Government of Canada
Department of Communications

Gouvernement du Canada
Ministère des Communications

Table of frequency allocations

Canada

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Table of frequency allocations 9 kHz to 275 GHz

Telecommunications Policy Branch
March 1986

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FOREWORD

This Canadian Table of Frequency Allocations allocates the electromagnetic spectrum between 9kHz and 275 GHz (275-400 GHz is unallocated at this time) and is based on the provisions of the Final Acts resulting from the World Administrative Radio Conference, Geneva 1979, convened by the International Telecommunication Union (ITU). The Table is intended to respond to Canadian domestic spectrum requirements and it consequently reflects the Department of Communications' spectrum utilization policies developed through public consultation procedures. It will be noted, therefore, that the Canadian Table differs, where necessary, from the ITU Table.

Portions of this Table and the associated general information will, from time to time, need to be revised. Such revisions will of necessity occur when changes to the ITU Table are made as a result of either a World Administrative Radio Conference (WARC) or a Regional Administrative Radio Conference (RARC) convened by the International Telecommunication Union. In such cases, the Canadian Table of Frequency Allocations will also be revised to reflect these international changes and to take into account Canadian requirements. Instructions as to how to obtain the latest revisions and hence maintain the Canadian Table up-to-date are given elsewhere in this document.

Information of a general nature is contained in the latter part of this book. This information is primarily of a non-operational, unchanging nature. Information concerning sub-allocations within a given allocation, technical regulations and operational regulations can best be obtained by contacting the Department's Regional or District Offices.

FUTURE REVISIONS

As has been noted, revisions to this book will be necessary from time to time. Such revisions will be notified to interested parties through announcements in the Canada Gazette and via the media as appropriate. Copies of the revisions themselves will be available from the Department of Supply and Services and its authorized outlets.

In Ottawa, requests for copies of revisions should be addressed to:
The Canadian Government Publishing Centre
Department of Supply & Services
45, Sacre Coeur Blvd.,
Hull, Quebec
K1A 0S9

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DEFINITIONS

The following is a list of those terms and definitions which are relevant to a consideration of the Canadian Table of Frequency Allocations. These terms and definitions are extracted from the International Radio Regulations of the International Telecommunication Union. The regulations should be consulted for a more comprehensive listing.

General Terms

- Administration: Any governmental department or service responsible for discharging the obligations undertaken in the Convention of the International Telecommunication Union and the Regulations.

- Telecommunication: Any transmission, emission or reception of signs, signals, writing, images and sounds or intelligence of any nature by wire, radio, optical or other electromagnetic systems.

- Radio: A general term applied to the use of radio waves.

- Radio Waves or Hertzian Waves: Electromagnetic waves of frequencies arbitrarily lower than 3 000 GHz, propagated in space without artificial guide.

- Radiocommunication: Telecommunication by means of radio waves.

- Terrestrial Radiocommunication: Any radiocommunication other than space radiocommunication or radio astronomy.

- Space Radiocommunication: Any radiocommunication involving the use of one or more space stations or the use of one or more reflecting satellites or other objects in space.

- Radiodetermination: The determination of the position, velocity and/or other characteristics of an object, or the obtaining of information relating to those parameters, by means of the propagation properties of radio waves.

- Radionavigation: Radiodetermination used for the purposes of navigation, including obstruction warning.

- Radiolocation: Radiodetermination used for purposes other than those of radionavigation.

- Radio Direction-Finding: Radiodetermination using the reception of radio waves for the purpose of determining the direction of a station or object.

- Radio Astronomy: Astronomy based on the reception of radio waves of cosmic origin.

- Coordinated Universal Time (UTC): Time scale, based on the second (SI), as defined and recommended by the CCIR, and maintained by the Bureau International de l'Heure (BIH).

For most practical purposes associated with the Radio Regulations, UTC is equivalent to mean solar time at the prime meridian (0° longitude), formerly expressed in GMT.

- Industrial, Scientific and Medical (ISM) Applications: Operation of equipment or appliances designed to generate and use locally radiofrequency energy for industrial, scientific, medical, domestic or similar purposes, excluding applications in the field of telecommunications.

Radio Services

- Radiocommunication Service: A service as defined in this Section involving the transmission, emission and/or reception of radio waves for specific telecommunication purposes.

In these regulations, unless otherwise stated, any radiocommunication service relates to terrestrial radiocommunication.

- Fixed Service: A radiocommunication service between specified fixed points.

- Fixed-Satellite Service: A radiocommunication service between earth stations at specified fixed points when one or more satellites are used; in some cases this service includes satellite-to-satellite links, which may also be effected in the inter-satellite service: the fixed-satellite service may also include feeder links for other space radiocommunication services.

- Aeronautical Fixed Service: A radiocommunication service between specified fixed points provided primarily for the safety of air navigation and for the regular, efficient and economical operation of air transport.

- Inter-Satellite Service: A radiocommunication service providing links between artificial earth satellites.

- Space Operation Service: A radiocommunication service concerned exclusively with the operation of spacecraft, in particular space tracking, space telemetry and space telecommand.

These functions will normally be provided within the service in which the space station is operating.

- Mobile Service: A radiocommunication service between mobile and land stations, or between mobile stations.

- Mobile-Satellite Service: A radiocommunication service:
  — between mobile earth stations and one or more space stations, or between space stations used by this service; or
  — between mobile earth stations by means of one or more space stations.

This service may also include feeder links necessary for its operation.

- Land Mobile Service: A mobile service between base stations and land mobile stations or between land mobile stations.

- Land Mobile-Satellite Service: A mobile-satellite service in which mobile earth stations are located on land.

- Maritime Mobile Service: A mobile service between coast stations and ship stations, or between ship stations, or between associated on-board communication stations; survival craft stations and emergency position-indicating radiobeacon stations may also participate in this service.

- Maritime Mobile-Satellite Service: A mobile-satellite service in which mobile earth stations are located on board ships; survival craft stations and emergency position-indicating radiobeacon stations may also participate in this service.

- Aeronautical Mobile Service: A mobile service between aeronautical stations, and aircraft stations, or between aircraft stations, in which survival craft stations may participate; emergency position-indicating radiobeacon stations may also participate in this service on designated distress and emergency frequencies.

- Aeronautical Mobile-Satellite Service: A mobile-satellite service in which mobile earth stations are located on board aircraft; survival craft stations and emergency position-indicating radiobeacon stations may also participate in this service.

- Broadcasting Service: A radiocommunication service in which the transmissions are intended for direct reception by the general public. This service may include sound transmissions, television transmissions or other types of transmission.

- Broadcasting-Satellite Service: A radiocommunication service in which signals transmitted or retransmitted by space stations are intended for direct reception by the general public.

- Radiodetermination Service: A radiocommunication service for the purpose of radiodetermination.

- Radiodetermination-Satellite Service: A radiocommunication service for the purpose of radiocommunication involving the use of one or more space stations.

- Radionavigation Service: A radiodetermination service for the purpose of radionavigation.

- Radionavigation-Satellite Service: A radiodetermination-satellite service used for the purpose of radionavigation.

This service may also include feeder links necessary for its operation.

- Maritime Radionavigation Service: A radionavigation service intended for the benefit and for the safe operation of ships.

- Maritime Radionavigation-Satellite Service: A radionavigation-satellite service in which earth stations are located on board ships.

- Aeronautical Radionavigation Service: A radionavigation service intended for the benefit and for the safe operation of aircraft.

- Aeronautical Radionavigation-Satellite Service: A radionavigation-satellite service in which earth stations are located on board aircraft.

- Radiolocation Service: A radiodetermination service for the purpose of radiolocation.

- Meteorological Aids Service: A radiocommunication service used for meteorological, including hydrological, observations and exploration.

- Earth Exploration-Satellite Service: A radiocommunication service between earth stations and one or more space stations, which may include links between space stations, in which:
  - — information relating to the characteristics of the Earth and its natural phenomena is obtained from active sensors or passive sensors on earth satellites;
  - — similar information is collected from air-borne or earth-based platforms;
  - — such information may be distributed to earth stations within the system concerned;
  - — platform interrogation may be included.

This service may also include feeder links necessary for its operation.

- Meteorological-Satellite Service: An earth exploration-satellite service for meteorological purposes.

- Standard Frequency and Time Signal Service: A radiocommunication service for scientific, technical and other purposes, providing the transmission of specified frequencies, time signals, or both, of stated high precision, intended for general reception.

- Standard Frequency and Time Signal-Satellite Service: A radiocommunication service using space stations on earth satellites for the same purpose as those of standard frequency and time signal service.

This service may also include feeder links necessary for its operation.

- Space Research Service: A radiocommunication service in which spacecraft or other objects in space are used for scientific or technological research purposes.

- Amateur Service: A radiocommunication service for the purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest.

- Amateur-Satellite Service: a radiocommunication service using space stations on earth satellites for the same purpose as those of amateur service.

- Radio Astronomy Service: A service involving the use of radio astronomy.

- Safety Service: Any radiocommunication service used permanently or temporarily for the safeguarding of human life and property.

Categories of Services

Primary, Permitted and Secondary Services

- Where, in this Table, a band is indicated as allocated to more than one service, either on a worldwide or Regional basis, such services are listed in the following order:

a) services the names of which are printed in "capitals" (example: FIXED); these are called "primary" services;
b) services the names of which are printed in "capitals between oblique strokes" (example: /RADIOLOCATION/); these are called "permitted" services;
c) services the names of which are printed in "normal characters" (example: Mobile); these are called "secondary" services.

- Additional remarks are printed in normal characters (example: MOBILE except aeronautical mobile).

- Permitted and primary services have equal rights, except that, in the preparation of frequency plans, the primary service, as compared with the permitted service, shall have prior choice of frequencies.

- Stations of a secondary service:

a) shall not cause harmful interference to stations of primary or permitted services to which frequencies are already assigned or to which frequencies may be assigned at a later date;
b) cannot claim protection from harmful interference from stations of a primary or permitted service to which frequencies are already assigned or may be assigned at a later date;
c) can claim protection, however, from harmful interference from stations of the same or other secondary service(s) to which frequencies may be assigned at a later date.

- The heading of the international portion of this Table includes three columns, each of which corresponds to one of the ITU Regions. Where an allocation occupies the whole of the width of the ITU Table or only one or two of the three columns, this is a worldwide allocation or a Regional allocation, respectively.

- The frequency band referred to in each allocation is indicated in the left-hand top corner of the part of the box of the Table concerned.

- The footnote references which appear in the Table below the allocated service or services apply to the whole of the allocation concerned.

- The footnote references which appear to the right of the name of a service are applicable only to that particular service.

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6 685–6 765	AERONAUTICAL MOBILE (OR) C5

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
6 765–7 000	FIXED Land Mobile 525	
	524	
7 000–7 100	AMATEUR 510 AMATEUR-SATELLITE	
	526 527	
7 100–7 300 BROADCASTING	7 100–7 300 AMATEUR 510	7 100–7 300 BROADCASTING
	528	

6 765–7 000	FIXED Land Mobile 524
7 000–7 100	AMATEUR 510 AMATEUR-SATELLITE
7 100–7 300	AMATEUR 510 528

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
7 300–8 100	FIXED Land Mobile 529	
8 100–8 195	FIXED MARITIME MOBILE	
8 195–8 815	MARITIME MOBILE 500A 500B 529A 501	
8 815–8 965	AERONAUTICAL MOBILE (R)	
8 965–9 040	AERONAUTICAL MOBILE (OR)	
9 040–9 500	FIXED	
9 500–9 900	BROADCASTING 530 531	
9 900–9 995	FIXED	

7 300–8 100	FIXED Land Mobile
8 100–8 195	FIXED MARITIME MOBILE
8 195–8 815	MARITIME MOBILE 500A 500B 529A 501
8 815–8 965	AERONAUTICAL MOBILE (R)
8 965–9 040	AERONAUTICAL MOBILE (OR) C5
9 040–9 500	FIXED
9 500–9 900	BROADCASTING 531
9 900–9 995	FIXED

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
9 995–10 003	STANDARD FREQUENCY AND TIME SIGNAL (10 000 kHz) 501	
10 003–10 005	STANDARD FREQUENCY AND TIME SIGNAL Space Research 501	
10 005–10 100	AERONAUTICAL MOBILE (R) 501	
10 100–10 150	FIXED Amateur 510	
10 150–11 175	FIXED Mobile except aeronautical mobile (R)	
11 175–11 275	AERONAUTICAL MOBILE (OR)	
11 275–11 400	AERONAUTICAL MOBILE (R)	
11 400–11 650	FIXED	
11 650–12 050	BROADCASTING 530 531	
12 050–12 230	FIXED	
12 230–13 200	MARITIME MOBILE 500A 500B 529A 532	

9 995–10 003	STANDARD FREQUENCY AND TIME SIGNAL (10 000 kHz) 501
10 003–10 005	STANDARD FREQUENCY AND TIME SIGNAL Space Research 501
10 005–10 100	AERONAUTICAL MOBILE (R) 501
10 100–10 150	AMATEUR 510 C6
10 150–11 175	FIXED Mobile except aeronautical mobile (R)
11 175–11 275	AERONAUTICAL MOBILE (OR) C5
11 275–11 400	AERONAUTICAL MOBILE (R)
11 400–11 650	FIXED
11 650–12 050	BROADCASTING 531
12 050–12 230	FIXED
12 230–13 200	MARITIME MOBILE 500A 500B 529A 532

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
13 200–13 260	AERONAUTICAL MOBILE (OR)	
13 260–13 360	AERONAUTICAL MOBILE (R)	
13 360–13 410	FIXED RADIO ASTRONOMY 533	
13 410–13 600	FIXED Mobile except aeronautical mobile (R) 534	
13 600–13 800	BROADCASTING 531	
13 800–14 000	FIXED Mobile except aeronautical mobile (R)	
14 000–14 250	AMATEUR 510 AMATEUR-SATELLITE	
14 250–14 350	AMATEUR 510 535	
14 350–14 990	FIXED Mobile except aeronautical mobile (R)	

13 200–13 260	AERONAUTICAL MOBILE (OR) C5
13 260–13 360	AERONAUTICAL MOBILE (R) 533
13 360–13 410	FIXED RADIO ASTRONOMY 533
13 410–13 600	FIXED MOBILE except aeronautical mobile (R) 534
13 600–13 800	BROADCASTING 531
13 800–14 000	FIXED Mobile except aeronautical mobile (R)
14 000–14 250	AMATEUR 510 AMATEUR-SATELLITE
14 250–14 350	AMATEUR 510
14 350–14 990	FIXED Mobile except aeronautical mobile (R)

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
14 990–15 005	STANDARD FREQUENCY AND TIME SIGNAL (15 000 kHz) 501	
15 005–15 010	STANDARD FREQUENCY AND TIME SIGNAL Space Research	
15 010–15 100	AERONAUTICAL MOBILE (OR)	
15 100–15 600	BROADCASTING 531	
15 600–16 360	FIXED 536	
16 360–17 410	MARITIME MOBILE 500A 500B 529A 532	
17 410–17 550	FIXED	
17 550–17 900	BROADCASTING 531	
17 900–17 970	AERONAUTICAL MOBILE (R)	
17 970–18 030	AERONAUTICAL MOBILE (OR)	

CANADIAN ALLOCATION TABLE

14 990–15 005	STANDARD FREQUENCY AND TIME SIGNAL (15 000 kHz) 501
15 005–15 010	STANDARD FREQUENCY AND TIME SIGNAL Space Research
15 010–15 100	AERONAUTICAL MOBILE (OR) C5
15 100–15 600	BROADCASTING 531
15 600–16 360	FIXED 536
16 360–17 410	MARITIME MOBILE 500A 500B 529A 532
17 410–17 550	FIXED
17 550–17 900	BROADCASTING 531
17 900–17 970	AERONAUTICAL MOBILE (R)
17 970–18 030	AERONAUTICAL MOBILE (OR) C5

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
18 030–18 052	FIXED	
18 052–18 068	FIXED Space Research	
18 068–18 168	AMATEUR 510 AMATEUR-SATELLITE 537 538	
18 168–18 780	FIXED	
18 780–18 900	MARITIME MOBILE 532	
18 900–19 680	FIXED	
19 680–19 800	MARITIME MOBILE 532	
19 800–19 990	FIXED	

