 applies to all passenger ships and to all cargo ships of 300 tons gross tonnage and upwards. With respect to ships constructed before 1 February 1992, paragraph 2 shall apply not later than 1 February 1995. However, ships other than cargo ships of 300 tons gross tonnage and upwards but less than 500 tons gross tonnage which do not comply with paragraph 2 shall comply with all applicable requirements* of chapter III of the International Convention for the Safety of Life at Sea, 1974 in force prior to 1 February 1992."

The existing text of paragraph 2 is replaced by:

"2. *Radio life-saving appliances*

2.1 *Two-way VHF radiotelephone apparatus*

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* Regulations III/6.2.3 and 6.2.4 and as applicable regulations III/6.2.1, 6.2.2, 10.6, 38.3.2, 41.7.8 and 42.5 in force prior to 1 February 1992 (1983 SOLAS amendments). See also resolution 4 of the 1988 GMDSS Conference.

2.1.1 At least three two-way VHF radiotelephone apparatus shall be provided on every passenger ship and on every cargo ship of 500 tons gross tonnage and upwards. At least two two-way VHF radiotelephone apparatus shall be provided on every cargo ship of 300 tons gross tonnage and upwards but less than 500 tons gross tonnage. Such apparatus shall conform to performance standards not inferior to those adopted by the Organization.* If a fixed two-way VHF radiotelephone apparatus is fitted in a survival craft it shall conform to performance standards not inferior to those adopted by the Organization.*

2.1.2 Two-way VHF radiotelephone apparatus provided on board ships prior to 1 February 1992 and not complying fully with the performance standards adopted by the Organization may be accepted by the Administration until 1 February 1999 provided the Administration is satisfied that they are compatible with approved two-way VHF radiotelephone apparatus.

2.2 *Radar transponders*

At least one radar transponder shall be carried on each side of every passenger ship and of every cargo ship of 500 tons gross tonnage and upwards. At least one radar transponder shall be carried on every cargo ship of 300 tons gross tonnage and upwards but less than 500 tons gross tonnage. Such radar transponders shall conform to performance standards not inferior to those adopted by the Organization.** The radar transponders*** shall be stowed in such locations that they can be rapidly placed in any survival craft other than the liferaft or liferafts required by regulation 26.1.4. Alternatively one radar transponder shall be stowed in each survival craft other than those required by regulation 26.1.4."

Regulation III/10

Manning of survival craft and supervision

The existing paragraph 6 is revoked.

The existing paragraphs 7 and 8 are renumbered as paragraphs 6 and 7 respectively.

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* Reference is made to the performance standards for survival craft two-way VHF radiotelephone apparatus, adopted by the Organization by resolution A.605(15).

** Reference is made to the performance standards for survival craft radar transponders for use in search and rescue operations, adopted by the Organization by resolution A.604(15).

*** One of these radar transponders may be the radar transponder required by regulation IV/7.1.3.

Regulation III/38

General requirements for liferafts

The existing paragraph 3.2 is revoked.
The existing paragraph 3.3 is renumbered as paragraph 3.2.
The existing text of paragraph 5.1.14 is replaced by:

".14 an efficient radar reflector, unless a survival craft radar transponder is stowed in the liferaft."

Regulation III/41

General requirements for lifeboats

The existing text of paragraph 7.8 is replaced by:

"7.8 Every lifeboat which is fitted with a fixed two-way VHF radiotelephone apparatus with an antenna which is separately mounted shall be provided with arrangements for siting and securing the antenna effectively in its operating position."
The existing text of paragraph 8.30 is replaced by:

".30 an efficient radar reflector, unless a survival craft radar transponder is stowed in the lifeboat."

Regulation III/42

Partially enclosed lifeboats

The existing text of paragraph 5 is replaced by:

"5. If a fixed two-way VHF radiotelephone apparatus is fitted in the lifeboat, it shall be installed in a cabin large enough to accommodate both the equipment and the person using it. No separate cabin is required if the construction of the lifeboat provides a sheltered space to the satisfaction of the Administration."

CHAPTER IV

The existing text of chapter IV is replaced by the following:

"RADIOCOMMUNICATIONS

PART A – GENERAL

Regulation 1

Application

1. This chapter applies to all ships to which the present regulations apply and to cargo ships of 300 tons gross tonnage and upwards.

2. This chapter does not apply to ships to which the present regulations would otherwise apply while such ships are being navigated within the Great Lakes of North America and their connecting and tributary waters as far east as the lower exit of the St. Lambert Lock at Montreal in the Province of Quebec, Canada*.

3. For the purpose of this chapter:

.1 the expression "ships constructed" means "ships the keels of which are laid or which are at a similar stage of construction";

.2 the expression "a similar stage of construction" means the stage at which:

.2.1 construction identifiable with a specific ship begins; and

.2.2 assembly of that ship has commenced comprising at least 50 tonnes or 1% of the estimated mass of all structural material, whichever is less.

4. Every ship shall comply with regulations 7.1.4 (NAVTEX) and 7.1.6 (satellite EPIRB) not later than 1 August 1993.

5. Subject to the provisions of paragraph 4, the Administration shall ensure that every ship constructed before 1 February 1995:

.1 during the period between 1 February 1992 and 1 February 1999:

.1.1 either complies with all applicable requirements of this chapter; or

.1.2 complies with all applicable requirements of chapter IV of the International Convention for the Safety of Life at Sea, 1974 in force prior to 1 February 1992; and

.2 after 1 February 1999, complies with all the applicable requirements of this chapter.

6. Every ship constructed on or after 1 February 1995 shall comply with all the applicable requirements of this chapter.

7. No provision in this chapter shall prevent the use by any ship, survival craft or person in distress, of any means at their disposal to attract attention, make known their position and obtain help.