18 030–18 052	FIXED
18 052–18 068	FIXED Space Research
18 068–18 168	AMATEUR 510 AMATEUR-SATELLITE 537
18 168–18 780	FIXED
18 780–18 900	MARITIME MOBILE 532
18 900–19 680	FIXED
19 680–19 800	MARITIME MOBILE 532
19 800–19 990	FIXED

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
19 990–19 995	STANDARD FREQUENCY AND TIME SIGNAL Space Research 501	
19 995–20 010	STANDARD FREQUENCY AND TIME SIGNAL (20 000 kHz) 501	
20 010–21 000	FIXED Mobile	
21 000–21 450	AMATEUR 510 AMATEUR-SATELLITE	
21 450–21 850	BROADCASTING 531	
21 850–21 870	FIXED 539	
21 870–21 924	AERONAUTICAL FIXED	
21 924–22 000	AERONAUTICAL MOBILE (R)	
22 000–22 855	MARITIME MOBILE 532 540	
22 855–23 000	FIXED 540	
23 000–23 200	FIXED Mobile except aeronautical mobile 540	
23 200–23 350	AERONAUTICAL FIXED AERONAUTICAL MOBILE (OR)	

CANADIAN ALLOCATION TABLE

19 990–19 995	STANDARD FREQUENCY AND TIME SIGNAL Space Research 501
19 995–20 010	STANDARD FREQUENCY AND TIME SIGNAL (20 000 kHz) 501
20 010–21 000	FIXED Mobile
21 000–21 450	AMATEUR 510 AMATEUR-SATELLITE
21 450–21 850	BROADCASTING 531
21 850–21 870	FIXED
21 870–21 924	AERONAUTICAL FIXED
21 924–22 000	AERONAUTICAL MOBILE (R)
22 000–22 855	MARITIME MOBILE 532
22 855–23 000	FIXED
23 000–23 200	FIXED Mobile except aeronautical mobile (R)
23 200–23 350	AERONAUTICAL FIXED AERONAUTICAL MOBILE (OR) C5

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
23 350–24 000	FIXED MOBILE except aeronautical mobile 541 542	
24 000–24 890	FIXED LAND MOBILE 542	
24 890–24 990	AMATEUR 510 AMATEUR-SATELLITE 542 543	
24 990–25 005	STANDARD FREQUENCY AND TIME SIGNAL (25 000 kHz)	
25 005–25 010	STANDARD FREQUENCY AND TIME SIGNAL Space Research	
25 010–25 070	FIXED MOBILE except aeronautical mobile	

23 350–24 000	FIXED MOBILE except aeronautical mobile 541
24 000–24 890	FIXED LAND MOBILE
24 890–24 990	AMATEUR 510 AMATEUR-SATELLITE 543
24 990–25 005	STANDARD FREQUENCY AND TIME SIGNAL (25 000 kHz)
25 005–25 010	STANDARD FREQUENCY AND TIME SIGNAL Space Research
25 010–25 070	FIXED MOBILE except aeronautical mobile

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
25 070–25 210	MARITIME MOBILE 544	
25 210–25 550	FIXED MOBILE except aeronautical mobile	
25 550–25 670	RADIO ASTRONOMY 545	
25 670–26 100	BROADCASTING	
26 100–26 175	MARITIME MOBILE 544	
26 175–27 500	FIXED MOBILE except aeronautical mobile 546	

CANADIAN ALLOCATION TABLE

25 070–25 210	MARITIME MOBILE 544
25 210–25 550	FIXED MOBILE except aeronautical mobile
25 550–25 670	RADIO ASTRONOMY 545
25 670–26 100	BROADCASTING
26 100–26 175	MARITIME MOBILE 544
26 175–27 500	FIXED MOBILE except aeronautical mobile 546

MHz

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
27.5–28	METEOROLOGICAL AIDS FIXED MOBILE	
28–29.7	AMATEUR AMATEUR-SATELLITE	
29.7–30.005	FIXED MOBILE	
30.005–30.01	SPACE OPERATION (satellite identification) FIXED MOBILE SPACE RESEARCH	
30.01–37.5	FIXED MOBILE	
37.5–38.25	FIXED MOBILE Radio Astronomy 547	

27.5–28	MOBILE Fixed
28–29.7	AMATEUR AMATEUR-SATELLITE
29.7–30.005	MOBILE Fixed
30.005–30.01	MOBILE SPACE RESEARCH Fixed
30.01–37.5	MOBILE Fixed
37.5–38.25	MOBILE Fixed Radio Astronomy 547

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
38.25–39.986	FIXED MOBILE	
39.986–40.02	FIXED MOBILE Space Research	
40.02–40.98	FIXED MOBILE 548	
40.98–41.015	FIXED MOBILE Space Research 549 550 551	
41.015–44	FIXED MOBILE 549 550 551	
44–47	FIXED MOBILE 551 552	

38.25–39.986	MOBILE Fixed
39.986–40.02	MOBILE Fixed Space Research
40.02–40.98	MOBILE Fixed 548
40.98–41.015	MOBILE Fixed Space Research
41.015–47	MOBILE Fixed

MHz

ITU ALLOCATION TO SERVICES

<table>
<tr><th>Region 1</th><th>Region 2</th><th>Region 3</th></tr>
<tr><td rowspan="3">47–68
BROADCASTING

553 554 555 559 561</td><td>47–50
FIXED
MOBILE</td><td>47–50
FIXED
MOBILE
BROADCASTING</td></tr>
<tr><td colspan="2">50–54
AMATEUR

556 557 558 560</td></tr>
<tr><td>54–68
BROADCASTING
Fixed
Mobile

562</td><td>54–68
FIXED
MOBILE
BROADCASTING</td></tr>
</table>

MHz

CANADIAN ALLOCATION TABLE

47–50
MOBILE Fixed
50–54
AMATEUR
54–68
BROADCASTING

MHz

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
68–74.8 FIXED MOBILE except aeronautical mobile	68–72 BROADCASTING Fixed Mobile	68–74.8 FIXED MOBILE
	563	
	72–73 FIXED MOBILE	
	73–74.6 RADIO ASTRONOMY	
	569 570	
564 565 567 568 571 572	74.6–74.8 FIXED MOBILE 572	566 568 571 572
74.8–75.2	AERONAUTICAL RADIONAVIGATION 572	

68–72
BROADCASTING
72–73
FIXED MOBILE
73–74.6
RADIO ASTRONOMY 569
74.6–74.8
FIXED MOBILE 572
74.8–75.2
AERONAUTICAL RADIONAVIGATION 572

ITU ALLOCATION TO SERVICES

<table>
<tr><th>Region 1</th><th>Region 2</th><th>Region 3</th></tr>
<tr><td rowspan="2">75.2–87.5
FIXED
MOBILE except
aeronautical mobile

565 571 572 575 578</td><td colspan="2">75.2–75.4
FIXED
MOBILE

571 572</td></tr>
<tr><td>75.4–76
FIXED
MOBILE

76–88
BROADCASTING
Fixed
Mobile

576</td><td>75.4–87
FIXED
MOBILE

573 574 577 579</td></tr>
<tr><td>87.5–100
BROADCASTING

581 582</td><td>88–100
BROADCASTING</td><td>87–100
FIXED
MOBILE
BROADCASTING

580</td></tr>
<tr><td>100–108</td><td colspan="2">BROADCASTING

582 583 584 585
586 587 588 589 590</td></tr>
</table>

75.2–76	FIXED MOBILE 572
76–108	BROADCASTING

MHz

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
108–117.975	AERONAUTICAL RADIONAVIGATION	
117.975–136	AERONAUTICAL MOBILE (R) 501 591 592 593 594	
136–137	AERONAUTICAL MOBILE (R) Fixed Mobile except aeronautical mobile (R) 591 595	
137–138	SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) 596 597 598 599	

108–117.975
AERONAUTICAL RADIONAVIGATION
117.975–137
AERONAUTICAL MOBILE (R)
501 592 593 595
137–138
SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth)

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
138–143.6 AERONAUTICAL MOBILE (OR) 600 601 602 604	138–143.6 FIXED MOBILE /RADIOLOCATION/ Space Research (space-to-Earth)	138–143.6 FIXED MOBILE Space Research (space-to-Earth) 599 603
143.6–143.65 AERONAUTICAL MOBILE (OR) SPACE RESEARCH (space-to-Earth) 601 602 604	143.6–143.65 FIXED MOBILE SPACE RESEARCH (space-to-Earth) /RADIOLOCATION/	143.6–143.65 FIXED MOBILE SPACE RESEARCH (space-to-Earth) 599 603
143.65–144 AERONAUTICAL MOBILE (OR) 600 601 602 604	143.65–144 FIXED MOBILE /RADIOLOCATION/ Space Research (space-to-Earth)	143.65–144 FIXED MOBILE Space Research (space-to-Earth) 599 603
144–146	AMATEUR 510 AMATEUR-SATELLITE 605 606	
146–149.9 FIXED MOBILE except aeronautical mobile (R) 608	146–148 AMATEUR 607 148–149.9 FIXED MOBILE 608	146–148 AMATEUR FIXED MOBILE 607
149.9–150.05	RADIONAVIGATION-SATELLITE 609	

138–144	FIXED LAND MOBILE Space Research (space-to-Earth)
144–146	AMATEUR 510 AMATEUR-SATELLITE
146–148	AMATEUR
148–149.9	FIXED LAND MOBILE 608
149.9–150.05	RADIONAVIGATION-SATELLITE 609

ITU ALLOCATION TO SERVICES

<table>
<tr><th>Region 1</th><th>Region 2</th><th>Region 3</th></tr>
<tr><td>150.05–153
FIXED
MOBILE except aeronautical mobile
RADIO ASTRONOMY

610 612</td><td colspan="2" rowspan="3">150.05–156.7625
FIXED
MOBILE</td></tr>
<tr><td>153–154
FIXED
MOBILE except aeronautical mobile (R)
Meteorological Aids</td></tr>
<tr><td>154–156.7625
FIXED
MOBILE except aeronautical mobile (R)

613 613A</td></tr>
<tr><td colspan="2">611 613 613A</td></tr>
<tr><td colspan="3">156.7625–156.8375

MARITIME MOBILE (distress and calling)

501 613 613A</td></tr>
<tr><td>156.8375–174
FIXED
MOBILE except aeronautical mobile (R)

613 614 615</td><td colspan="2">156.8375–174
FIXED
MOBILE

613 616 617 618</td></tr>
</table>

150.05–156.7625	MOBILE Fixed 613 613A
156.7625–156.8375	MARITIME MOBILE (distress and calling) 501 613 613A
156.8375–174	MOBILE Fixed 613

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
174–223 BROADCASTING	174–216 BROADCASTING Fixed Mobile	174–223 FIXED MOBILE BROADCASTING
	620	
	216–220 FIXED MARITIME MOBILE Radiolocation 627	
621 623 628 629	220–225 AMATEUR FIXED MOBILE Radiolocation 627	619 624 625 626 630
223–230 BROADCASTING Fixed Mobile 622 628 629 631 632 633 634 635	225–235 FIXED MOBILE	223–230 FIXED MOBILE BROADCASTING AERONAUTICAL RADIONAVIGATION Radiolocation 636 637
230–235 FIXED MOBILE 629 632 633 634 635 638 639		230–235 FIXED MOBILE AERONAUTICAL RADIONAVIGATION 637

MHz

CANADIAN ALLOCATION TABLE

174–216	BROADCASTING
216–220	FIXED MARITIME MOBILE
220–225	AMATEUR
225–235	FIXED MOBILE C5

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
235–267	FIXED MOBILE 501 592 635 640 641 642	
267–272	FIXED MOBILE Space Operation (space-to-Earth) 641 643	
272–273	SPACE OPERATION (space-to-Earth) FIXED MOBILE 641	
273–322	FIXED MOBILE 641	
322–328.6	FIXED MOBILE RADIO ASTRONOMY 644	
328.6–335.4	AERONAUTICAL RADIONAVIGATION 645	

235–328.6
FIXED MOBILE
501 592 642 C5 C7 C8
328.6–335.4
AERONAUTICAL RADIONAVIGATION 645

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
335.4–399.9	FIXED MOBILE 641	
399.9–400.05	RADIONAVIGATION-SATELLITE 609	
400.05–400.15	STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400.1 MHz) 646 647	
400.15–401	METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Space Operation (space-to-Earth) 647	

335.4–399.9	FIXED MOBILE C5 C7
399.9–400.05	RADIONAVIGATION-SATELLITE 609
400.05–400.15	STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400.1 MHz) 646
400.15–401	METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Space Operation (space-to-Earth)

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
401–402	METEOROLOGICAL AIDS SPACE OPERATION (space-to-Earth) Earth Exploration-Satellite (Earth-to-space) Fixed Meteorological-Satellite (Earth-to-space) Mobile except aeronautical mobile	
402–403	METEOROLOGICAL AIDS Earth Exploration-Satellite (Earth-to-space) Fixed Meteorological-Satellite (Earth-to-space) Mobile except aeronautical mobile	
403–406	METEOROLOGICAL AIDS Fixed Mobile except aeronautical mobile 648	
406–406.1	MOBILE-SATELLITE (Earth-to-space) 649	
406.1–410	FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 648 650	
410–420	FIXED MOBILE except aeronautical mobile	

401–402	METEOROLOGICAL AIDS SPACE OPERATION (space-to-Earth) Earth Exploration-Satellite (Earth-to-space) Fixed Mobile except aeronautical mobile
402–403	METEOROLOGICAL AIDS Earth Exploration-Satellite (Earth-to-space) Fixed Mobile except aeronautical mobile
403–406	METEOROLOGICAL AIDS MOBILE-SATELLITE except aeronautical mobile-satellite (Earth-to-space) C9 Fixed Mobile except aeronautical mobile
406–406.1	MOBILE-SATELLITE (Earth-to-space) 649
406.1–410	RADIO ASTRONOMY MOBILE except aeronautical mobile MOBILE-SATELLITE except aeronautical mobile satellite (Earth-to-space) C9 Fixed 650
410–414	MOBILE except aeronautical mobile Fixed
414–415	FIXED Mobile except aeronautical mobile
415–419	MOBILE except aeronautical mobile Fixed
419–420	FIXED Mobile except aeronautical mobile

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
420–430	FIXED MOBILE except aeronautical mobile Radiolocation 651 652 653	
430–440 AMATEUR RADIOLOCATION 653 654 655 656 657 658 659 661 662 663 664 665	430–440 RADIOLOCATION Amateur 653 658 659 660 663 664	
440–450	FIXED MOBILE except aeronautical mobile Radiolocation 651 652 653 666 667 668	
450–460	FIXED MOBILE 653 668 669 670	
460–470	FIXED MOBILE Meteorological-Satellite (space-to-Earth) 669 670 671 672	

CANADIAN ALLOCATION TABLE

420–430	MOBILE except aeronautical mobile Fixed C10
430–450	RADIOLOCATION Amateur 664 668
450–470	MOBILE 669 670 Fixed 668

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
470–790 BROADCASTING	470–512 BROADCASTING Fixed Mobile 674 675	470–585 FIXED MOBILE BROADCASTING
	512–608 BROADCASTING	673 677 679
	678	585–610 FIXED MOBILE BROADCASTING RADIONAVIGATION 688 689 690
	608–614 RADIO ASTRONOMY Mobile-Satellite except aeronautical mobile-satellite (Earth-to-space)	610–890 FIXED MOBILE BROADCASTING
676 680 681 682 683 684 685 686 687 689 693 694	614–806 BROADCASTING Fixed Mobile	
790–862 FIXED BROADCASTING	675 692 693	
694 695 696 697 698 699 702	806–890 FIXED MOBILE BROADCASTING	
862–890 FIXED MOBILE except aeronautical mobile BROADCASTING 703		
699 704	700	677 688 689 690 691 693 701

470–608	BROADCASTING
608–614	RADIO ASTRONOMY Mobile-Satellite except aeronautical mobile-satellite (Earth-to-space)
614–806	BROADCASTING
806–890	MOBILE Fixed 700 C11

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
890–942 FIXED MOBILE except aeronautical mobile BROADCASTING 703 Radiolocation	890–902 FIXED MOBILE except aeronautical mobile Radiolocation 705	890–942 FIXED MOBILE BROADCASTING Radiolocation
	902–928 FIXED Amateur Mobile except aeronautical mobile Radiolocation 705 707	
	928–942 FIXED MOBILE except aeronautical mobile Radiolocation	
704	705	706
942–960 FIXED MOBILE except aeronautical mobile BROADCASTING 703	942–960 FIXED Mobile	942–960 FIXED MOBILE BROADCASTING
699 704	708	701