Regulation 2

Terms and definitions

1. For the purpose of this chapter, the following terms shall have the meanings defined below:

* Such ships are subject to special requirements relative to radio for safety purposes, as contained in the relevant agreement between Canada and the United States of America.

.1 "Bridge-to-bridge communications" means safety communications between ships from the position from which the ships are normally navigated.

.2 "Continuous watch" means that the radio watch concerned shall not be interrupted other than for brief intervals when the ship's receiving capability is impaired or blocked by its own communications or when the facilities are under periodical maintenance or checks.

.3 "Digital selective calling (DSC)" means a technique using digital odes which enables a radio station to establish contact with, and transfer information to, another station or group of stations, and complying with the relevant recommendations of the International Radio Consultative Committee (CCIR).

.4 "Direct-printing telegraphy" means automated telegraphy techniques which comply with the relevant recommendations of the International Radio Consultative Committee (CCIR).

.5 "General radiocommunications" means operational and public correspondence traffic, other than distress, urgency and safety messages, conducted by radio.

.6 "INMARSAT" means the Organization established by the Convention on the International Maritime Satellite Organization (INMARSAT) adopted on 3 September 1976.

.7 "International NAVTEX Service" means the co-ordinated broadcast and automatic reception on 518 kHz of maritime safety information by means of narrow-band direct-printing telegraphy using the English language*.

.8 "Locating" means the finding of ships, aircraft, units or persons in distress.

.9 "Maritime safety information" means navigational and meteorological warnings, meteorological forecasts and other urgent safety related messages broadcast to ships.

.10 "Polar orbiting satellite service" means a service which is based on polar orbiting satellites which receive and relay distress alerts from satellite EPIRBs and which provides their position.

.11 "Radio Regulations" means the Radio Regulations annexed to, or regarded as being annexed to, the most recent International Telecommunication Convention which is in force at any time.

.12 "Sea area A1" means an area within the radiotelephone coverage of at least one VHF coast station in which continu-

* Reference is made to the NAVTEX manual approved by the Organization.

ous DSC alerting is available, as may be defined by a Contracting Government*.

.13 "Sea area A2" means an area, excluding sea area A1, within the radiotelephone coverage of at least one MF coast station in which continuous DSC alerting is available, as may be defined by a Contracting Government*.

.14 "Sea area A3" means an area, excluding sea areas A1 and A2, within the coverage of an INMARSAT geostationary satellite in which continuous alerting is available.

.15 "Sea area A4" means an area outside sea areas A1, A2 and A3.

2. All other terms and abbreviations which are used in this chapter and which are defined in the Radio Regulations shall have the meanings as defined in those Regulations.

Regulation 3

Exemptions

1. The Contracting Governments consider it highly desirable not to deviate from the requirements of this chapter; nevertheless the Administration may grant partial or conditional exemptions to individual ships from the requirements of regulations 7 to 11 provided:

.1 such ships comply with the functional requirements of regulation 4; and

.2 the Administration has taken into account the effect such exemptions may have upon the general efficiency of the service for the safety of all ships.

2. An exemption may be granted under paragraph 1 only:

.1 if the conditions affecting safety are such as to render the full application of regulations 7 to 11 unreasonable or unnecessary;

.2 in exceptional circumstances, for a single voyage outside the sea area or sea areas for which the ship is equipped; or

.3 prior to 1 February 1999, when the ship will be taken permanently out of service within two years of a date prescribed by regulation 1 for the application of a requirement of this chapter.

3. Each Administration shall submit to the Organization, as soon as possible after the first of January in each year, a report showing all exemptions granted under paragraphs 1 and 2 during the previous calendar year and giving the reasons for granting such exemptions.

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* Reference is made to the recommendation on the provision of radiocommunication services for the global maritime distress and safety system, to be developed by the Organization (see MSC 55/25, annex 3).

Regulation 4

Functional requirements

Every ship, while at sea, shall be capable:

.1 except as provided in regulations 8.1.1 and 10.1.4.3, of transmitting ship-to-shore distress alerts by at least two separate and independent means, each using a different radiocommunication service;

.2 of receiving shore-to-ship distress alerts;

.3 of transmitting and receiving ship-to-ship distress alerts;

.4 of transmitting and receiving search and rescue co-ordinating communications;

.5 of transmitting and receiving on-scene communications;

.6 of transmitting and, as required by regulation V/12(g) and (h), receiving signals for locating*;

.7 of transmitting and receiving** maritime safety information;

.8 of transmitting and receiving general radiocommunications to and from shore-based radio systems or networks subject to regulation 15.8; and

.9 of transmitting and receiving bridge-to-bridge communications.

PART B – UNDERTAKINGS BY CONTRACTING GOVERNMENTS***

Regulation 5

Provisions of radiocommunication services

1. Each Contracting Government undertakes to make available, as it deems practical and necessary either individually or in co-operation with other Contracting Governments, appropriate shore-based facilities for space and terrestrial radiocommunication services having due regard to the recommendations of the Organization****. These services are:

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* Reference is made to resolution A.614(15) on carriage of radar operating in the frequency band 9,300–9,500 MHz adopted by the fifteenth Assembly.

** It should be noted that ships may have a need for reception of certain maritime safety information while in port.

*** 1 Each Contracting Government is not required to provide all radiocommunication services.

2 The requirements should be specified for shore-based facilities to cover the various sea areas.

**** Reference is made to the recommendation on the provisions of radiocommunication services for the global maritime distress and safety system, to be developed by the Organization (see MSC 55/25, annex 3).

.1 a radiocommunication service utilizing geostationary satellites in the Maritime Mobile-Satellite Service;
.2 a radiocommunication service utilizing polar orbiting satellites in the Mobile-Satellite Service;
.3 the Maritime Mobile Service in the bands between 156 MHz and 174 MHz;
.4 the Maritime Mobile Service in the bands between 4,000 kHz and 27,500 kHz; and
.5 the Maritime Mobile Service in the bands between 415 kHz and 535 kHz and between 1,605 kHz and 4,000 kHz.