CANADIAN ALLOCATION TABLE

890–902	FIXED MOBILE except aeronautical mobile Radiolocation C5A
902–928	FIXED RADIOLOCATION C5A Amateur 707
928–942	FIXED MOBILE except aeronautical mobile Radiolocation C5A
942–960	FIXED Mobile

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
960–1 215	AERONAUTICAL RADIONAVIGATION 709	
1 215–1 240	RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) 710 711 712 713	
1 240–1 260	RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) 710 Amateur 711 712 713 714	
1 260–1 300	RADIOLOCATION Amateur 664 711 712 713 714	
1 300–1 350	AERONAUTICAL RADIONAVIGATION 717 Radiolocation 715 716 718	
1 350–1 400 FIXED MOBILE RADIOLOCATION 718 719 720	1 350–1 400 RADIOLOCATION 714 718 720	
1 400–1 427	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 721 722	

960–1 215	AERONAUTICAL RADIONAVIGATIDN 709
1 215–1 240	RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) 710 713
1 240–1 300	RADIOLOCATION AERONAUTICAL RADIONAVIGATION 710 Amateur 664 713
1 300–1 350	AERONAUTICAL RADIONAVIGATION 717 Radiolocation 718
1 350–1 370	RADIOLOCATION AERONAUTICAL RADIONAVIGATION 718
1 370–1 400	RADIOLOCATION 718 720
1 400–1 427	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 721 722

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
1 427–1 429	SPACE OPERATION (Earth-to-space) FIXED MOBILE except aeronautical mobile 722	
1 429–1 525 FIXED MOBILE except aeronautical mobile 722	1 429–1 525 FIXED MOBILE 723 722	
1 525–1 530 SPACE OPERATION (space-to-Earth) FIXED Earth Exploration-Satellite Mobile except aeronautical mobile 724 722 725	1525–1 530 SPACE OPERATION (space-to-Earth) Earth Exploration-Satellite Fixed Mobile 723 722	1 525–1 530 SPACE OPERATION (space-to-Earth) FIXED Earth Exploration-Satellite Mobile 723 724 722
1 530–1 535 SPACE OPERATION (space-to-Earth) MARITIME MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed Mobile except aeronautical mobile 722 726	1 530–1 535 SPACE OPERATION (space-to-Earth) MARITIME MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed Mobile 723 722 726	

1 427–1 429	SPACE OPERATION (Earth-to-space) FIXED 722
1 429–1 525	FIXED MOBILE C5 C12 722
1 525–1 530	SPACE OPERATION (space-to-Earth) MOBILE C5 C12 Earth Exploration-Satellite Fixed 722
1 530–1 535	MARITIME MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed 722 726

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
1 535–1 544	MARITIME MOBILE-SATELLITE (space-to-Earth) 722 727	
1 544–1 545	MOBILE-SATELLITE (space-to-Earth) 722 727 728	
1 545–1 559	AERONAUTICAL MOBILE-SATELLITE (R) (space-to-Earth) 722 727 729 730	
1 559–1 610	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) 722 727 730 731	
1 610–1 626.5	AERONAUTICAL RADIONAVIGATION 722 727 730 732 733 734	

1 535–1 544	MARITIME MOBILE-SATELLITE (space-to-Earth) 722
1 544–1 545	MOBILE-SATELLITE (space-to-Earth) 722 728
1 545–1 559	AERONAUTICAL MOBILE-SATELLITE (R) (space-to-Earth) 722 729
1 559–1 610	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) 722
1 610–1 626.5	AERONAUTICAL RADIONAVIGATION 722 732 733 734

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
1 626.5–1 645.5	MARITIME MOBILE-SATELLITE (Earth-to-space) 722 727 730	
1 645.5–1 646.5	MOBILE-SATELLITE (Earth-to-space) 722 728	
1 646.5–1 660	AERONAUTICAL MOBILE-SATELLITE (R) (Earth-to-space) 722 727 730 735	
1 660–1 660.5	AERONAUTICAL MOBILE-SATELLITE (R) (Earth-to-space) RADIO ASTRONOMY 722 735 736	
1 660.5–1 668.4	RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 722 736 737 738 739	
1 668.4–1 670	METEOROLOGICAL AIDS FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 722 736	

1 626.5–1 645.5	MARITIME MOBILE-SATELLITE (Earth-to-space) 722
1 645.5–1 646.5	MOBILE-SATELLITE (Earth-to-space) 722 728
1 646.5–1 660	AERONAUTICAL MOBILE-SATELLITE (R) (Earth-to-space) 722 735
1 660–1 660.5	AERONAUTICAL MOBILE-SATELLITE (R) (Earth-to-space) RADIO ASTRONOMY 722 735 736
1 660.5–1 668.4	RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed 722 736 739
1 668.4–1 670	METEOROLOGICAL AIDS FIXED RADIO ASTRONOMY 722 736

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
1 670–1 690 METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 722		
1 690–1 700 METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) Fixed Mobile except aeronautical mobile 671 722 741	1 690–1 700 METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) 671 722 740 742	
1 700–1 710 FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) Mobile except aeronautical mobile 671 722	1 700–1 710 FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 671 722 743	
1 710–2 290 FIXED Mobile 722 744 746 747 748 750	1 710–2 290 FIXED MOBILE 722 744 745 746 747 748 749 750	

CANADIAN ALLDCATIDN TABLE

1 670–1 700	METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) 671 722
1 700–1 710	FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) 671 722
1 710–2 290	FIXED Mobile C5 722 744 745 747 748 750

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
2 290–2 300 FIXED SPACE RESEARCH (deep space) (space-to-Earth) Mobile except aeronautical mobile	2 290–2 300 FIXED MOBILE except aeronautical mobile SPACE RESEARCH (deep space) (space-to-Earth)	
2 300–2 450 FIXED Amateur Mobile Radiolocation 664 752	2 300–2 450 FIXED MOBILE RADIOLOCATION Amateur 664 751 752	
2 450–2 500 FIXED MOBILE Radiolocation 752 753	2 450–2 500 FIXED MOBILE RADIOLOCATION 752	
2 500–2 655 FIXED 762 763 764 MOBILE except aeronautical mobile BROADCASTING- SATELLITE 757 760 720 753 756 758 759	2 500–2 655 FIXED 762 764 FIXED-SATELLITE (space-to-Earth) 761 MOBILE except aeronautical mobile BROADCASTING- SATELLITE 757 760 720 755	2 500–2 535 FIXED 762 764 FIXED-SATELLITE (space-to-Earth) 761 MOBILE except aeronautical mobile BROADCASTING- SATELLITE 757 760 754 2 535–2 655 FIXED 762 764 MOBILE except aeronautical mobile BROADCASTING- SATELLITE 757 760 720

2 290–2 300	FIXED SPACE RESEARCH (space-to-Earth) (deep space) Mobile C5
2 300–2 450	FIXED MOBILE C12 RADIOLOCATIDN Amateur 664 752
2 450–2 500	FIXED RADIOLOCATION 752
2 500–2 550	FIXED 762 764 FIXED-SATELLITE (space-to-Earth) 761 BROADCASTING-SATELLITE 757 760 RADIOLOCATION Broadcasting Mobile C5
2 550–2 596	FIXED 762 764 FIXED-SATELLITE (space-to-Earth) 761 BROADCASTING-SATELLITE 757 760 Broadcasting Mobile C5 720 C13
2 596–2 655	FIXED-SATELLITE (space-to-Earth) 761 BROADCASTING BROADCASTING-SATELLITE 757 760 Fixed 762 764 Mobile C5 720 C13

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
2 655–2 690 FIXED 762 763 764 MOBILE except aeronautical mobile BROADCASTING-SATELLITE 757 760 Earth Exploration-Satellite (passive) Radio Astronomy Space Research (passive) 758 759 765	2 655–2 690 FIXED 762 764 FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 761 MOBILE except aeronautical mobile BROADCASTING-SATELLITE 757 760 Earth Exploration-Satellite (passive) Radio Astronomy Space Research (passive) 765	2 655–2 690 FIXED 762 764 FIXED-SATELLITE (Earth-to-space) 761 MOBILE except aeronautical mobile BROADCASTING-SATELLITE 757 760 Earth Exploration-Satellite (passive) Radio Astronomy Space Research (passive) 765 766
2 690–2 700	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 767 768 769	
2 700–2 900	AERONAUTICAL RADIONAVIGATION 717 Radiolocation 770 771	
2 900–3 100	RADIONAVIGATION 773 774 775 Radiolocation 772	
3 100–3 300	RADIOLOCATION 713 776 777 778	

2 655–2 686	FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 761 BROADCASTING-SATELLITE 757 760 BROADCASTING Earth Exploration-Satellite Space Research Radio Astronomy Fixed 762 764 Mobile C5 765 C13
2 686–2 690	FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 761 BROADCASTING-SATELLITE 757 760 BROADCASTING Earth Exploration-Satellite (passive) Radio Astronomy Space Research (passive) Fixed 762 764 765 C13
2 690–2 700	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 768
2 700–2 850	AERONAUTICAL RADIONAVIGATION 717 Radiolocation 770
2 850–2 900	AERONAUTICAL RADIONAVIGATION 717 MARITIME RADIONAVIGATION C14 Radiolocation
2 900–3 100	RADIONAVIGATION 773 774 775 Radiolocation 772
3 100–3 300	RADIOLOCATION 713 776 778

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
3 300–3 400 RADIOLOCATION 778 779 780	3 300–3 400 RADIOLOCATION Amateur Fixed Mobile 778 780	3 300–3 400 RADIOLOCATION Amateur 778 779
3 400–3 600 FIXED FIXED-SATELLITE (space-to-Earth) Mobile Radiolocation 781 782 785	3 400–3 500 FIXED FIXED-SATELLITE (space-to-Earth) Amateur Mobile Radiolocation 784 664 783	
3 600–4 200 FIXED FIXED-SATELLITE (space-to-Earth) Mobile	3 500–3 700 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile Radiolocation 784 786	
	3 700–4 200 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 787	
4 200–4 400 788 790 791	AERONAUTICAL RADIONAVIGATION 789	

3 300–3 500	RADIOLOCATION C5 Amateur 664 778
3 500–4 200	FIXED FIXED-SATELLITE (space-to-Earth)
4 200–4 400	AERONAUTICAL RADIONAVIGATION 789 791

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
4 400–4 500	FIXED MOBILE	
4 500–4 800	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE 792	
4 800–4 990	FIXED MOBILE 793 Radio Astronomy 720 778 794	
4 990–5 000	FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY Space Research (passive) 795	

4 400–4 500	FIXED Mobile C5
4 500–4 800	FIXED FIXED-SATELLITE (space-to-Earth) Mobile C5
4 800–4 825	FIXED Radio Astronomy 778
4 825–4 835	FIXED RADIO ASTRONOMY 778
4 835–4 950	FIXED Radio Astronomy
4 950–4 990	FIXED RADIO ASTRONOMY 720
4 990–5 000	FIXED RADIO ASTRONOMY Space Research (passive) 795

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
5 000–5 250	AERONAUTICAL RADIONAVIGATION 733 796 797	
5 250–5 255	RADIOLOCATION Space Research 713 798	
5 255–5 350	RADIOLOCATION 713 798	
5 350–5 460	AERONAUTICAL RADIONAVIGATION 799 Radiolocation	
5 460–5 470	RADIONAVIGATION 799 Radiolocation	
5 470–5 650	MARITIME RADIONAVIGATION 772 Radiolocation 800 801 802	
5 650–5 725	RADIOLOCATION Amateur Space Research (deep space) 664 801 803 804 805	

5 000–5 250	AERONAUTICAL RADIONAVIGATION 733 796 797
5 250–5 255	RADIOLOCATION Space Research 713
5 255–5 350	RADIOLOCATION 713
5 350–5 460	AERONAUTICAL RADIONAVIGATION 799 Radiolocation
5 460–5 470	RADIONAVIGATION 799 Radiolocation
5 470–5 650	MARITIME RADIONAVIGATION 772 Radiolocation 802
5 650–5 725	RADIOLOCATION Amateur Space Research (deep space) 664

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
5 725–5 850 FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur 801 803 805 806 807 808	5 725–5 850 RADIOLOCATION Amateur 803 805 806 808	
5 850–5 925 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 806	5 850–5 925 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Amateur Radiolocation 806	5 850–5 925 FIXED FIXED-SATELLITE (Earth-to-space) MDBILE Radiolocation 806
5 925–7 075 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 791 809		
7 075–7 250 FIXED MOBILE 809 810 811		
7 250–7 300 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE 812		
7 300–7 450 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 812		
7 450–7 550 FIXED FIXED-SATELLITE (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile		

5 725–5 850	RADIOLOCATION Amateur 806 808
5 850–5 925	FIXED FIXED-SATELLITE (Earth-to-space) Amateur Radiolocation 806
5 925–7 075	FIXED FIXED-SATELLITE (Earth-to-space) 791 809
7 075–7250	FIXED 809 810 811
7 250–7 300	FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE 812 C5
7 300–7 450	FIXED FIXED-SATELLITE (space-to-Earth) 812 C15
7 450–7 550	FIXED FIXED-SATELLITE (space-to-Earth) C5 METEOROLOGICAL-SATELLITE (space-to-Earth)

ITU ALLOCATION TO SERVICES

<table>
<tr><th>Region 1</th><th>Region 2</th><th>Region 3</th></tr>
<tr><td>7 550–7 750</td><td colspan="2">FIXED
FIXED-SATELLITE (space-to-Earth)
MOBILE except aeronautical mobile</td></tr>
<tr><td>7 750–7 900</td><td colspan="2">FIXED
MOBILE except aeronautical mobile</td></tr>
<tr><td>7 900–7 975</td><td colspan="2">FIXED
FIXED-SATELLITE (Earth-to-space)
MOBILE

812</td></tr>
<tr><td>7 975–8 025</td><td colspan="2">FIXED
FIXED-SATELLITE (Earth-to-space)
MOBILE

812</td></tr>
<tr><td>8 025–8 175
FIXED
FIXED-SATELLITE
(Earth-to-space)
MOBILE
Earth Exploration-
Satellite (space-to-Earth)
813 815</td><td>8 025–8 175
EARTH EXPLORATION-
SATELLITE
(space-to-Earth)
FIXED
FIXED-SATELLITE
(Earth-to-space)
MOBILE 814</td><td>8 025–8 175
FIXED
FIXED-SATELLITE
(Earth-to-space)
MOBILE
Earth Exploration-
Satellite (space-to-Earth)
813 815</td></tr>
</table>

7 550–7 750	FIXED FIXED-SATELLITE (space-to-Earth) C5
7 750–7 900	FIXED
7 900–7 975	FIXED FIXED-SATELLITE (Earth-to-space) 812 C15
7 975–8 025	FIXED-SATELLITE (Earth-to-space) MOBILE-SATELLITE 812 C5
8 025–8 175	EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) C5 814

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
8 175–8 215 FIXED FIXED-SATELLITE (Earth-to-space) METEOROLOGICAL- SATELLITE (Earth-to-space) MOBILE Earth Exploration- Satellite (space-to-Earth) 813 815	8 175–8 215 EARTH EXPLORATION SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) METEOROLOGICAL- SATELLITE (Earth-to-space) MOBILE 814	8 175–8 215 FIXED FIXED-SATELLITE (Earth-to-space) METEOROLOGICAL- SATELLITE (Earth-to-space) MOBILE Earth Exploration- Satellite (space-to-Earth) 813 815
8 215–8 400 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Earth Exploration- Satellite (space-to-Earth) 813 815	8 215–8 400 EARTH EXPLORATION- SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 814	8 215–8 400 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Earth Exploration- Satellite (space-to-Earth) 813 815
8 400–8 500	FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) 816 817 818	
8 500–8 750	RADIOLOCATION 713 819 820	
8 750–8 850	RADIOLOCATION AERONAUTICAL RADIONAVIGATION 821 822	

8 175–8 215	EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) C5 METEOROLOGICAL-SATELLITE (Earth-to-space) 814
8 215–8 400	EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) C5 814
8 400–8 500	FIXED SPACE RESEARCH (space-to-Earth) 816
8 500–8 750	RADIOLOCATION 713
8 750–8 850	RADIOLOCATION AERONAUTICAL RADIONAVIGATION 821

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
8 850–9 000	RADIOLOCATION MARITIME RADIONAVIGATION 823 824	
9 000–9 200	AERONAUTICAL RADIONAVIGATION 717 Radiolocation 822	
9 200–9 300	RADIOLOCATION MARITIME RADIONAVIGATION 772 823 824	
9 300–9 500	RADIONAVIGATION 774 775 Radiolocation 825	
9 500–9 800	RADIOLOCATION RADIONAVIGATION 713	
9 800–10 000	RADIOLOCATION Fixed 826 827 828	

8 850–9 000	RADIOLOCATION MARITIME RADIONAVIGATION 823
9 000–9 200	AERONAUTICAL RADIONAVIGATION 717 Radiolocation
9 200–9 300	RADIOLOCATION MARITIME RADIONAVIGATION 772 823
9 300–9 500	RADIONAVIGATION 774 775 Radiolocation 825
9 500–9 800	RADIOLOCATION RADIONAVIGATION 713
9 800–10 000	RADIOLOCATION Fixed 828

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
10–10.45 FIXED MOBILE RADIOLOCATION Amateur 828	10–10.45 RADIOLOCATION Amateur 828 829	10–10.45 FIXED MOBILE RADIOLOCATION Amateur 828
10.45–10.5 RADIOLOCATION Amateur Amateur-Satellite 830		
10.5–10.55 FIXED MOBILE Radiolocation	10.5–10.55 FIXED MOBILE RADIOLOCATION	
10.55–10.6 FIXED MOBILE except aeronautical mobile Radiolocation		
10.6–10.68 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) Radiolocation 831 832		
10.68–10.7 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 833 834		

10–10.45	RADIOLOCATION Amateur 828
10.45–10.5	RADIOLOCATION Amateur Amateur-Satellite
10.5–10.55	FIXED RADIOLOCATION
10.55–10.6	FIXED
10.6–10.68	EARTH EXPLORATION-SATELLITE (passive) FIXED RADIO ASTRONOMY SPACE RESEARCH (passive) 831 832
10.68–10.7	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 833

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
10.7–11.7 FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 835 MOBILE except aeronautical mobile	10.7–11.7 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile	
11.7–12.5 FIXED BROADCASTING BROADCASTING- SATELLITE Mobile except aeronautical mobile	11.7–12.1 FIXED 837 FIXED-SATELLITE (space-to-Earth) Mobile except aeronautical mobile 836 839 840	11.7–12.2 FIXED MOBILE except aeronautical mobile BROADCASTING BROADCASTING- SATELLITE 838 840
	12.1–12.3 FIXED 837 FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile BROADCASTING BROADCASTING- SATELLITE 839 840 841 842 843 844	12.2–12.5 FIXED MOBILE except aeronautical mobile BROADCASTING 838 840 845
838 840	12.3–12.7 FIXED MOBILE except aeronautical mobile BROADCASTING BROADCASTING- SATELLITE 839 840 843 844 846	12.5–12.75 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile BROADCASTING- SATELLITE 847
12.5–12.75 FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 840 848 849 850	12.7–12.75 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE except aeronautical mobile 840	840

10.7–11.7	FIXED FIXED-SATELLITE (space-to-Earth) C16
11.7–12.2	FIXED-SATELLITE (space-to-Earth) 839 840 C17
12.2–12.7	FIXED BROADCASTING BROADCASTING-SATELLITE 839 840 C18 C20
12.7–12.75	FIXED FIXED-SATELLITE (Earth-to-space) 840

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
12.75–13.25	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Space Research (deep space) (space-to-Earth)	
13.25–13.4	AERONAUTICAL RADIONAVIGATION 851 852 853	
13.4–14	RADIOLOCATION Standard Frequency and Time Signal-Satellite (Earth-to-space) Space Research 713 853 854 855	
14–14.25	FIXED-SATELLITE (Earth-to-space) 858 RADIONAVIGATION 856 Space Research 857 859	
14.25–14.3	FIXED-SATELLITE (Earth-to-space) 858 RADIONAVIGATION 856 Space Research 857 859 860 861	

12.75–13.25	FIXED FIXED-SATELLITE (Earth-to-space)
13.25–13.4	AERONAUTICAL RADIONAVIGATION 851 852
13.4–14	RADIOLOCATION Standard Frequency and Time Signal-Satellite (Earth-to-space) Space Research 713
14–14.3	FIXED-SATELLITE (Earth-to-space)

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
14.3–14.4 FIXED FIXED-SATELLITE (Earth-to-space) 858 MOBILE except aeronautical mobile Radionavigation-Satellite 859	14.3–14.4 FIXED-SATELLITE (Earth-to-space) 858 Radionavigation-Satellite 859	14.3–14.4 FIXED FIXED-SATELLITE (Earth-to-space) 858 MOBILE except aeronautical mobile Radionavigation-Satellite 859
14.4–14.47 FIXED FIXED-SATELLITE (Earth-to-space) 858 MOBILE except aeronautical mobile Space Research (space-to-Earth) 859		
14.47–14.5 FIXED FIXED-SATELLITE (Earth-to-space) 858 MOBILE except aeronautical mobile Radio Astronomy 859 862		
14.5–14.8 FIXED FIXED-SATELLITE (Earth-to-space) 863 MOBILE Space Research		
14.8–15.35 FIXED MOBILE Space Research 720		

14.3–14.47	**FIXED-SATELLITE (Earth-to-space)**
14.47–14.5	**FIXED-SATELLITE (Earth-to-space)** **Radio Astronomy** **862**
14.5–15.35	**FIXED** **Mobile C5** **720**

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
15.35–15.4	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 864 865	
15.4–15.7	AERONAUTICAL RADIONAVIGATION 733 797	
15.7–16.6	RADIOLOCATION 866 867	
16.6–17.1	RADIDLOCATION Space Research (Earth-to-space) (deep space) 866 867	
17.1–17.2	RADIOLOCATIDN 866 867	
17.2–17.3	RADIDLOCATION Earth Exploration-Satellite (active) Space Research (active) 866 867	
17.3–17.7	FIXED-SATELLITE (Earth-to-space) 869 Radiolocation 868	

15.35–15.4	RADIO ASTRONOMY EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 864
15.4–15.7	AERONAUTICAL RADIONAVIGATION 733 797
15.7–16.6	RADIOLOCATION
16.6–17.1	RADIOLDCATION Space Research (Earth-to-space) (deep space)
17.1–17.2	RADIOLOCATION
17.2–17.3	RADIOLOCATION Earth Exploration-Satellite (active) Space Research (active)
17.3–17.7	FIXED-SATELLITE (Earth-to-space) 869 Radiolocation

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
17.7–18.1	FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 869 MOBILE	
18.1–18.6	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE 870	
18.6–18.8 FIXED FIXED SATELLITE (space-to-Earth) 872 MOBILE except aeronautical mobile Earth Exploration- Satellite (passive) Space Research (passive) 871	18.6–18.8 EARTH EXPLORATION- SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) 872 MOBILE except aeronautical mobile SPACE RESEARCH (passive) 871	18.6–18.8 FIXED FIXED-SATELLITE (space-to-Earth) 872 MOBILE except aeronautical mobile Earth Exploration- Satellite (passive) Space Research (passive) 871
18.8–19.7	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE	
19.7–20.2	FIXED-SATELLITE (space-to-Earth) Mobile-Satellite (space-to-Earth) 873	
20.2–21.2	FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) Standard Frequency and Time Signal-Satellite (space-to-Earth) 873	
21.2–21.4	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)	
21.4–22	FIXED MOBILE	

17.7–18.1	FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 869
18.1–18.6	FIXED FIXED-SATELLITE (space-to-Earth) 870
18.6–18.8	EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) 872 SPACE RESEARCH (passive) 871
18.8–19.7	FIXED FIXED-SATELLITE (space-to-Earth)
19.7–20.2	FIXED-SATELLITE (space-to-Earth) Mobile-satellite (space-to-Earth)
20.2–21.2	FIXED-SATELLITE (space-to-Earth) C21 MOBILE-SATELLITE (space-to-Earth) C21 Standard Frequency and Time Signal-Satellite (space-to-Earth)
21.2–21.4	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile SPACE RESEARCH (passive)
21.4–22	FIXED MOBILE

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
22–22.21	FIXED MOBILE except aeronautical mobile 874	
22.21–22.5	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) 875 876	
22.5–22.55 FIXED MOBILE	22.5–22.55 FIXED MOBILE BROADCASTING- SATELLITE 877 878	
22.55–23 FIXED INTER-SATELLITE MOBILE 879	22.55–23 FIXED INTER-SATELLITE MOBILE BROADCASTING-SATELLITE 877 878 879	
23–23.55	FIXED INTER-SATELLITE MOBILE 879	
23.55–23.6	FIXED MOBILE	

22–22.21	FIXED MOBILE except aeronautical mobile 874
22.21–22.5	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) 875 876
22.5–22.55	BROADCASTING-SATELLITE 877 FIXED MOBILE
22.55–23	BROADCASTING-SATELLITE 877 FIXED INTER-SATELLITE MOBILE 879
23–23.55	FIXED INTER-SATELLITE MOBILE 879
23.55–23.6	FIXED MOBILE

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
23.6–24	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 880	
24–24.05	AMATEUR AMATEUR-SATELLITE 881	
24.05–24.25	RADIOLOCATION Amateur Earth Exploration-Satellite (active) 881	
24.25–25.25	RADIONAVIGATION	
25.25–27	FIXED MOBILE Earth Exploration-Satellite (space-to-space) Standard Frequency and Time Signal-Satellite (Earth-to-space)	
27–27.5 FIXED MOBILE Earth Exploration-Satellite (space-to-space)	27–27.5 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Earth Exploration-Satellite (space-to-space)	

23.6–24	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 880
24–24.05	AMATEUR AMATEUR-SATELLITE 881
24.05–24.25	RADIOLOCATION Amateur Earth Exploration-Satellite (active) 881
24.25–25.25	RADIONAVIGATION
25.25–27	FIXED MOBILE Earth Exploration-Satellite (space-to-space) Standard Frequency and Time Signal-Satellite (Earth-to-space)
27–27.5	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Earth Exploration-Satellite (space-to-space)

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
27.5–29.5	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE	
29.5–30	FIXED-SATELLITE (Earth-to-space) Mobile-Satellite (Earth-to-space) 882 883	
30–31	FIXED-SATELLITE (Earth-to-space) MOBILE-SATELLITE (Earth-to-space) Standard Frequency and Time Signal-Satellite (space-to-Earth) 883	
31–31.3	FIXED MOBILE Standard Frequency and Time Signal-Satellite (space-to-Earth) Space Research 884 885 886	
31.3–31.5	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 887	
31.5–31.8 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 888 889	31.5–31.8 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 888	31.5–31.8 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 888

27.5–29.5	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE
29.5–30	FIXED-SATELLITE (Earth-to-space) Mobile-satellite (Earth-to-space) 882
30–31	FIXED-SATELLITE (Earth-to-space) C21 MOBILE-SATELLITE (Earth-to-space) C21 Standard Frequency and Time Signal-Satellite (space-to-Earth)
31–31.3	FIXED MOBILE Standard Frequency and Time Signal-Satellite (space-to-Earth) Space Research 884 886
31.3–31.8	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 887 888

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
31.8–32	RADIONAVIGATION Space Research 890 891 892	
32–32.3	INTER-SATELLITE RADIONAVIGATION Space Research 890 891 892 893	
32.3–33	INTER-SATELLITE RADIONAVIGATION 892 893	
33–33.4	RADIONAVIGATION 892	
33.4–34.2	RADIOLOCATION 892 894	
34.2–35.2	RADIDLOCATION Space Research 895 896 894	
35.2–36	METEOROLOGICAL AIDS RADIOLOCATION 894 897	

31.8–32	RADIONAVIGATION Space Research
32–32.3	INTER-SATELLITE RADIONAVIGATION Space Research 893
32.3–33	INTER-SATELLITE RADIONAVIGATION 893
33–33.4	RADIONAVIGATION
33.4–34.2	RADIOLOCATION
34.2–35.2	RADIOLOCATION Space Research
35.2–36	METEOROLOGICAL AIDS RADIOLOCATION 897

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
36–37	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 898	
37–37.5	FIXED MOBILE 899	
37.5–39.5	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE 899	
39.5–40.5	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth)	
40.5–42.5	BROADCASTING-SATELLITE BROADCASTING/ Fixed Mobile	
42.5–43.5	FIXED FIXED-SATELLITE (Earth-to-space) 901 MOBILE except aeronautical mobile RADIO ASTRONOMY 900	

36–37	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 898
37–37.5	FIXED MOBILE
37.5–39.5	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE
39.5–40.5	FIXED FIXED-SATELLITE (space-to-Earth) C21 MOBILE MOBILE-SATELLITE (space-to-Earth) C21
40.5–42.5	BROADCASTING-SATELLITE /BROADCASTING/ Fixed Mobile
42.5–43.5	FIXED FIXED-SATELLITE (Earth-to-space) 901 MOBILE except aeronautical mobile RADIO ASTRONOMY 900

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
43.5–47	MOBILE 902 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 903	
47–47.2	AMATEUR AMATEUR-SATELLITE	
47.2–50.2	FIXED FIXED-SATELLITE (Earth-to-space) 901 MOBILE 905 904	
50.2–50.4	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)	
50.4–51.4	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Mobile-Satellite (Earth-to-space)	
51.4–54.25	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 906 907	
54.25–58.2	EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE MOBILE 909 SPACE RESEARCH (passive) 908	
58.2–59	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 906 907	

43.5–47	MOBILE 902 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 903
47–47.2	AMATEUR AMATEUR-SATELLITE
47.2–50.2	FIXED FIXED-SATELLITE (Earth-to-space) 901 MOBILE 905 904
50.2–50.4	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)
50.4–51.4	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Mobile-Satellite (Earth-to-space)
51.4–54.25	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 906 907
54.25–58.2	EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE MOBILE 909 SPACE RESEARCH (passive)
58.2–59	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 906 907

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
59–64	FIXED INTER-SATELLITE MOBILE 909 RADIOLOCATION 910 911	
64–65	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 906 907	
65–66	EARTH EXPLORATION-SATELLITE SPACE RESEARCH Fixed Mobile	
66–71	MOBILE 902 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 903	
71–74	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE MOBILE-SATELLITE (Earth-to-space) 906	
74–75.5	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE	
75.5–76	AMATEUR AMATEUR-SATELLITE	

59–64	FIXED INTER-SATELLITE MOBILE 909 RADIOLOCATION 910 911
64–65	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 906 907
65–66	EARTH EXPLORATION-SATELLITE SPACE RESEARCH Fixed Mobile
66–71	MOBILE 902 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE
71–74	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE MOBILE-SATELLITE (Earth-to-space) 906
74–75.5	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE
75.5–76	AMATEUR AMATEUR-SATELLITE

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
76–81	RADIOLOCATION Amateur Amateur-Satellite 912	
81–84	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth)	
84–86	FIXED MOBILE BROADCASTING BROADCASTING-SATELLITE 913	
86–92	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 907	
92–95	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIOLOCATION 914	

76–81	RADIOLOCATION Amateur Amateur-Sateiiite 912
81–84	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth)
84–86	FIXED MOBILE BROADCASTING BROADCASTING-SATELLITE 913
86-92	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 907
92–95	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIOLOCATION 914

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
95–100	MOBILE 902 MOBILE-SATELLITE RADIONAVIGATION RADIDNAVIGATIDN-SATELLITE Radiolocation 903 904	
100–102	EARTH EXPLORATION-SATELLITE (passive) FIXED MDBILE SPACE RESEARCH (passive) 722	
102–105	FIXED FIXED-SATELLITE (space-to-Earth) MDBILE 722	
105–116	EARTH EXPLDRATION-SATELLITE (passlve) RADIO ASTRONOMY SPACE RESEARCH (passive) 722 907	
116–126	EARTH EXPLDRATIDN-SATELLITE (passive) FIXED INTER-SATELLITE MDBILE 909 SPACE RESEARCH (passive) 722 915 916	
126–134	FIXED INTER-SATELLITE MDBILE 909 RADIOLDCATIDN 910	
134–142	MDBILE 902 MDBILE-SATELLITE RADIDNAVIGATION RADIONAVIGATIDN-SATELLITE Rediolocation 903 917 918	

95–100	MOBILE 902 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE Radiolocation 903 904
100–102	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 722
102–105	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE 722
105–116	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 722 907
116–126	EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE MOBILE 909 SPACE RESEARCH (passive) 722 915 916
126–134	FIXED INTER-SATELLITE MOBILE 909 RADIOLOCATION 910
134–142	MOBILE 902 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE Radiolocation 903 917 918