2. Each Contracting Government undertakes to provide the Organization with pertinent information concerning the shore-based facilities in the Martime Mobile Service, Mobile-Satellite Service and Maritime Mobile-Satellite Service, established for sea areas which it has designated off its coasts.

PART C – SHIP REQUIREMENTS

Regulation 6

Radio installations

1. Every ship shall be provided with radio installations capable of complying with the functional requirements prescribed by regulation 4 throughout its intended voyage and, unless exempted under regulation 3, complying with the requirements of regulation 7 and, as appropriate for the sea area or areas through which it will pass during its intended voyage, the requirements of either regulation 8, 9, 10 or 11.

2. Every radio installation shall:
.1 be so located that no harmful interference of mechanical, electrical or other origin affects its proper use, and so as to ensure electromagnetic compatibility and avoidance of harmful interaction with other equipment and systems;
.2 be so located as to ensure the greatest possible degree of safety and operational availability;
.3 be protected against harmful effects of water, extremes of temperature and other adverse environmental conditions;
.4 be provided with reliable, permanently arranged electrical lighting, independent of the main and emergency sources of electrical power, for the adequate illumination of the radio controls for operating the radio installation; and
.5 be clearly marked with the call sign, the ship station identity and other codes as applicable for the use of the radio installation.

3. Control of the VHF radiotelephone channels, required for navigational safety, shall be immediately available on the navigating bridge convenient to the conning position and, where necessary, facilities should be available to permit radiocommunications from the wings of the navigating bridge. Portable VHF equipment may be used to meet the latter provision.

Regulation 7

Radio equipment – General

1. Every ship shall be provided with:
   .1 a VHF radio installation capable of transmitting and receiving:
   .1.1 DSC* on the frequency 156.525 MHz (channel 70). It shall be possible to initiate the transmission of distress alerts on channel 70 from the position from which the ship is normally navigated**; and
   .1.2 radiotelephony on the frequencies 156.300 MHz (channel 6), 156.650 MHz (channel 13) and 156.800 MHz (channel 16);
   .2 a radio installation capable of maintaining a continuous DSC watch on VHF channel 70 which may be separate from, or combined with, that required by subparagraph .1.1**;
   .3 a radar transponder capable of operating in the 9 GHz band, which:
   .3.1 shall be so stowed that it can be easily utilized; and
   .3.2 may be one of those required by regulation III/6.2.2 for a survival craft;
   .4 a receiver capable of receiving International NAVTEX service broadcasts if the ship is engaged on voyages in any area in which an International NAVTEX service is provided;
   .5 a radio facility for reception of maritime safety information by the INMARSAT enhanced group calling system if the ship is engaged on voyages in any area of INMARSAT coverage but in which an international NAVTEX service is not provided. However, ships engaged exclusively on voyages in areas where an HF direct-printing telegraphy* maritime

* Digital selective calling (DSC) for all ships and HF direct-printing telegraphy (NBDP) carriage requirements for ships of 300 tons gross tonnage and over but less than 1,600 tons gross tonnage are subject to review in accordance with resolution A.606(15) – Review and evaluation of the GMDSS. Unless otherwise specified this footnote applies to all DSC and NBDP requirements prescribed in the Convention.

** Certain ships may be exempted from this requirement (see regulation 9.4).

safety information service is provided and fitted with equipment capable of receiving such service, may be exempt from this requirement*.

.6 subject to the provisions of regulation 8.3, a satellite emergency position-indicating radio beacon (satellite EPIRB) which shall be:

.6.1 capable of transmitting a distress alert either through the polar orbiting satellite service operating in the 406 MHz band or, if the ship is engaged only on voyages within INMARSAT coverage, through the INMARSAT geostationary satellite service operating in the 1.6 GHz band**;

.6.2 installed in an easily accessible position;

.6.3 ready to be manually released and capable of being carried by one person into a survival craft;

.6.4 capable of floating free if the ship sinks and of being automatically activated when afloat; and

.6.5 capable of being activated manually.

2. Until 1 February 1999 or until such other date as may be determined by the Maritime Safety Committee, every ship shall, in addition, be fitted with a radio installation consisting of a radiotelephone distress frequency watch receiver capable of operation on 2,182 kHz.

3. Until 1 February 1999, every ship shall, unless the ship is engaged on voyages in sea area A1 only, be fitted with a device for generating the radiotelephone alarm signal on the frequency 2,182 kHz.

4. The Administration may exempt ships constructed on or after 1 February 1997 from the requirements prescribed by paragraphs 2 and 3."

Regulation 8

Radio equipment – Sea area A1

1. In addition to meeting the requirements of regulation 7, every ship engaged on voyages exclusively in sea area A1 shall be provided

* Reference is made to the recommendation on promulgation of maritime safety information, to be developed by the Organization (see MSC 55/25, annex 8).

** Subject to the availability of appropriate receiving and processing ground facilities for each ocean region covered by INMARSAT satellites.

with a radio installation capable of initiating the transmission of ship-to-shore distress alerts from the position from which the ship is normally navigated, operating either:

.1 on VHF using DSC; this requirement may be fulfilled by the EPIRB prescribed by paragraph 3, either by installing the EPIRB close to, or by remote activation from, the position from which the ship is normally navigated; or

.2 through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by regulation 7.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated; or

.3 if the ship is engaged on voyages within coverage of MF coast stations equipped with DSC, on MF using DSC; or

.4 on HF using DSC; or

.5 through the INMARSAT geostationary satellite service; this requirement may be fulfilled by:

.5.1 an INMARSAT ship earth station*; or

.5.2 the satellite EPIRB, required by regulation 7.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated.