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
142–144	AMATEUR AMATEUR-SATELLITE	
144–149	RADIDLDCATIDN Amateur Amateur-Satellite 918	
149–150	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE	
150–151	EARTH EXPLDRATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (passive) 919	
151–164	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE	
164–168	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)	
168–170	FIXED MOBILE	
170–174.5	FIXED INTER-SATELLITE MOBILE 909 919	
174.5–176.5	EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE MOBILE 909 SPACE RESEARCH (passive) 919	
176.5–182	FIXED INTER-SATELLITE MOBILE 909 919	

142–144	AMATEUR AMATEUR-SATELLITE
144–149	RADIOLOCATION Amateur Amateur-Satellite 918
149–150	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE
150–151	EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (passive) 919
151–164	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE
164–168	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) C22
168–170	FIXED MOBILE
170–174.5	FIXED INTER-SATELLITE MOBILE 909 919
174.5–176.5	EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE MOBILE 909 SPACE RESEARCH (passive) 919
176.5–182	FIXED INTER-SATELLITE MOBILE 909 919

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
182–185	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 920 921	
185–190	FIXED INTER-SATELLITE MOBILE 909 919	
190–200	MOBILE 902 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 722 903	
200–202	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 722	
202–217	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 722	

182–185	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 921
185–190	FIXED INTER-SATELLITE MOBILE 909 919
190–200	MOBILE 902 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 722 903
200–202	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 722
202–217	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 722

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
217–231	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 722 907	
231–235	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Radiolocation	
235–238	EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (passive)	
238–241	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Radiolocation	
241–248	RADIOLOCATION Amateur Amateur-Satellite 922	

217–231	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 722 907
231–235	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Radiolocation
235–238	EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (passive)
238–241	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Radiolocation
241–248	RADIOLOCATION Amateur Amateur-Satellite 922

ITU ALLOCATION TO SERVICES

Region 1	Region 2	Region 3
248–250	AMATEUR AMATEUR-SATELLITE	
250–252	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 923	
252–265	MOBILE 902 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 903 923 924 925	
265–275	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 926	
275–400	(Not allocated) 927	

248–250	AMATEUR AMATEUR-SATELLITE
250–252	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) C23 C24
252–265	MOBILE 902 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 903 923 924 C23
265–275	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 926
275–400	(Not allocated) 927

GENERAL INFORMATION

VHF Television Broadcasting Channels

Channel Number	Frequency Band, MHz	Channel Number	Frequency Band, MHz
2	54–60	8	180–186
3	60–66	9	186–192
4	66–72	10	192–198
5	76–82	11	198–204
6	82–88	12	204–210
7	174–180	13	210–216

UHF Television Broadcasting Channels

Channel Number	Frequency Band, MHz	Channel Number	Frequency Band, MHz
14	470–476	43	644–650
15	476–482	44	650–656
16	482–488	45	656–662
17	488–494	46	662–668
18	494–500	47	668–674
19	500–506	48	674–680
20	506–512	49	680–686
21	512–518	50	686–692
22	518–524	51	696–698
23	524–530	52	698–704
24	530–536	53	704–710
25	536–542	54	710–716
26	542–548	55	716–722
27	548–554	56	722–728
28	554–560	57	728–734
29	560–566	58	734–740
30	566–572	59	740–746
31	572–578	60	746–752
32	578–584	61	752–758
33	584–590	62	758–764
34	590–596	63	764–770
35	596–602	64	770–776
36	602–608	65	776–782
37	608–614	66	782–788
38	614–620	67	788–794
39	620–626	68	794–800
40	626–632	69	800–806
41	632–638		
42	638–644		

Non-telecommunication Frequencies

Industrial, Scientific and Medical (ISM)

Industrial, Scientific and Medical (ISM) applications are not considered to be a telecommunication service. Nevertheless, the use of those frequencies below identified by an asterisk (*) are subject to special authorization to be granted by the Department of Communications.

Lower Frequency Limit	Upper Frequency Limit	Center Frequency
* 6 765 kHz	6 795 kHz	6 780 kHz
13 553 kHz	13 567 kHz	13 560 kHz
26 957 kHz	27 283 kHz	27 120 kHz
40.66 MHz	40.70 MHz	40.68 MHz
902 MHz	928 MHz	915 MHz
2 400 MHz	2 500 MHz	2 450 MHz
5 725 MHz	5 875 MHz	5 800 MHz
24 GHz	24.25 GHz	24.125 GHz
* 61 GHz	61.5 GHz	61.25 GHz
* 122 GHz	123 GHz	122.5 GHz
* 244 GHz	246 GHz	245 GHz

DOCUMENTATION

Telecommunications Policy Documents

Telecommunications policy documents are issued from time to time as a record of decisions resulting from various policy initiatives and reviews undertaken by the department. As a principle, these policies are developed in consultation with the public, by means of the release of discussion papers and policy proposals for public comment, notice of which is usually given in the Canada Gazette. The policy documents often form the basis for certain initiatives that are subsequently implemented in operational and technical procedures or regulations.

At appropriate periods, the department produces an index listing the currently valid documents. Copies of the index and associated policy documents in English and French may be obtained from the following:

Information Services
Department of Communications
300 Slater Street
Ottawa, Ontario
K1A 0C8

or

The Regional Director
Department of Communications
Vancouver, Winnipeg, Toronto, Montreal or Moncton

Technical, Procedural and Regulatory Documents

The department's procedures, standards, specifications and guidelines are contained in a series of documents as described hereunder. At appropriate periods, the department produces an index listing the currently valid documents. Copies of the index and associated documents in English or French may be obtained from the following:

(a) The Director General
Engineering Programs Branch
Department of Communications
300 Slater Street
Ottawa, Ontario
K1A 0C8

or
for broadcasting documents

The Director General
Broadcasting Regulation Branch
Department of Communications
300 Slater Street
Ottawa, Ontario
K1A 0C8

or

(b) The Regional Director
Department of Communications
Vancouver, Winnipeg, Toronto, Montreal or Moncton

Radio Standards Specifications, Radio Standards Procedures, Radio Inductive Interference Specifications, Standard Radio System Plans, Telecommunications Regulatory Circulars and Broadcast Procedures, Rules and Specifications are issued under the authority of the Minister of Communications. They are prepared by the department's Spectrum Management Sector in conjunction with comments received from representatives of industry and the public. The procedure for the promulgation of Radio Standards Specifications is set forth in Radio Standards Procedure 102.

Radio Standards Procedures are documents that provide information and procedures concerning departmental services such as how to apply for a licence, the promulgation of Radio Standards Specifications and the approval of radio equipment.

Radio Standards Specifications Final (F) A Radio Standards Specification is a regulatory document that sets forth the minimum performance standards required for the type-approval of radio transmitters and receivers in Canada. After the effective date of a specification, all equipment to which the specification applies must be type-approved in accordance with the standards contained therein, prior to licensing. The procedure for obtaining full or provisional type-approval of equipment for licensing is set forth in Radio Standards Procedure 100.

Radio Standards Specification, Provisional (P) In order to expedite the licensing of certain classes of radio equipment for which a technical standard is urgently required, it is occasionally necessary to issue a 'Provisional' Radio Standards Specification. These specifications are equivalent to a final specification except for those 'provisional' parameters in which the methods of measurement or minimum standards have not been firmly established and such parameters are applied with judgement. However, it is emphasized that all other requirements are fully applied.

Radio Standards Specification, Draft (D) These are released for advance information and public comment only; manufacturers are cautioned that equipment designed to meet a draft specification may have to be re-designed or modified to meet the specification as it is issued in final or provisional form at a later date. A copy of each draft specification is sent to the Radio Advisory Board of Canada (RABC) for their comments and recommendations. Also, at the time of release of a draft specification to the public, a Notice is published in the Canada Gazette inviting comments from interested parties either through an association or individually. Certain draft specifications may be used by the department as guides in establishing technical acceptability of equipment that is not presently covered by a specific effective Radio Standards Specification.

Standard Radio Systems Plans (S.R.S.P.) These are engineering and regulatory documents that detail the technical requirements and preferred frequency channelling arrangements for VHF, UHF and microwave systems. Technical parameters and economic considerations that promote efficient spectrum utilization are considered in the evaluation for technical acceptability of radio systems.

Guidelines are also available in certain microwave bands for which Standard Radio System Plans have not been developed. These documents indicate the preferred frequency channel arrangement and the associated growth pattern.

Telecommunications Regulatory Circulars (TRCs) Telecommunications Regulatory Circulars provide information on a diversity of subjects and are intended for the guidance of those actively engaged in telecommunications in Canada.

Broadcast Procedures, Rules and Specifications These are documents that contain all information required for the preparation and submission of applications for Technical Construction and Operating Certificates (TC & OCs). These certifications, issued by the Minister of Communications under the Radio Act, are a mandatory requirement for the issue of a Broadcast licence by the Canadian Radio-television and Telecommunications Commission (CRTC).

The foregoing publications are modified from time to time in keeping with the art of telecommunications and it is therefore suggested that interested persons should consult the nearest office of the Department of Communications, to ascertain which publication is still current.

INTERNATIONAL FOOTNOTES

The following is a current listing of all footnotes contained in the International Table of Frequency Allocations. It should be noted that some of the international footnotes applicable to Canada have been suppressed in the Canadian Allocation Table in favour of a specific Canadian footnote which incorporates the ITU provisions and responds to specific Canadian spectrum requirements. In addition, other Canadian footnotes have been developed to respond to such domestic requirements.

The symbol *Mob-83* indicates an addition, modification or deletion of a Provision, Appendix, Resolution or Recommendation by the World Administrative Radio Conference for the Mobile Services, Geneva, 1983. In the case of a deletion the symbol SUP is also used.

444 Administrations authorizing the use of frequencies below 9 kHz shall ensure that no harmful interference is caused thereby to the services to which the bands above 9 kHz are allocated (see No. 1816).

445 Administrations conducting scientific research using frequencies below 9 kHz are urged to advise other administrations that may be concerned in order that such research may be afforded all practicable protection from harmful interference.

446 Additional allocation: in Bulgaria, Hungary, Poland, the German Democratic Republic, Czechoslovakia and the U.S.S.R., the band 14-17 kHz is also allocated to the radionavigation service on a permitted basis.

447 The stations of services to which the bands 14-19.95 kHz and 20.05-70 kHz and in Region 1 also the bands 72-84 kHz and 86-90 kHz are allocated may transmit standard frequency and time signals. Such stations shall be afforded protection from harmful interference. In Bulgaria, Hungary, Mongolia, Poland, Czechoslovakia and the U.S.S.R., the frequencies 25 kHz and 50 kHz will be used for this purpose under the same conditions.

448 The use of the bands 14-19.95 kHz, 20.05-70 kHz, 70-90 kHz (72-84 kHz and 86-90 kHz in Region 1) and 90-110 kHz by the maritime mobile service is limited to coast radiotelegraph stations (A1A and F1B only). Exceptionally, the use of class J2B or J7B emissions is authorized subject to the necessary bandwidth not exceeding that normally used for class A1A or F1B emission in the bands concerned.

449 Additional allocation: in Bulgaria, Hungary, Poland, the German Democratic Republic, Czechoslovakia and the U.S.S.R., the band 67-70 kHz is also allocated to the radionavigation service on a permitted basis.

450 Different category of service: in Bangladesh, Iran and Pakistan, the allocation of the bands 70-72 kHz and 84-86 kHz to the fixed and maritime mobile services is on a primary basis (see No. 425).

451 The use of the bands 70-90 kHz (70-86 kHz in Region 1) and 110-130 kHz (112-130 kHz in Region 1) by the radionavigation service is limited to continuous wave systems.

452 In Region 2, the establishment and operation of stations in the maritime radionavigation service in the bands 70-90 kHz and 110-130 kHz shall be subject to agreement obtained under the procedure set forth in Article 14 with administrations whose services, operating in accordance with the Table, may be affected. However, stations of the fixed, maritime mobile and radiolocation services shall not cause harmful interference to stations in the maritime radionavigation service established under such agreements.

453 Administrations which operate stations in the radionavigation service in the band 90-110 kHz are urged to coordinate technical and operating characteristics in such a way as to avoid harmful interference to the services provided by these stations.

454 Only classes A1A or F1B, A2C, A3C, F1C, F3C emissions are authorized for stations of the fixed service in the bands allocated to this service between 90 kHz and 160 kHz (148.5 kHz in Region 1) and for stations of the maritime mobile service in the bands allocated to this service between 110 kHz and 160 kHz (148.5 kHz in Region 1). Exceptionally, class J2B or J7B emissions are also authorized in the bands between 110 kHz and 160 kHz (148.5 kHz in Region 1) for stations of the maritime mobile service.

455 Different category of service: in Bangladesh, Iran and Pakistan, the allocation of the bands 112-117.6 kHz and 126-129 kHz to the fixed and maritime mobile services is on a primary basis (see No. 425).

456 Different category of service: in the Federal Republic of Germany, the allocation of the band 115-117.6 kHz to the fixed and maritime mobile services is on a primary basis (see No. 425) and to the radionavigation service on a secondary basis (see No. 424).

457 Additional allocation: in Bulgaria, Hungary, Mongolia, Poland, the German Democratic Republic, Roumania, Czechoslovakia and the U.S.S.R., the band 130-148.5 kHz is also allocated to the radionavigation service on a secondary basis. Within and between these countries this service shall have an equal right to operate.

458 In Region 1, the change of the band limits from 150 kHz and 285 kHz to 148.5 kHz and 283.5 kHz respectively shall take place on 1 February 1986 for the lower limit and 1 February 1990 for the upper limit (see Resolution 500).

459 In the Region 2 polar areas (north of 60° N and south of 60° S), which are subject to auroral disturbances, the aeronautical fixed service is the primary service in the band 160-190 kHz.

460 Alternative allocation: in Angola, Botswana, Burundi, the Congo, Malawi, Rwanda, South Africa and Zaire, the band 160-200 kHz is allocated to the fixed service on a primary basis.

461 Additional allocation: in Somalia, the band 200-255 kHz is also allocated to the aeronautical radionavigation service on a primary basis.

462 Alternative allocation: in Angola, Botswana, Burundi, Cameroon, the Central African Republic, the Congo, Ethiopia, Kenya, Lesotho, Madagáscar, Malawi, Mozambique, Namibia, Nigeria, Oman, Rwanda, South Africa, Swaziland, Tanzania, Chad, Zaire, Zambia and Zimbabwe, the band 200-283.5 kHz is allocated to the aeronautical radionavigation service on a primary basis.

463 Different category of service: in Sudan and Yemen (P.D.R. of), the allocation of the band 255-283.5 kHz to the aeronautical radionavigation service is on a primary basis (see No. 425).

464 Alternative allocation: in Tunisia, the band 255-283.5 kHz is allocated to the broadcasting service on a primary basis.

465 Norwegian stations of the fixed service situated in northern areas (north of 60° N) subject to auroral disturbances are allowed to continue operation on four frequencies in the bands 283.5-490 kHz and 510-526.5 kHz.

466 In the band 285-325 kHz (283.5-325 kHz in Region 1), in the maritime radionavigation service, radiobeacon stations may also transmit supplementary navigational information using narrow-band techniques, on condition that the prime function of the beacon is not significantly degraded.

467 Different category of service: in the U.S.S.R. and the Black Sea areas of Bulgaria, Roumania and Turkey, the allocation of the band 315-325 kHz to the maritime radionavigation service is on a primary basis (see No. 425) under the following conditions:

a) in the Black Sea and White Sea areas, the maritime radionavigation service is the primary service and the aeronautical radionavigation service is the permitted service;

b) in the Baltic Sea area, the assignment of frequencies in this band to new stations in the maritime or aeronautical radionavigation services shall be subject to prior consultation between the administrations concerned.

468 The frequency 410 kHz is designated for radio direction-finding in the maritime radionavigation service. The other radionavigation services to which the band 405-415 kHz is allocated shall not cause harmful interference to radio direction-finding in the band 406.5-413.5 kHz.

469 Additional allocation: in Afghanistan, Australia, China, the Overseas French Territories of Region 3; India, Japan and Papua New Guinea, the band 415-495 kHz is also allocated to the aeronautical radionavigation service on a permitted basis.

470 The use of the bands 415-495 kHz and 505-526.5 kHz (505-510 kHz in Region 2) by the maritime mobile service is limited to radiotelegraphy.

471 Mob-83 The bands 490-495 kHz and 505-510 kHz shall be subject to the provisions of No. 3018 until the entry into force of the reduced guard-band in accordance with Resolution No. 206 (Mob-83).

472 Mob-83 The frequency 500 kHz is an international distress and calling frequency for radiotelegraphy. The conditions for its use are prescribed in Articles 38 and 60.

472A Mob-83 The frequency 490 kHz is used exclusively for distress and safety calls in the shore-to-ship direction employing digital selective calling techniques. The conditions for the use of this frequency are prescribed in Article 38. Additional conditions concerning the use of this frequency are given in Resolution No. 206 (Mob-83).

473 In Region 1, in the band 505-526.5 kHz, the administrations which operate stations of the aeronautical radionavigation service shall take the technical steps necessary to avoid harmful interference to the maritime mobile service.

474 Mob-83 The conditions for the use of the frequency 518 kHz by the maritime mobile service are prescribed in Article 38, see Resolution No. 318 (Mob-83).

475 In the band 515.5-526.5 kHz, Austria may continue to operate only those broadcasting stations listed in Additional Protocol III to the Final Acts of the Regional Administrative LF/MF Broadcasting Conference (Regions 1 and 3), Geneva 1975. This operation is allowed until the entry into force of a revision of the Geneva Plan, 1975, and subject to not causing harmful interference to the maritime mobile and aeronautical radionavigation services.

476 Additional allocation: in the United Kingdom, the band 519.5-526.5 kHz is also allocated to the broadcasting service on a secondary basis for the transmission of public utility information.

477 In Region 2, in the band 525-535 kHz the carrier power of broadcasting stations shall not exceed 1 kW during the day and 250 W at night.

478 Additional allocation: in Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe, the band 526.5-535 kHz is also allocated to the mobile service on a secondary basis.

479 Additional allocation: in China, the band 526.5-535 kHz is also allocated to the aeronautical radionavigation service on a secondary basis.

480 In Region 2, the use of the band 1605-1705 kHz by stations of the broadcasting service shall be subject to a plan to be established by a regional administrative radio conference (see Recommendation 504).

481 In Region 2, until the dates decided by the regional administrative radio conference referred to in No. 480, the band 1605-1705 kHz is allocated to the fixed, mobile and aeronautical radionavigation services on a primary basis and to the radiolocation service on a secondary basis (see Recommendation 504).

482 Additional allocation: in Australia, Indonesia, New Zealand, the Philippines, Singapore, Sri Lanka and Thailand, the band 1606.5-1705 kHz is also allocated to the broadcasting service on a secondary basis.

483 Different category of service: in Bulgaria, Hungary, Mongolia, Nigeria, Poland, the German Democratic Republic, Chad, Czechoslovakia and the U.S.S.R., the allocation of the bands 1606.5-1625 kHz, 1635-1800 kHz and 2107-2160 kHz to the fixed and land mobile services is on a primary basis (see No. 425).

484 Some countries of Region 1 use radiodetermination systems in the bands 1606.5-1625 kHz, 1635-1800 kHz, 1850-2160 kHz, 2194-2300 kHz, 2502-2850 kHz and 3500-3800 kHz. The establishment and operation of such systems are subject to agreement obtained under the procedure set forth in Article 14. The radiated mean power of these stations shall not exceed 50 W.

485 Additional allocation: in Angola, Bulgaria, Hungary, Mongolia, Nigeria, Poland, the German Democratic Republic, Chad, Czechoslovakia and the U.S.S.R., the bands 1625-1635 kHz, 1800-1810 kHz and 2160-2170 kHz are also allocated to the fixed and land mobile services on a primary basis subject to agreement obtained under the procedure set forth in Article 14.

486 In Region 1, in the bands 1625-1635 kHz, 1800-1810 kHz and 2160-2170 kHz (except in the countries listed in No. 485 and those listed in No. 499 for the band 2160-2170 kHz) existing stations in the fixed and mobile, except aeronautical mobile, services (and stations of the aeronautical mobile (OR) service in the band 2160-2170 kHz) may continue to operate on a primary basis until satisfactory replacement assignments have been found and implemented in accordance with Resolution 38.

487 In Region 1, the establishment and operation of stations of the radiolocation service in the bands 1625-1635 kHz, 1800-1810 kHz and 2160-2170 kHz shall be subject to agreement obtained under the procedure set forth in Article 14 (see also No. 486). The radiated mean power of radiolocation stations shall not exceed 50 W. Pulse systems are prohibited.

488 In the Federal Republic of Germany, Denmark, Finland, Hungary, Ireland, Israel, Jordan, Malta, Norway, Poland, the German Democratic Republic, the United Kingdom, Sweden, Czechoslovakia and the U.S.S.R., administrations may allocate up to 200 kHz to their amateur service in the bands 1715-1800 kHz and 1850-2000 kHz. However, when allocating the bands within this range to their amateur service, administrations shall, after prior consultation with administrations of neighbouring countries, take such steps as may be necessary to prevent harmful interference from their amateur service to the fixed and mobile service of other countries. The mean power of any amateur station shall not exceed 10 W.

489 In Region 2, Loran stations operating in the band 1800-2000 kHz shall cease operation by 31 December 1982. In Region 3, the Loran system operates either on 1850 kHz or 1950 kHz, the bands occupied being 1825-1875 kHz and 1925-1975 kHz respectively. Other services to which the band 1800-2000 kHz is allocated may use any frequency therein on condition that no harmful interference is caused to the Loran systems operating on 1850 kHz or 1950 kHz.

490 Alternative allocation: in the Federal Republic of Germany, Angola, Austria, Belgium, Bulgaria, Cameroon, the Congo, Denmark, Egypt, Spain, Ethiopia, France, Greece, Italy, the Lebanon, Luxembourg, Malawi, the Netherlands, Portugal, Syria, the German Democratic Republic, Somalia, Tanzania, Tunisia, Turkey and the U.S.S.R, the band 1810-1830 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

491 Additional allocation: in Saudi Arabia, Iraq, Israel, Libya, Poland, Roumania, Chad, Czechoslovakia, Togo and Yugoslavia, the band 1810-1830 kHz is also allocated to the fixed and mobile except aeronautical mobile, services on a primary basis.

492 In Region 1, the use of the band 1810-1850 kHz by the amateur service is subject to the condition that satisfactory replacement assignments have been found and implemented in accordance with Resolution 38, for frequencies to all existing stations of the fixed and mobile, except aeronautical mobile, services operating in this band (except for the stations of the countries listed in Nos. 490, 491 and 493). On completion of satisfactory transfer, the authorization to use the band 1810-1830 kHz by the amateur service in countries situated totally or partially north of 40° N shall be given only after consultation with the countries mentioned in Nos. 490 and 491 to define the necessary steps to be taken to prevent harmful interference between amateur stations and stations of other services operating in accordance with Nos. 490 and 491.

493 Alternative allocation: in Burundi and Lesotho, the band 1810-1850 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

494 Alternative allocation: in Argentina, Bolivia, Chile, Mexico, Paraguay, Peru, Uruguay and Venezuela, the band 1850-2000 kHz is allocated to the fixed, mobile except aeronautical mobile, radiolocation and radionavigation services on a primary basis.

495 In Region 1, in making assignments to stations in the fixed and mobile services in the bands 1850-2045 kHz, 2194-2498 kHz, 2502-2625 kHz and 2650-2850 kHz, administrations should bear in mind the special requirements of the maritime mobile service.

496 In Region 1, the use of the band 2025-2045 kHz by the meteorological aids service is limited to oceanographic buoy stations.

497 In Region 2, except in Greenland, coast stations and ship stations using radiotelephony in the band 2065-2107 kHz shall be limited to class R3E or J3E emissions and to peak envelope power not exceeding 1 kW. Preferably, the following carrier frequencies should be used: 2065.0 kHz, 2079.0 kHz, 2082.5 kHz, 2086.0 kHz, 2093.0 kHz, 2096.5 kHz, 2100.0 kHz and 2103.5 kHz.In Argentina, Brazil and Uruguay, the carrier frequencies 2068.5 kHz and 2075.5 kHz are also used for this purpose, while the frequencies within the band 2072-2075.5 kHz are used as provided in No. 4245.

498 In Regions 2 and 3, provided no harmful interference is caused to the maritime mobile service, the frequencies between 2065 kHz and 2107 kHz may be used by stations of the fixed service communicating only within national borders and whose mean power does not exceed 50 W. In notifying the frequencies, the attention of the International Frequency Registration Board should be drawn to these provisions.

499 Additional allocation: in Saudi Arabia, Botswana, Ethiopia, Iraq, Lesotho, Libya, Malawi, Somalia, Swaziland and Zambia, the band 2160-2170 kHz is also allocated to the fixed and mobile, except aeronautical mobile (R), services on a primary basis. The mean power of stations in these services shall not exceed 50 W.

500 Mob-83 The carrier frequency 2182 kHz is an international distress and calling frequency for radiotelephony. The conditions for the use of the band 2173.5-2190.5 kHz are prescribed in Articles 38 and 60.

500A Mob-83 The frequencies 2187.5 kHz, 4188 kHz, 6282 kHz, 8375 kHz, 12563 kHz and 16750 kHz are international distress frequencies for digital selective calling. The conditions for the use of these frequencies are prescribed in Article 38.

500B Mob-83 The frequencies 2174.5 kHz, 4177.5 kHz, 6268 kHz, 8357.5 kHz, 12520 kHz and 16695 kHz are international distress frequencies for narrow-band direct-printing telegraphy. The conditions for the use of these frequencies are prescribed in Article 38.

501 Mob-83 The carrier frequencies 2182 kHz, 3023 kHz, 5680 kHz, 8364 kHz and the frequencies 121.5 MHz, 156.8 MHz and 243 MHz may also be used, in accordance with the procedures in force for terrestrial radiocommunication services, for search and rescue operations concerning manned space vehicles.

The same applies to the frequencies 10003 kHz, 14993 kHz and 19993 kHz, but in each of these cases emissions must be confined in a band of ±3 kHz about the frequency.

502 Alternative allocation: in Belgium, Cyprus, Denmark, Spain, France, Greece, Iceland, Italy, Malta, Norway, the Netherlands, Portugal, the United Kingdom, Singapore, Sri Lanka; Sweden, Turkey and Yugoslavia, the band 2194-2300 kHz is allocated to the maritime mobile service on a primary basis and to the fixed and land mobile services on a permitted basis.

503 For the conditions for the use of the bands 2300-2495 kHz (2498 kHz in Region 1), 3200-3400 kHz, 4750-4995 kHz and 5005-5060 kHz by the broadcasting service, see Nos. 406 to 410, 411 and 2666 to 2673.

504 Alternative allocation: in Belgium, Cyprus, Denmark, Spain, France, Greece, Iraq, Italy, Malta, Norway, the Netherlands, Portugal, the United Kingdom, Sweden, Turkey and Yugoslavia, the band 2502-2625 kHz is allocated to the maritime mobile service on a primary basis and to the fixed and landmobile services on a permitted basis.

505 The carrier (reference) frequencies 3023 kHz and 5680 kHz may also be used, in accordance with Nos. 2980 and 2984 respectively, by stations of the maritime mobile service engaged in coordinated search and rescue operations.

506 Administrations are urged to authorize the use of the band 3155-3195 kHz to provide a common worldwide channel for low power wireless hearing aids. Additional channels for these devices may be assigned by administrations in the bands between 3155 kHz and 3400 kHz to suit local needs. It should be noted that frequencies in the range 3000 kHz to 4000 kHz are suitable for hearing aid devices which are designed to operate over short distances within the induction field.

507 Alternative allocation: in Belgium, Cameroon, Cyprus, the Ivory Coast, Denmark, Egypt, Spain, France, Greece, Iceland, Italy, Liberia, Malta, Norway, the Netherlands, the United Kingdom, Singapore, Sri Lanka, Sweden, Togo, Turkey and Yugoslavia, the band 3155-3200 kHz is allocated to the maritime mobile service on a primary basis and to the fixed and land mobile services on a permitted basis.

508 Additional allocation: in Australia, Brazil, Canada, the United States, Japan, Mexico, New Zealand, Peru and Uruguay, the band 3230-3400 kHz is also allocated to the radiolocation service on a secondary basis.

509 Additional allocation: in Honduras, Mexico, Peru and Venezuela, the band 3500-3750 kHz is also allocated to the fixed and mobile services on a primary basis.

510 For the use of the bands allocated to the amateur service at 3.5 MHz, 7.0 MHz, 10.1 MHz, 14.0 MHz, 18.068 MHz, 21.0 MHz, 24.89 MHz and 144 MHz in the event of natural disasters (see Resolution 640).

511 Additional allocation: in Brazil, the band 3700-4000 kHz is also allocated to the radiolocation service on a primary basis.

512 Alternative allocation: in Argentina, Bolivia, Chile, Ecuador, Paraguay, Peru and Uruguay, the band 3750-4000 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

513 Alternative allocation: in Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe, the band 3900-3950 kHz is allocated to the broadcasting service on a primary basis. The use of this band by the broadcasting service is subject to agreement obtained under the procedure set forth in Article 14 with neighbouring countries having services operating in accordance with the Table.

514 Additional allocation: in Canada, the band 3950-4000 kHz is also allocated to the broadcasting service on a primary basis. The power of broadcasting stations operating in this band shall not exceed that necessary for a national service within the frontier of this country and shall not cause harmful interference to other services operating in accordance with the Table.

515 Additional allocation: in Greenland, the band 3950-4000 kHz is also allocated to the broadcasting service on a primary basis. The power of the broadcasting stations operating in this band shall not exceed that necessary for a national service and shall in no case exceed 5 kW.

516 In Region 3, the stations of those services to which the band 3995-4005 kHz is allocated may transmit standard frequency and time signals.

517 Mob-83 The use of the band 4000-4063 kHz by the maritime mobile service is limited to ship stations using radiotelephony (see No. 4374).

518 In Afghanistan, Argentina, Australia, Botswana, China, India, Swaziland, Chad, and the U.S.S.R., in the bands 4063-4123 kHz, 4130-4133 kHz and 4408-4438 kHz, stations of limited power in the fixed service which are situated at least 600 km from the coast may operate on condition that harmful interference is not caused to the maritime mobile service.

519 On condition that harmful interefence is not caused to the maritime mobile service, the frequencies in the bands 4063-4123 kHz and 4130-4438 kHz may be used exceptionally by stations in the fixed service communicating only within the boundary of the country in which they are located with a mean power not exceeding 50 W.

520 Mob-83 The conditions for the use of the carrier frequencies 4125 kHz and 6215.5 kHz are prescribed in Articles 38 and 60.

521 Different category of service: in the U.S.S.R., the allocation of the band 5130-5250 kHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. 425).

522 On condition that harmful interference is not caused to the maritime mobile service, the bands 6200-6213.5 kHz and 6220.5-6525 kHz may be used exceptionally by stations in the fixed service, communicating only within the boundary of the country in which they are located, with a mean power not exceeding 50 W. At the time of notification of these frequencies, the attention of the International Frequency Registration Board will be drawn to the above conditions.

523 SUP

524 The band 6765-6795 kHz (centre frequency 6780 kHz) is designated for industrial, scientific and medical (ISM) applications. The use of this frequency band for ISM applications shall be subject to special authorization by the administration concerned, in agreement with other administrations whose radiocommunication services might be affected. In applying this provision; administrations shall have due regard to the latest relevant CCIR Recommendations.

525 Different category of service: in Mongolia and the U.S.S.R., the allocation of the band 6765-7000 kHz to the land mobile service is on a primary basis (see No. 425).

526 Additional allocation: in Angola, Iraq, Kenya, Rwanda, Somalia and Togo, the band 7000-7050 kHz is also allocated to the fixed service on a primary basis.

527 Alternative allocation: in Egypt, Ethiopia, Guinea, Libya, Madagascar, Malawi and Tanzania, the band 7000-7050 kHz is allocated to the fixed service on a primary basis.

528 The use of the band 7100-7300 kHz in Region 2 by the amateur service shall not impose constraints on the broadcasting service intended for use within Region 1 and Region 3.

529 In Region 3, the stations of those services to which the band 7995-8005 kHz is allocated may transmit standard frequency and time signals.

529A Mob-83 The conditions for the use of the carrier frequencies 8257 kHz, 12392 kHz and 16522 kHz are prescribed in Articles 38 and 60.