2. The VHF radio installation, required by regulation 7.1.1, shall also be capable of transmitting and receiving general radiocommunications using radiotelephony.

3. Ships engaged on voyages exclusively in sea area A1 may carry, in lieu of the satellite EPIRB required by regulation 7.1.6, an EPIRB which shall be:

.1 capable of transmitting a distress alert using DSC on VHF channel 70 and providing for locating by means of a radar transponder operating in the 9 GHz band;

.2 installed in an easily accessible position;

.3 ready to be manually released and capable of being carried by one person into a survival craft;

.4 capable of floating free if the ship sinks and being automatically activated when afloat: and

.5 capable of being activated manually.

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* This requirement can be met by INMARSAT ship earth stations capable of two-way communications, such as Standard-A or Standard-C ship earth stations. Unless otherwise specified, this footnote applies to all requirements for an INMARSAT ship earth station prescribed by this chapter.

Regulation 9

Radio equipment – Sea areas A1 and A2

1. In addition to meeting the requirements of regulation 7, every ship engaged on voyages beyond sea area A1, but remaining within sea area A2, shall be provided with:

.1 an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies:

.1.1 2,187.5 kHz using DSC; and

.1.2 2,182 kHz using radiotelephony;

.2 a radio installation capable of maintaining a continuous DSC watch on the frequency 2,187.5 kHz which may be separate from, or combined with, that required by subparagraph .1.1; and

.3 means of initiating the transmission of ship-to-shore distress alerts by a radio service other than MF operating either:

.3.1 through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by regulation 7.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated; or

.3.2 on HF using DSC; or

.3.3 through the INMARSAT geostationary satellite service; this requirement may be fulfilled by:

.3.3.1 the equipment specified in paragraph 3.2; or

.3.3.2 the satellite EPIRB, required by regulation 7.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated.

2. It shall be possible to initiate transmission of distress alerts by the radio installations specified in paragraphs 1.1 and 1.3 from the position from which the ship is normally navigated.

3. The ship shall, in addition, be capable of transmitting and receiving general radiocommunications using radiotelephony or direct-printing telegraphy by either:

.1 a radio installation operating on working frequencies in the bands between 1,605 kHz and 4,000 kHz or between 4,000 kHz and 27,500 kHz. This requirement may be fulfilled by the addition of this capability in the equipment required by paragraph 1.1; or

.2 in INMARSAT ship earth station.

4. The Administration may exempt ships constructed before 1 February 1997, which are engaged exclusively on voyages within sea area A2, from the requirements of regulations 7.1.1.1 and 7.1.2 provided such ships maintain, when practicable, a continuous listen-

ing watch on VHF channel 16. This watch shall be kept at the position from which the ship is normally navigated.

Regulation 10

Radio equipment – Sea areas A1, A2 and A3

1. In addition to meeting the requirements of regulation 7, every ship engaged on voyages beyond sea areas A1 and A2, but remaining within sea area A3, shall, if it does not comply with the requirements of paragraph 2, be provided with:

.1 an INMARSAT ship earth station capable of:

.1.1 transmitting and receiving distress and safety communications using direct-printing telegraphy;

.1.2 initiating and receiving distress priority calls;

.1.3 maintaining watch for shore-to-ship distress alerts, including those directed to specifically defined geographical areas;

.1.4 transmitting and receiving general radiocommunications, using either radiotelephony or direct-printing telegraphy; and

.2 an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies:

.2.1 2,187.5 kHz using DSC; and

.2.2 2,182 kHz using radiotelephony; and

.3 a radio installation capable of maintaining a continuous DSC watch on the frequency 2,187.5 kHz which may be separate from or combined with that required by subparagraph .2.1; and

.4 means of initiating the transmission of ship-to-shore distress alerts by a radio service operating either:

.4.1 through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by regulation 7.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated; or

.4.2 on HF using DSC; or

.4.3 through the INMARSAT geostationary satellite service, by an additional ship earth station or by the satellite EPIRB required by regulation 7.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated;

2. In addition to meeting the requirements of regulation 7, every ship engaged on voyages beyond sea areas A1 and A2, but remaining within sea area A3, shall, if it does not comply with the requirements of paragraph 1, be provided with:

.1 an MF/HF radio installation capable of transmitting and receiving, for distress and safety purposes, on all distress and safety frequencies in the bands between 1,605 kHz and 4,000 kHz and between 4,000 kHz and 27,500 kHz:

.1.1 using DSC;

.1.2 using radiotelephony; and

.1.3 using direct-printing telegraphy; and

.2 equipment capable of maintaining DSC watch on 2,187.5 kHz, 8,414.5 kHz and on at least one of the distress and safety DSC frequencies 4,207.5 kHz, 6312 kHz, 12,577 kHz or 16,804.5 kHz; at any time, it shall be possible to select any of these DSC distress and safety frequencies. This equipment may be separate from, or combined with, the equipment required by subparagraph .1; and

.3 means of initiating the transmission of ship-to-shore distress alerts by a radiocommunication service other than HF operating either:

.3.1 through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by regulation 7.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated; or

.3.2 through the INMARSAT geostationary satellite service; this requirement may be fulfilled by:

.3.2.1 an INMARSAT ship earth station; or

.3.2.2 the satellite EPIRB, required by regulation 7.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated; and

.4 in addition, ships shall be capable of transmitting and receiving general radiocommunications using radiotelephony or direct-printing telegraphy by an MF/HF radio installation operating on working frequencies in the bands between 1,605 kHz and 4,000 kHz and between 4,000 kHz and 27,500 kHz. This requirement may be fulfilled by the addition of this capability in the equipment required by subparagraph .1.