530 On condition that harmful interference is not caused to the broadcasting service frequencies in the bands 9775-9900 kHz, 11650-11700 kHz and 11975-12050 kHz may be used by stations in the fixed service communicating only within the boundary of the country in which they are located, each station not using a total radiated power exceeding 24 dBW.

531 The bands 9775-9900 kHz, 11650-11700 kHz, 11975-12050 kHz, 13600-13800 kHz, 15450-15600 kHz, 17550-17700 kHz and 21750-21850 kHz are allocated to the fixed service on a primary basis subject to the procedure described in Resolution 8. The use of these bands by the broadcasting service shall be subject to provisions to be established by the World Administrative Radio Conference for the planning of HF bands allocated to the broadcasting service (see Resolution 508). Within these bands, the date of commencement of operations in the broadcasting service on a planned channel shall not be earlier than the date of completion of satisfactory transfer, according to the procedures described in Resolution 8, of all assignments to stations in the fixed service operating in accordance with the Table and other provisions of the Radio Regulations, which are recorded in the Master Register and which may be affected by broadcasting operations on that channel.

532 The bands 12230-12330 kHz, 16360-16460 kHz, 17360-17410 kHz, 18780-18900 kHz, 19680-19800 kHz and 22720-22855 kHz are allocated to the fixed service on a primary basis subject to the procedure described in Resolution 8. The use of these bands by the maritime mobile service shall be subject to provisions to be decided by a competent World Administrative Radio Conference. The date of commencement of operations in the maritime mobile service on a frequency in accordance with the above-mentioned provisions shall not be earlier than the date of completion of satisfactory transfer, in accordance with the procedure described in Resolution 8, of all assignments to stations in the fixed service operating in accordance with the Table and other provisions of the Radio Regulations which are recorded in the Master Register and which may be affected by maritime mobile operations on that frequency.

533 In making assignments to stations of other services to which the band 13360-13410 kHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service. (see Nos. 343 and 344 and Article 36).

534 The band 13553-13567 kHz (centre frequency 13560 kHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 1815.

535 Additional allocation: in Afghanistan, China, the Ivory Coast, Iran and the U.S.S.R., the band 14250-14350 kHz is also allocated to the fixed service on a primary basis. Stations of the fixed service shall not use a radiated power exceeding 24 dBW.

536 In Region 3, the stations of those services to which the band 15995-16005 kHz is allocated may transmit standard frequency and time signals.

537 The band 18068-18168 kHz is allocated to the fixed service on a primary basis subject to the procedure described in Resolution 8. The use of this band by the amateur and amateur-satellite services shall be subject to the completion of satisfactory transfer of all assignments to stations in the fixed service operating in this band and recorded in the Master Register, in accordance with the procedure described in Resolution 8.

538 Additional allocation: in the U.S.S.R., the band 18068-18168 kHz is also allocated to the fixed service on a primary basis for use within the boundary of the U.S.S.R. with a peak envelope power not exceeding 1 kW.

539 Alternative allocation: in Bulgaria, Hungary, Mongolia, Poland, Czechoslovakia and the U.S.S.R., the band 21850-21870 kHz is allocated to the aeronautical fixed and the aeronautical mobile (R) services on a primary basis.

540 Additional allocation: in Nigeria, the band 22720-23200 kHz is also allocated to the meteorological aids service (radiosondes) on a primary basis.

541 The use of the band 23350-24000 kHz by the maritime mobile service is limited to inter-ship radiotelegraphy.

542 Additional allocation: in Kenya, the band 23600-24900 kHz is also allocated to the meteorological aids service (radiosondes) on a primary basis.

543 The band 24890-24990 kHz is allocated to the fixed and land mobile services on a primary basis subject to the procedure described in Resolution 8. The use of this band by the amateur and amateur-satellite services shall be subject to the completion of the satisfactory transfer of all assignments to fixed and land mobile stations operating in this band and recorded in the Master Register, in accordance with the procedure described in Resolution 8.

544 The bands 25110-25210 kHz and 26100-26175 kHz are also allocated to the fixed and land mobile services on a primary basis subject to the procedure described in Resolution 8. The use of these bands on an exclusive basis by the maritime mobile service shall be subject to provisions to be decided by a competent World Administrative Radio Conference. The date of commencement of operations in the maritime mobile service on a frequency in accordance with the above-mentioned provisions shall not be earlier than the date of completion of satisfactory transfer, in

accordance with the procedure described in Resolution 8, of all assignments to stations in the fixed and land mobile services operating in accordance with the Table and other provisions of the Radio Regulations recorded in the Master Register and which may be affected by such maritime mobile operations on that frequency.

545 The band 25550-25600 kHz is allocated to the fixed and mobile, except aeronautical mobile, service on a primary basis subject to the procedure described in Resolution 8. The use of this band by the radio astronomy service shall be subject to the completion of the satisfactory transfer of all assignments to stations in the fixed and mobile, except aeronautical mobile, services operating in this band and recorded in the Master Register, in accordance with the procedure described in Resolution 8. The band 25600-25670 kHz is allocated to the broadcasting service on a primary basis, subject to provisions to be established by the World Administrative Radio Conference for the planning of HF bands allocated to the broadcasting service (see Resolution 508). After completion of all the above-mentioned provisions, all emissions capable of causing harmful interference to the radio astronomy service in the band 25550-25670 kHz shall be avoided. The use of passive sensors by other services will also be authorized.

546 The band 26957-27283 kHz (centre frequency 27120 kHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 1815.

547 In making assignments to stations of other services to which the band 37.5-38.25 MHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

548 The band 40.66-40.70 MHz (centre frequency 40.68 MHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 1815.

549 Additional allocation: in Botswana, Burundi, Lesotho, Malawi, Namibia, Rwanda, South Africa, Swaziland, Zaire, Zambia and Zimbabwe the band 41-44 MHz is also allocated to the aeronautical radionavigation service on a primary basis.

550 Additional allocation: in Iran and Japan, the band 41-44 MHz is also allocated to the radiolocation service on a secondary basis.

551 Additional allocation: in France and Monaco, the band 41-47 MHz is also allocated to the broadcasting service on a primary basis until 1 January 1986 and, in the United Kingdom, until 1 January 1987.

552 Additional allocation: in Australia and New Zealand, the band 44-47 MHz is also allocated to the broadcasting service on a primary basis.

553 Additional allocation: in Hungary, Kenya, Mongolia, Czechoslovakia and the U.S.S.R., the band 47-48.5 MHz and 56.5-58 MHz are also allocated to the fixed and land mobile services on a secondary basis.

554 Additional allocation: in Albania, the Federal Republic of Germany, Austria, Belgium, Bulgaria, Denmark, Finland, France, Gabon, Greece, Israel, Italy, the Lebanon, Liechtenstein, Luxembourg, Mali, Malta, Morocco, Nigeria, Norway, the Netherlands, Poland, the German Democratic Republic, the United Kingdom, Senegal, Sweden, Switzerland, Tunisia, Turkey and Yugoslavia, the band 47-68 MHz, and in Roumania, the band 47-58 MHz, are also allocated to the land mobile service on a permitted basis. However, stations of the land mobile service in countries mentioned in connection with each band referred to in this footnote shall not cause harmful interference to or claim protection from, existing or planned broadcasting stations of countries other than those mentioned in connection with the band.

555 Additional allocation: in Angola, Cameroon, the Congo, Madagascar, Mozambique, Somalia, Sudan, Tanzania, Chad and Yemen (P.D.R. of), the band 47-68 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a permitted basis.

556 Alternative allocation: in New Zealand, the band 50-51 MHz is allocated to the fixed, mobile and broadcasting services on a primary basis; the band 53-54 MHz is allocated to the fixed and mobile services on a primary basis.

557 Alternative allocation: in Afghanistan, Bangladesh, Brunei, India, Indonesia, Iran, Malaysia, Pakistan, Singapore and Thailand, the band 50-54 MHz is allocated to the fixed, mobile and broadcasting services on a primary basis.

558 Additional allocation: in Australia, China and the Democratic People's Republic of Korea, the band 50-54 MHz is also allocated to the broadcasting service on a primary basis.

559 Alternative allocation: in Botswana, Burundi, Lesotho, Malawi, Namibia, Rwanda, South Africa, Swaziland, Zaire, Zambia and Zimbabwe, the band 50-54 MHz is allocated to the amateur service on a primary basis.

560 Additional allocation: in New Zealand, the band 51-53 MHz is also allocated to the fixed and mobile services on a primary basis.

561 Additional allocation: in Botswana, Burundi, Lesotho, Malawi, Mali, Namibia, Rwanda, South Africa, Swaziland, Zaire, Zambia and Zimbabwe, the band 54-68 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

562 Different category of service: in the French Overseas Departments in Region 2, Guyana, Jamaica and Mexico, the allocation of the band 54-68 MHz to the fixed and mobile services is on a primary basis (see No. 425).

563 Different category of service: in Cuba, the French Overseas Departments in Region 2, Guyana, Jamaica and Mexico, the allocation of the band 68-72 MHz to the fixed and mobile services is on a primary basis (see No. 425).

564 Alternative allocation: in Bulgaria, Hungary, Poland, Roumania and Czechoslovakia, the band 68-73 MHz is allocated to the broadcasting service on a primary basis and used in accordance with the decisions in the Final Acts of the Special Regional Conference, Geneva, 1960.

565 Alternative allocation: in Mongolia and the U.S.S.R., the bands 68-73 MHz and 76-87.5 MHz are allocated to the broadcasting service on a primary basis. The services to which these bands are allocated in other countries and the broadcasting service in Mogolia and the U.S.S.R. are subject to agreements with the neighbouring countries concerned.

566 Additional allocation: in Australia, China, the Republic of Korea, the Philippines, the Democratic People's Republic of Korea and Western Samoa, the band 68-74 MHz is also allocated to the broadcasting service on a primary basis.

567 Additional allocation: in Bulgaria, Hungary, Mongolia, Poland, Czechoslovakia and the U.S.S.R., the band 73-74 MHz is also allocated to the broadcasting service on a primary basis. The use of this band by the broadcasting service in Bulgaria, Hungary, Mongolia, Poland, Czechoslovakia and the U.S.S.R. is subject to agreement obtained under the procedure set forth in Article 14.

568 In making assignments to stations of other services to which the band 73-74.6 MHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

569 In Region 2, the fixed, mobile and broadcasting services previously authorized in the band 73-74.6 MHz may continue to operate on a non-interference basis to the radio astronomy service until 31 December 1985.

570 Additional allocation: in Colombia, Costa Rica, Cuba, El Salvador, Ecuador, Guatemala, Guyana, Honduras and Nicaragua, the band 73-74.6 MHz is also allocated to the fixed and mobile services on a secondary basis.

571 Additional allocation: in Bulgaria, China, Hungary, Mongolia, Poland, Czechoslovakia and the U.S.S.R., the bands 74.6-74.8 MHz and 75.2-75.4 MHz are also allocated to the aeronautical radionavigation service, on a primary basis, for ground-based transmitters only.

572 The frequency 75 MHz is assigned to aeronautical marker beacons. Administrations shall refrain from assigning frequencies close to the limits of the guardband to stations of other services which, because of their power or geographical position, might cause harmful interference or otherwise place a constraint on marker beacons.

Until 31 December 1989, administrations in Regions 2 and 3 should refrain from assigning frequencies to stations of other services in the bands 74.6-74.8 MHz and 75.2-75.4 MHz.

In the future every effort should be made to improve further the characteristics of airborne receivers and to limit the power of transmitting stations close to the limits 74.8 MHz and 75.2 MHz.

573 Additional allocation: in Western Samoa, the band 75.4-87 MHz is also allocated to the broadcasting service on a primary basis.

574 Additional allocation: in China, the Republic of Korea, Japan, the Philippines and the Democratic People's Republic of Korea, the band 76-87 MHz is also allocated to the broadcasting service on a primary basis.

575 Additional allocation; in Bulgaria, Hungary, Poland, Roumania and Czechoslovakia, the band 76-87.5 MHz is also allocated to the broadcasting service on a primary basis and used in accordance with the decisions contained in the Final Acts of the Special Regional Conference, Geneva, 1960.

576 Different category of service: in the United States, the French Overseas Departments in Region 2, Guyana, Jamaica, Mexico and Paraguay, the allocation of the band 76-88 MHz to the fixed and mobile services is on a primary basis (see No. 425).

577 In Region 3 (except in the Republic of Korea, India, Japan, Malaysia, the Philippines, Singapore and Thailand), the band 79.75-80.25 MHz is also allocated to the radio astronomy service on a primary basis. In making assignments to stations of other services, administrations are urged to take all practicable steps in the band to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

578 Alternative allocation: in Albania, the band 81-87.5 MHz is allocated to the broadcasting service on a primary basis and used in accordance with the decisions contained in the Final Acts of the Special Regional Conference, Geneva, 1960.

579 Additional allocation: in Afghanistan and Australia, the band 85-87 MHz is also allocated to the broadcasting service on a primary basis. The introduction of the broadcasting service in these countries is subject to special agreements between the administrations concerned.

580 Alternative allocation: in New Zealand the band 87-88 MHz is allocated to the land mobile service on a primary basis.

581 Additonal allocation: in the Federal Republic of Germany, Spain, France, Ireland, Italy, Liechtenstein, Monaco, the United Kingdom, Switzerland and Yemen (P.D.R. of), the band 87.5-88 MHz is also allocated to the land mobile service on a permitted basis and subject to agreement obtained under the procedure set forth in Article 14.

582 Additional allocation: in the United Kingdom, the band 97.6-102.1 MHz is also allocated to the land mobile service on a permitted basis until 31 December 1989. The use of this band by the land mobile service is restricted to those stations in operation on 1 January 1980. The withdrawal of land mobile stations will be arranged in consultation with the administrations concerned.

583 In Region 1, existing systems in the fixed and mobile, except aeronautical mobile (R), services may continue to use the band 100-104 MHz on a primary basis until the date of entry into force of the new regional broadcasting agreement referred to in Resolution 510 or 1 January 1985, whichever is the earlier date.

584 Broadcasting stations in the band 100-108 MHz in Region 1 shall be established and operated in accordance with an agreement and associated plan for the band 87.5-108 MHz to be drawn up by a regional broadcasting conference (see Resolution 510). Prior to the date of entry into force of this agreement, broadcasting stations may be introduced subject to agreement between administrations concerned, on the understanding that such an operation shall in no case prejudice the establishment of the plan.

585 Additional allocation: in China, the Republic of Korea, the Philippines and Singapore, the band 100-108 MHz is also allocated to the fixed and mobile services on permitted basis.

586 Alternative allocation: in New Zealand, the band 100-108 MHz is allocated to the land mobile service on a primary basis and to the broadcasting service on a secondary basis.

587 Additional allocation: in Austria, Bulgaria, Hungary, Israel, Kenya, Mongolia, Poland, Syria, the German Democratic Republic, the United Kingdom, Somalia, Czechoslovakia and the U.S.S.R., the band 104-108 MHz is also allocated to the mobile, except aeronautical mobile (R), service on a permitted basis until 31 December 1995 and, thereafter, on a secondary basis.

588 Additional allocation: in Finland and Yugoslavia, the band 104-108 MHz is also allocated to the fixed service on a permitted basis, until 31 December 1995. The effective radiated power of any station shall not exceed 25 W.

589 Additional allocation: in France, Roumania, Sweden, Turkey and Yugoslavia, the band 104-108 MHz is also allocated to the mobile, except aeronautical mobile (R), service on a permitted basis until 31 December 1995.

590 Additional allocation: in Italy, the band 104-108 MHz is also allocated to the land mobile service on a primary basis until the date of entry into force of the new regional broadcasting agreement referred to in Resolution 510 or 1 January 1985, whichever is the earlier date.

591 Subject to agreement obtained under the procedure set forth in Article 14, the band 117.975-137 MHz is also allocated to the aeronautical mobile-satellite (R) service on a secondary basis and on the condition that harmful interference is not caused to the aeronautical mobile (R) service.

592 Mob-83 The bands 121.45-121.55 MHz and 242.95-243.05 MHz are also allocated to the mobile-satellite service for the reception on board satellites of emissions from emergency position-indicating radiobeacons transmitting at 121.5 MHz and 243 MHz (see Nos. 3259 and 3267).