3. It shall be possible to initiate transmission of distress alerts by the radio installations specified in subparagraphs 1.1, 1.2, 1.4, 2.1 and 2.3 from the position from which the ship is normally navigated.

4. The Administration may exempt ships constructed before 1 February 1997, and engaged exclusively on voyages within sea areas A2 and A3, from the requirements of regulations 7.1.1.1 and 7.1.2 provided such ships maintain, when practicable, a continuous listening watch on VHF channel 16. This watch shall be kept at the position from which the ship is normally navigated.

Regulation 11

Radio equipment – Sea areas A1, A2, A3 and A4

1. In addition to meeting the requirements of regulation 7, ships engaged on voyages in all sea areas shall be provided with the radio installations and equipment required by regulation 10.2, except that the equipment required by regulation 10.2.3.2 shall not be accepted as an alternative to that required by regulation 10.2.3.1, which shall always be provided. In addition, ships engaged on voyages in all sea areas shall comply with the requirements of regulation 10.3.

2. The Administration may exempt ships constructed before 1 February 1997, and engaged exclusively on voyages within sea areas A2, A3 and A4, from the requirements of regulations 7.1.1.1 and 7.1.2 provided such ships maintain, when practicable, a continuous listening watch on VHF channel 16. This watch shall be kept at the position from which the ship is normally navigated.

Regulation 12

Watches

1. Every ship, while at sea, shall maintain a continuous watch:
   .1 on VHF DSC channel 70, if the ship, in accordance with the requirements of regulation 7.1.2, is fitted with a VHF radio installation;
   .2 on the distress and safety DSC frequency 2,187.5 kHz, if the ship, in accordance with the requirements of regulation 9.1.2 or 10.1.3, is fitted with an MF radio installation;
   .3 on the distress and safety DSC frequencies 2,187.5 kHz and 8,414.5 kHz and also on at least one of the distress and safety DSC frequencies 4,207.5 kHz, 6,312 kHz, 12,577 kHz or 16,804.5 kHz, appropriate to the time of day and the geographical position of the ship, if the ship, in accordance with the requirements of regulation 10.2.2 or 11.1, is fitted with an MF/HF radio installation. This watch may be kept by means of a scanning receiver;
   .4 for satellite shore-to-ship distress alerts, if the ship, in accordance with the requirements of regulation 10.1.1, is fitted with an INMARSAT ship earth station.

2. Every ship, while at sea, shall maintain a radio watch for broadcasts of maritime safety information on the appropriate frequency or frequencies on which such information is broadcast for the area in which the ship is navigating.

3. Until 1 February 1999 or until such other date as may be determined by the Maritime Safety Committee, every ship while at sea

shall maintain, when practicable, a continuous listening watch on VHF channel 16. This watch shall be kept at the position from which the ship is normally navigated.

4. Until 1 February 1999 or until such other date as may be determined by the Maritime Safety Committee, every ship required to carry a radiotelephone watch receiver shall maintain, while at sea, a continuous watch on the radiotelephone distress frequency 2,182 kHz. This watch shall be kept at the position from which the ship is normally navigated.

Regulation 13

Sources of energy

1. There shall be available at all times, while the ship is at sea, a supply of electrical energy sufficient to operate the radio installations and to charge any batteries used as part of a reserve source or sources of energy for the radio installations.

2. A reserve source or sources of energy shall be provided on every ship, to supply radio installations, for the purpose of conducting distress and safety radiocommunications, in the event of failure of the ship's main and emergency sources of electrical power. The reserve source or sources of energy shall be capable of simultaneously operating the VHF radio installation required by regulation 7.1.1 and, as appropriate for the sea area or sea areas for which the ship is equipped, either the MF radio installation required by regulation 9.1.1, the MF/HF radio installation required by regulation 10.2.1 or 11.1, or the INMARSAT ship earth station required by regulation 10.1.1 and any of the additional loads mentioned in paragraphs 4, 5 and 8 for a period of at least:

.1 one hour, on ships constructed on or after 1 February 1995;

.2 one hour, on ships constructed before 1 February 1995, if the emergency source of electrical power complies fully with all relevant requirements of regulation II-1/42 or 43 including the requirements to supply the radio installations; and

.3 six hours, on ships constructed before 1 February 1995, if the emergency source of electrical power is not provided or does not comply fully with all relevant requirements of regulation II-1/42 or 43 including the requirements to supply the radio installations.*

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* For guidance, the following formula is recommended for determining the electrical load to be supplied by the reserve source of energy for each radio installation required for distress conditions: 1/2 of the current consumption necessary for transmission + the current consumption necessary for receiption + current consumption of any additional loads.

The reserve source or sources of energy need not supply independent HF and MF radio installations at the same time.

3. The reserve source or sources of energy shall be independent of the propelling power of the ship and the ship's electrical system.

4. Where, in addition to the VHF radio installation, two or more of the other radio installations, referred to in paragraph 2, can be connected to the reserve source or sources of energy, they shall be capable of simultaneously supplying, for the period specified, as appropriate, in paragraph 2.1, 2.2 or 2.3, the VHF radio installation and:

.1 all other radio installations which can be connected to the reserve source or sources of energy at the same time; or

.2 whichever of the other radio installations will consume the most power, if only one of the other radio installations can be connected to the reserve source or sources of energy at the same time as the VHF radio installation.

5. The reserve source or sources of energy may be used to supply the *electrical lighting required by regulation 6.2.4.*

6. Where a reserve source of energy consists of a rechargeable accumulator battery or batteries:

.1 a means of automatically charging such batteries shall be provided which shall be capable of recharging them to minimum capacity requirements within 10 hours; and

.2 the capacity of the battery or batteries shall be checked, using an appropriate method*, at intervals not exceeding 12 months, when the ship is not at sea.

7. The siting and installation of accumulator batteries which provide a reserve source of energy shall be such as to ensure:

.1 the highest degree of service;

.2 a reasonable lifetime;

.3 reasonable safety;

.4 that battery temperatures remain within the manufacturer's specifications whether under charge or idle; and

.5 that when fully charged, the batteries will provide at least the minimum required hours of operation under all weather conditions.

8. If an uninterrupted input of information from the ship's navigational or other equipment to a radio installation required by this

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* One method of checking the capacity of an accumulator battery is to fully discharge and recharge the battery, using normal operating current and period (e.g. 10 hours). Assessment of the charge condition can be made at any time, but it should be done without significant discharge of the battery when the ship is at sea.

chapter is needed to ensure its proper performance, means shall be provided to ensure the continuous supply of such information in the event of failure of the ship's main or emergency source of electrical power.

Regulation 14

Performance standards

1. All equipment to which this chapter applies shall be of a type approved by the Administration. Subject to paragraph 2, such equipment shall conform to appropriate performance standards not inferior to those adopted by the Organization*.

2. Equipment installed prior to the dates of application by prescribed regulation 1 may be exempted from full compliance with the appropriate performance standards at the discretion of the Adminis-

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* Reference is made to the following performance standards adopted by the Organization by the resolutions indicated or to be developed by the Organization:

.1 Narrow-band direct-printing equipment for the reception of navigational and meteorological warnings and urgent information to ships (Assembly resolution A.525(13)).

.2 General requirements for shipborne radio equipment forming part of the future global maritime distress and safety system (Assembly resolution A.569(14)).

.3 Ship earth stations capable of two-way communications (Assembly resolution A.608(15)).

.4 VHF radio installations capable of voice communications and digital selective calling (Assembly resolution A.609(15)).

.5 Shipborne MF radio installations capable of voice communications and digital selective calling (Assembly resolution A.610(15)).

.6 Shipborne MF/HF radio installations capable of voice communication, narrow-band direct-printing and digital selective calling (Assembly resolution A.613(15)).

.7 Float-free satellite emergency position-indicating radio beacons operating on 406 MHz (Assembly resolution A.611(15)).

.8 Survival craft radar transponder for use in search and rescue operations (Assembly resolution A.604(15)).

.9 Float-free VHF emergency position-indicating radio beacons (Assembly resolution A.612(15)).

.10 INMARSAT Standard-C ship earth stations capable of transmitting and receiving direct-printing communications (MSC 55/25, annex 4).

.11 Enhanced group call equipment (MSC 55/25, annex 5).

.12 Float-free satellite emergency position-indicating radio beacons operating through the geostationary INMARSAT satellite system on 1.6 GHz (MSC 55/25, annex 7).

.13 Float-free release and activation arrangements for emergency radio equipment (MSC 55/25, annex 6).

tration, provided that the equipment is compatible with equipment complying with the performance standards, having due regard to the criteria which the Organization may adopt in connection with such standards.

Regulation 15

Maintenance requirements

1. Equipment shall be so designed that the main units can be replaced readily, without elaborate recalibration or readjustment.

2. Where applicable, equipment shall be so constructed and installed that it is readily accessible for inspection and on-board maintenance purposes.

3. Adequate information shall be provided to enable the equipment to be properly operated and maintained, taking into account the recommendations of the Organization*.

4. Adequate tools and spares shall be provided to enable the equipment to be maintained.

5. The Administration shall ensure that radio equipment required by this chapter is maintained to provide the availability of the functional requirements specified in regulation 4 and to meet the recommended performance standards of such equipment.

6. On ships engaged on voyages in sea areas A1 and A2, the availability shall be ensured by using such methods as duplication of equipment, shore-based maintenance or at-sea electronic maintenance capability, or a combination of these, as may be approved by the Administration.

7. On ships engaged on voyages in sea areas A3 and A4, the availability shall be ensured by using a combination of at least two methods such as duplication of equipment, shore-based maintenance or at-sea electronic maintenance capability, as may be approved by the Administration, taking into account the recommendations of the Organization.

8. While all reasonable steps shall be taken to maintain the equipment in efficient working order to ensure compliance with all the functional requirements specified in regulation 4, malfunction of the equipment for providing the general radiocommunications required by regulation 4.8 shall not be considered as making a ship unsea-

* Reference is made to the recommendation on general requirements for shipborne radio equipment forming part of the future global maritime distress and safety system (resolution A.569 (14)).

worthy or as a reason for delaying the ship in ports where repair facilities are not readily available, provided the ship is capable of performing all distress and safety functions.

Regulation 16

Radio personnel

Every ship shall carry personnel qualified for distress and safety radiocommunication purposes to the satisfaction of the Administra tion. The personnel shall be holders of certificates specified in the Radio Regulations as appropriate, any one of whom shall be designated to have primary responsibility for radiocommunications during distress incidents.

Regulation 17

Radio records

A record shall be kept, to the satisfaction of the Administration and as required by the Radio Regulations, of all incidents connected with the radiocommunication service which appear to be of importance to safety of life at sea."

CHAPTER V

SAFETY OF NAVIGATION

Regulation 12

Shipborne navigational equipment

The existing text of paragraph (g) is replaced by:
"g) Ships of 500 tons gross tonnage and upwards constructed on or after 1 September 1984 and ships of 1,600 tons gross tonnage and upwards constructed before 1 September 1984 shall be fitted with a radar installation. From 1 February 1995, the radar installation shall be capable of operating in the 9 GHz frequency band. In addition, after 1 February 1995, passenger ships irrespective of size and cargo ships of 300 tons gross tonnage and upwards when engaged on international voyages, shall be fitted with a radar installation capable of operating in the 9 GHz frequency band. Passenger ships of less than 500 tons gross tonnage and cargo ships of 300 tons gross tonnage and upwards but less than 500 tons gross tonnage may be exempted from compliance with the requirements of paragraph (r) at the discretion of the Administration, provided that the equipment is fully compatible with the radar transponder for search and rescue."

The existing text of paragraph (h) is replaced by:

"h) Ships of 10,000 tons gross tonnage and upwards shall be fitted with two radar installations, each capable of being operated independently of the other. From 1 February 1995, at least one of the radar installations shall be capable of operating in the 9 GHz frequency band."

The existing text of paragraph (p) is replaced by:

"p) When engaged on international voyages, ships of 1,600 tons gross tonnage and upwards shall be fitted with a radio direction-finding apparatus. The Administration may exempt a ship from this requirement if it considers it unreasonable or unnecessary for such apparatus to be carried or if the ship is provided with other radionavigation equipment suitable for use throughout its intended voyages."

The existing text of paragraph (q) is replaced by:

"q) Until 1 February 1999, ships of 1,600 tons gross tonnage and upwards constructed on or after 25 May 1980 and before 1 February 1995, when engaged on international voyages, shall be fitted with radio equipment for homing on the radiotelephone distress frequency."

Regulation 14

Aids to navigation

The existing text is replaced by:

"The Contracting Governments undertake to arrange for the establishment and maintenance of such aids to navigation as, in their opinion, the volume of traffic justifies and the degree of risk requires, and to arrange for information relating to these aids to be made available to all concerned."

Regulation 21

International Code of Signals

The existing text of regulation 21 is replaced by:

"All ships which, in accordance with the present Convention, are required to carry radio installations shall carry the International Code of Signals. This publication shall also be carried by any other ship which, in the opinion of the Administration, has a need to use it."

APPENDIX

The existing forms of the Passenger Ship Safety Certificate, Cargo Ship Safety Construction Certificate, Cargo Ship Safety Equipment Certificate, Cargo Ship Safety Radiotelegraphy Certificate and Cargo Ship Safety Radiotelephony Certificate and Exemption Certificate are replaced by the following:

"Form of Safety Certificate for Passenger Ships

PASSENGER SHIP SAFETY CERTIFICATE

This Certificate shall be supplemented by a Record of Equipment (Form P)

(Official seal) (State)

for $\frac{\text{an}}{\text{a short}}$[1]) international voyage

Issued under the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended

under the authority of the Government of

____
(name of the State)

by ______________________________
(person or organization authorized)

Particulars of ships [2])

Name of ship ....
Distinctive number or letters ....
Port of registry ....
Gross tonnage ....
Sea areas in which ship is
certified to operate (regulation IV/2) ....
IMO Number[3]) ....

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[1]) Delete as appropriate.

[2]) Alternatively, the particulars of the ship may be placed horizontally in boxes.

[3]) In accordance with resolution A.600(15) – IMO Ship Identification Number Scheme, this information may be included voluntarily.

Date on which keel was laid or ship was at a similar stage of construction or, where applicable, date on which work for a conversion or an alternation or modification of a major character was commenced ....

This is to certify:

1. That the ship has been surveyed in accordance with the requirements of regulation I/7 of the Convention.

2. That the survey showed that:

2.1 the ship complied with the requirements of the Convention as regards:

.1 the structure, main and auxiliary machinery, boilers and other pressure vessels;

.2 the watertight subdivision arrangements and details;

.3 the following subdivision load lines:

Subdivision load lines assigned and marked on the ship's side at amidships (regulation II-1/13)	Freeboard	To apply when the spaces in which passengers are carried include the following alternative spaces
C.1	....	....
C.2	....	....
C.3	....	....

2.2 the ship complied with the requirements of the Convention as regards structural fire protection, fire safety systems and appliances and fire control plans;

2.3 the life-saving appliances and the equipment of the lifeboats, liferafts and rescue boats were provided in accordance with the requirements of the Convention;

2.4 the ship was provided with a line-throwing appliance and radio installations used in life-saving appliances in accordance with the requirements of the Convention;

2.5 the ship complied with the requirements of the Convention as regards radio installations;

2.6 the functioning of the radio installations used in life-saving appliances complied with the requirements of the Convention;

2.7 the ship complied with the requirements of the Convention as regards shipborne navigational equipment, means of embarkation for pilots and nautical publications;

2.8 the ship was provided with lights, shapes, means of making sound signals and distress signals, in accordance with the requirements of the Convention and the International Regulations for Preventing Collisions at Sea in force;

2.9 in all other respects the ship complied with the relevant requirements of the Convention.

3. That an Exemption Certificate has/has not[1]) been issued.

This certificate is valid until ....

Issued at ....

(Place of issue of certificate)

....

(Date of issue) (Signature of authorized official issuing the certificate)

(Seal or stamp of the issuing authority, as appropriate)

Form of Safety Construction Certificate for Cargo Ships

CARGO SHIP SAFETY CONSTRUCTION CERTIFICATE

(Official seal) (State)

Issued under the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended

under the authority of the Government of

____

(name of the State)

by ____

(person or organization authorized)

Particulars of ship[2])

Name of ship ....
Distinctive number or letters ....
Port of registry ....
Gross tonnage ....
Deadweight of ship (metric tons)[3]) ....
IMO Number[4]) ....

---

[1]) Delete as appropriate.

[2]) Alternatively, the particulars of the ship may be placed horizontally in boxes.

[3]) For oil tankers, chemical tankers and gas carriers only.

[4]) In accordance with resolution A.600(15) – IMO Ship Identification Number Scheme, this information may be included voluntarily.

Type of ship[1])

Oil tanker
Chemical tanker
Gas carrier
Cargo ship other than any of the above

Date on which keel was laid or ship was at a similar stage of construction or, where applicable, date on which work for a conversion or an alteration or modification of a major character was commenced..

This is to certify:

1. That the ship has been surveyed in accordance with the requirements of regulation I/10 of the Convention.

2. That the survey showed that the condition of the structure, machinery and equipment as defined in the above regulation was satisfactory and the ship complied with the relevant requirements of chapters II-1 and II-2 of the Convention (other than those relating to fire safety systems and appliances and fire control plans).

3. That an Exemption Certificate has/has not[1]) been issued.

This certificate is valid until..

Issued at..
(Place of issue of certificate)

....
(Date of issue) (Signature of authorized official issuing the certificate)

(Seal or stamp of the issuing authority, as appropriate)

Form of Safety Equipment Certificate for Cargo Ships

CARGO SHIP SAFETY EQUIPMENT CERTIFICATE

This Certificate shall be supplemented by a Record of Equipment (Form E)

(Official seal) (State)

Issued under the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended

under the authority of the Government of

____
(name of the State)

[1]) Delete as appropriate.

by ______________________________
(person or organization authorized)

Particulars of ship[1])

Name of ship ....
Distinctive number or letters ....
Port of registry...
Gross tonnage ....
Deadweight of ship (metric tons)[2]) ....
Length of ship (regulation III/3.10) ....
IMO Number[3])..

Type of ship[4])

Oil tanker
Chemical tanker
Gas carrier
Cargo ship other than any of the above

Date on which keel was laid or ship was at a similar stage of construction or, where applicable, date on which work for a conversion or an alteration or modification of a major character was commenced...

This is to certify:

1. That the ship has been surveyed in accordance with the requirements of regulation I/8 of the Convention.

2. That the survey showed that:
2.1 the ship complied with the requirements of the Convention as regards fire safety systems and appliances and fire control plans;
2.2 the life-saving appliances and the equipment of the lifeboats, liferafts and rescue boats were provided in accordance with the requirements of the Convention;
2.3 the ship was provided with a line-throwing appliance and radio installations used in life-saving appliances in accordance with the requirements of the Convention;

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[1]) Alternatively, the particulars of the ship may be placed in boxes.

[2]) For oil tankers, chemical tankers and gas carriers only.

[3]) In accordance with resolution A.600(15) - IMO Ship Identification Number Scheme, this information may be included voluntarily.

[4]) Delete as appropriate.

2.4 the ship complied with the requirements of the Convention as regards shipborne navigational equipment, means of embarkation for pilots and nautical publications;
2.5 the ship was provided with lights, shapes, means of making sound signals and distress signals, in accordance with the requirements of the Convention and the International Regulations for Preventing Collisions at Sea in force;
2.6 in all other respects the ship complied with the relevant requirements of the Convention.

3. That the ship operates in accordance with regulation III/26.1.1.1 within the limits of the trade area ....

4. That an Exemption Certificate has/has not[1]) been issued.

This certificate is valid until ....

Issued at ....
(Place of issue of certificate)

....
(Date of issue)

....
(Signature of authorized official issuing the certificate)

(Seal or stamp of the issuing authority, as appropriate)

Form of Safety Radio Certificate for Cargo Ships

CARGO SHIP SAFETY RADIO CERTIFICATE

This Certificate shall be supplemented by a Record of Equipment of Radio Facilities (Form R)

(Official seal) (State)

Issued under the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended

under the authority of the Government of

____
(name of the State)

by ______________________________
(person or organization authorized)

---

[1]) Delete as appropriate.

Particulars of ship[1])

Name of ship ....
Distinctive number or letters ....
Port of registry ....
Gross tonnage ....
Sea areas in which ship is
certified to operate (regulation IV/2) ....
IMO Number[2]) ....

Date on which keel was laid or ship was at a similar stage of construction or, where applicable, date on which work for a conversion or an alteration or modification of a major character was commenced ....

This is to certify:

1. That the ship has been surveyed in accordance with the requirements of regulation I/9 of the Convention.

2. That the survey showed that:

2.1 the ship complied with the requirements of the Convention as regards radio installations;

2.2 the functioning of the radio installations used in life-saving appliances complied with the requirements of the Convention.

3. That an Exemption Certificate has/has not[3]) been issued.

This certificate is valid until ....

Issued at ....
(Place of issue of certificate)

....
(Date of issue) (Signature of authorized official issuing the certificate)

(Seal or stamp of the issuing authority, as appropriate)

---

[1]) Alternatively, the particulars of the ship may be placed horizontally in boxes.

[2]) In accordance with resolution A.600(15) – IMO Ship Identification Number Scheme, this information may be included voluntarily.

[3]) Delete as appropriate.

Form of Exemption Certificate

EXEMPTION CERTIFICATE

(Official seal) (State)

Issued under the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended

under the authority of the Government of

____

(name of the State)

by ____

(person or organization authorized)

Particulars of ship[1])

Name of ship ....
Distinctive number or letters ....
Port of registry ....
Gross tonnage ....
IMO Number[2]) ....

This is to certify:

That the ship is, under the authority conferred by regulation ...... of the Convention, exempted from the requirements of ....of the Convention.

Conditions, if any, on which the Exemption Certificate is granted:
....
....
....Voyages, if any, for which the Exemption Certificate is granted:
....

This certificate is valid until .... subject to the ....Certificate, to which this certificate is attached, remaining valid.

[1]) Alternatively the particulars of the ship may be placed horizontally in boxes.

[2]) In accordance with resolution A.600(15) – IMO Ship Identification Number Scheme, this information may be included voluntarily."

Issued at ....
(Place of issue of certificate)

.... (Date of issue)

.... (Signature of authorized official issuing the certificate)

Uitgegeven de *achttiende* november 1992.

De Minister van Buitenlandse Zaken,

H. VAN DEN BROEK

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