593 Mob-83 In the band 117.975-136 MHz, the frequency 121.5 MHz is the aeronautical emergency frequency and, where required, the frequency 123.1 MHz is the aeronautical frequency auxiliary to 121.5 MHz. Mobile stations of the maritime mobile service may communicate on these frequencies under the conditions laid down in Article 38 for distress and safety purposes with stations of the aeronautical mobile service.

594 Additional allocation: in Angola, Bulgaria, Hungary, Iran, Iraq, Japan, Mongolia, Mozambique, Papua New Guinea, Poland, the German Democratic Republic, Roumania, Czechoslovakia and the U.S.S.R., the band 132-136 MHz is also allocated to the aeronautical mobile (OR) service on a permitted basis.

595 Until 1 January 1990, the band 136-137 MHz is also allocated to the space operation service (space-to-Earth), meteorological-satellite service (space-to-Earth) and the space research service (space-to-Earth) on a primary basis. The introduction of stations of the aeronautical mobile (R) service shall only occur after that date and shall be effected in accordance with internationally agreed plans for that service. After 1 January 1990, the band 136-137 MHz will also be allocated to the above mentioned space radiocommunication service on a secondary basis (see Recommendation 404).

596 Different category of service: in Afghanistan, Saudi Arabia, Bahrain, Brunei, China, the United Arab Emirates, India, Indonesia, Iran, Iraq, Kuwait, Malaysia, Oman, Pakistan, Qatar, Singapore, Thailand, Yemen A.R. and Yemen (P.D.R. of), the allocation of the band 137-138 MHz to the fixed and mobile, except aeronautical mobile (R), services is on a primary basis (see No. 425).

597 Different category of service: in Israel, Jordan and Syria, the allocation of the band 137-138 MHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No. 425).

598 Different category of service: in Austria, Bulgaria, Egypt, Finland, Greece, Hungary, the Lebanon, Mongolia, Poland, the German Democratic Republic, Roumania, Czechoslovakia, the U.S.S.R. and Yugoslavia, the allocation of the band 137-138 MHz to the aeronautical mobile (OR) service is on a primary basis (see No. 425).

599 Additional allocation: in Australia, the band 137-144 MHz is also allocated to the broadcasting service on a primary basis until that service can be accommodated within regional broadcasting allocations.

600 Additional allocation: in the Federal Republic of Germany, Austria, Belgium, France, Israel, Italy, Liechtenstein, Luxembourg, the United Kingdom, Sweden, Switzerland and Czechoslovakia, the bands 138-143.6 MHz and 143.65-144 MHz are also allocated to the space research service (space-to-Earth) on a secondary basis.

601 Additional allocation: in the Federal Republic of Germany, Saudi Arabia, Austria, Bahrain, Belgium, Denmark, the United Arab Emirates, Spain, Finland, Greece, Ireland, Israel, Kenya, Kuwait, Liechtenstein, Luxembourg,Mali, Malta, Norway, the Netherlands, Qatar, the United Kingdom, Sweden, Switzerland, Somalia, Tanzania, Tunisia, Turkey and Yugoslavia, the band 138-144 MHz is also allocated to the maritime mobile and land mobile services on a primary basis.

602 Alternative allocation: in Angola, Botswana, Burundi, Cameroon, the Central African Republic, the Congo, Gabon, Gambia, Ghana, Guinea, Iraq, Jordan, Lesotho, Liberia, Libya, Malawi, Mozambique, Namibia, Nigeria, Oman, Rwanda, Sierra Leone, South Africa, Swaziland, Chad, Togo, Zaire, Zambia and Zimbabwe, the band 138-144 MHz is allocated to the fixed and mobile services on a primary basis.

603 Additional allocation: in China, the band 138-144 MHz is also allocated to the radiolocation service on a primary basis.

604 Additional allocation: in Ethiopia, Finland, Kenya, Malta, Somalia, Sudan, Tanzania, Yemen A.R. and Yugoslavia, the band 138-144 MHz is also allocated to the fixed service on a primary basis.

605 Additional allocation: in Singapore, the band 144-145 MHz is also allocated to the fixed and mobile services on a primary basis. Such use is limited to systems in operation on or before 1 January 1980, which in any case shall cease by 31 December 1995.

606 Additional allocation: in China, the band 144-146 MHz is also allocated to the aeronautical mobile (OR) service on a secondary basis.

607 Alternative allocation: in Afghanistan, Bangladesh, Cuba, Guyana and India the band 146-148 MHz is allocated to the fixed and mobile services on a primary basis.

608 Subject to agreement obtained under the procedures set forth in Article 14, the band 148-149.9 MHz may be used by the space operation service (Earth-to-space). The bandwidth of an individual transmission shall not exceed ± 25 kHz.

609 Emissions of the radionavigation-satellite service in the bands 149.9-150.05 MHz and 399.9-400.05 MHz may also be used by receiving earth stations of the space research service.

610 In making assignments to stations of other services to which the band 150.05-153 MHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service(see Nos. 343 and 344 and Article 36).

611 Additional allocation: in Australia and India, the band 150.05-153 MHz is also allocated to the radio astronomy service on a primary basis.

612 Additional allocation: in Sweden and Switzerland the band 150.05-153 MHz is also allocated to the aeronautical mobile (OR) service on a secondary basis.

613 The frequency 156.8 MHz is the international distress, safety and calling frequency for the martime mobile VHF radiotelephone service. The conditions for the use of this frequency are contained in Article 38.

In the bands 156-156.7625 MHz, 156.8375-157.45 MHz, 160.6-160.975 MHz and 161.475-162.05 MHz, each administration shall give priority to the maritime mobile service on only such frequencies as are assigned to stations of the maritime mobile service by that administration (see Article 60).

Any use of frequencies in these bands by stations of other services to which they are allocated should be avoided in areas where such use might cause harmful interference to the maritime mobile VHF radiocommunication service.

However, the frequency 156.8 MHz and the frequency bands in which priority is given to the maritime mobile service may be used for radiocommunications on inland waterways subject to agreement between interested and affected administrations and taking into account current frequency usage and existing agreements.

613A Mob-83 In the maritime mobile VHF service the frequency 156.525 MHz is to be used exclusively as from 1 January 1986 for digital selective calling for distress and safety communications. The frequency 156.825 MHz is used exclusively for direct-printing telegraphy in the maritime mobile VHF service for distress and safety purposes. The conditions for the use of these frequencies are prescribed in Article 38 and in Appendix 18.

614 Alternative allocation: in France and Monaco, the band 162-174 MHz is allocated to the broadcasting service on a primary basis until 1 January 1985.

615 Alternative allocation: in Morocco, the band 162-174 MHz is allocated to the broadcasting service on a primary basis. The use of this band shall be subject to agreement with administrations having services, operating or planned, in accordance with the Table which are likely to be affected. Stations in existence on 1 January 1981, with their technical characteristics as of that date, are not affected by such agreement.

616 Additional allocation: in China, the band 163-167 MHz is also allocated to the space operation service (space-to-Earth) on a primary basis subject to agreement obtained under the procedure set forth in Article 14.

617 Additional allocation: in Afghanistan, China and Pakistan, the band 167-174 MHz is also allocated to the broadcasting service on a primary basis. The introduction of the broadcasting service into this band shall be subject to agreement with the neighbouring countries in Region 3 whose services are likely to be affected.

618 Additional allocation: in Japan, the band 170-174 MHz is also allocated to the broadcasting service on a primary basis.

619 Additional allocation: in China, the band 174-184 MHz is also allocated to the space research (space-to-Earth) and the space operation (space-to-Earth) services on a primary basis subject to agreement obtained under the procedure set forth in Article 14. These services shall not cause harmful interference to, or claim protection from, existing or planned broadcasting stations.

620 Different category of service: in Mexico, the allocation of the band 174-216 MHz to the fixed and mobile services is on a primary basis (see No. 425).

621 Additional allocation: in Austria, the Federal Republic of Germany, Belgium, Denmark, Finland, France, Italy, Liechtenstein, Monaco, Norway, the Netherlands, the United Kingdom, Sweden, Switzerland and Yemen (P.D.R. of), the band 174-223 MHz is also allocated to the land mobile service on a permitted basis. However, the stations of the land mobile service shall not cause harmful interference to, nor claim protection from, broadcasting stations, existing or planned, in countries other than those listed in this footnote.

622 Different category of service: in Austria, the Federal Republic of Germany, Belgium, Denmark, Spain, Finland, France, Israel, Italy, Liechtenstein, Luxembourg, Monaco, Norway, the Netherlands, Portugal, the United Kingdom, Sweden, Switzerland and Yemen (P.D.R. of), the band 223-230 MHz is allocated to the land mobile service on a permitted basis (see No. 425). However, the stations of the land mobile service shall not cause harmful interference to, nor claim protection from, broadcasting stations, existing or planned, in countries other than those listed in this footnote.

623 Additional allocation: in the Congo, Ethiopia, Gambia, Guinea, Kenya, Libya, Malawi, Mali, Uganda, Senegal, Sierra Leone, Somalia, Tanzania and Zimbabwe, the band 174-223 MHz is also allocated to the fixed and mobile services on a secondary basis.

624 Additional allocation: in Bangladesh, India, Pakistan and the Philippines, the band 200-216 MHz is also allocated to the aeronautical radionavigation service on a primary basis.

625 Additional allocation: in Australia and Papua New Guinea, the bands 204-208 MHz and 222-223 MHz are also allocated to the aeronautical radionavigation service on a primary basis.

626 Additional allocation: in China, India and Thailand, the band 216-223 MHz is also allocated to the aeronautical radionavigation service on a primary basis and to the radiolocation service on a secondary basis.

627 In Region 2, the band 216-225 MHz is allocated to the radiolocation service on a primary basis until 1 January 1990. On and after 1 January 1990, no new stations in that service may be authorized. Stations authorized prior to 1 January 1990 may continue to operate on a seconday basis.

628 Additional allocation: in Somalia, the band 216-225 MHz is also allocated to the aeronautical radionavigation service on a primary basis, subject to not causing harmful interference to existing or planned broadcasting services in other countries.

629 Additional allocation: in Oman, the United Kingdom and Turkey, the band 216-235 MHz is also allocated to the radiolocation service on a secondary basis.

630 Additional allocation: in Japan, the band 222-223 MHz is also allocated to the aeronatuical radionavigation service on a primary basis and to the radiolocation service on a secondary basis.

631 Different category of service: in Spain and Portugal, the band 223-230 MHz is allocated to the fixed service on a permitted basis (see No. 425). Stations of this service shall not cause harmful interference to, or claim protection from, broadcasting station of other countries, whether existing or planned, that operate in accordance with the Table.

632 Additional allocation: in Saudi Arabia, Bahrain, the United Arab Emirates, Israel, Jordan, Oman, Qatar and Syria, the band 223-235 MHz is also allocated to the aeronautical radionavigation service on a permitted basis.

633 Additional allocation: in Spain and Portugal, the band 223-235 MHz is also allocated to the aeronautical radionavigation service on a permitted basis until 1 January 1990, subject to not causing harmful interference to existing or planned broadcasting stations in other countries.

634 Additional allocation: in Sweden, the band 223-235 MHz is also allocated to the aeronautical radionavigation service on a permitted basis until 1 January 1990, subject to agreement obtained under the procedure set forth in Article 14, and on condition that no harmful interference is caused to existing and planned broadcasting stations in other countries.

635 Alternative allocation: in Botswana, Lesotho, Namibia, South Africa, Swaziland and Zambia, the bands 223-238 MHz and 246-254 MHz are allocated to the broadcasting service on a primary basis subject to agreement obtained under the procedures set forth in Article 14.

636 Alternative allocation: in New Zealand, Western Samoa and the Niue and Cook Islands, the band 225-230 MHz is allocated to the fixed, mobile and aeronautical radionavigation services on a primary basis.

637 Additional allocation: in China, the band 225-235 MHz is also allocated to the radio astronomy service on a secondary basis.

638 Additional allocation: in Nigeria, the band 230-235 MHz is also allocated to the aeronautical radionavigation service on a primary basis, subject to agreement obtained under the procedure set forth in Article 14.

639 Additional allocation: in Yugoslavia, the band 230-235 MHz is also allocated to the aeronautical radionavigation service on a primary basis, until 1 January 1995. The use of this band by the areonautical radionavigation service in Yugoslavia is restricted to the stations in operation by 1 January 1980.

640 Additional allocation: in New Zealand, the band 235-239.5 MHz is also allocated to the aeronautical radionavigation service on a primary basis.

641 Subject to agreement obtained under the procedure set forth in Article 14, the bands 235-322 MHz and 335.4-399.9 MHz may be used by the mobile-satellite service, on condition that stations in this service do not cause harmful interference to those of other services operating or planned to be operated in accordance with the Table.

642 The frequency 243 MHz is the frequency in this band for use by survival craft stations and equipment used for survival purposes.

643 Subject to agreement obtained under the procedure set forth in Article 14, the band 267-272 MHz may be used by administrations for space telemetry in their countries on a primary basis.

644 In making assignments to stations of other services to which the band 322-328.6 MHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

645 Limited to Instrument Landing Systems (glide path).

646 Emissions shall be confined in a band of ± 25 kHz about the standard frequency 400.1 MHz.

647 Additional allocation: in Afghanistan, Saudi Arabia, Bahrain, Bulgaria, Colombia, Costa Rica, Cuba, Egypt, the United Arab Emirates, Ecuador, Hungary, Indonesia, Iran, Iraq, Israel, Kuwait, Liberia, Malaysia, Nigeria, Oman, Pakistan, the Philippines, Poland, Qatar, Syria, the German Democratic Republic, Roumania, Singapore, Somalia, Sri Lanka, Czechoslovakia, Thailand, the U.S.S.R. and Yugoslavia, the band 400.05-401 MHz is also allocated to the fixed and mobile services on a primary basis.

648 Additional allocation: in Canada, the bands 405.5-406 MHz and 406.1-410 MHz are also allocated to the mobile-satellite, except aeronautical mobile-satellite, service (Earth-to-space), on a primary basis, subject to agreement obtained under the procedure set forth in Article 14.

649 Mob-83 The use of the band 406-406.1 MHz by the mobile-satellite service is limited to low-power satellite emergency position-indicating radiobeacons (see also Article 38).

650 In making assignments to stations of other services to which the band 406.1-410 MHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

651 Different category of service: in Australia, the United States, India, Japan and the United Kingdom, the allocation of the bands 420-430 MHz and 440-450 MHz to the radiolocation service is on a primary basis (see No. 425).

652 Additional allocation: in Australia, the United States, Jamaica and the Philippines, the bands 420-430 MHz and 440-450 MHz are also allocated to the amateur service on a secondary basis.

653 Additional allocation: in China, India, the German Democratic Republic, the United Kingdom and the U.S.S.R., the band 420-460 MHz is also allocated to the aeronautical radionavigation service (radio altimeters) on a secondary basis.

654 Different category of service: in France, the allocation of the band 430-434 MHz to the amateur service is on a secondary basis (see No. 424).

655 Different category of service: in Denmark, Libya, Norway and Sweden, the allocation of the bands 430-432 MHz and 438-440 MHz to the radiolocation service is on a secondary basis (see No. 424).

656 Alternative allocation: in Denmark, Norway and Sweden the bands 430-432 MHz and 438-440 MHz are allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

657 Additional allocation: in Finland, Libya and Yugoslavia, the bands 430-432MHz and 438-440 MHz are also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

658 Additional allocation: in Afghanistan, Algeria, Saudi Arabia, Bahrain, Bangladesh, Brunei, Burundi, Egypt, the United Arab Emirates, Ecuador, Ethiopia, Greece, Guinea, India, Indonesia, Iran, Iraq, Israel, Italy, Jordan, Kenya, Kuwait, the Lebanon, Liechtenstein, Libya, Malaysia, Malta, Nigeria, Oman, Pakistan, the Philippines, Qatar, Syria, Singapore, Somalia, Switzerland, Tanzania, Thailand and Togo, the band 430-440 MHz is also allocated to the fixed service on a primary basis and the bands 430-435 MHz and 438-440 MHz are also allocated to the mobile, except aeronautical mobile, service on a primary basis.

659 Additional allocation: in Angola, Bulgaria, Cameroon, the Congo, Gabon, Hungary, Mali, Mongolia, Niger, Poland, the German Democratic Republic, Roumania, Rwanda, Chad, Czechoslovakia and the U.S.S.R., the band 430-440 MHz is also allocated to the fixed service on a primary basis.

660 Different category of service: in Argentina, Colombia, Costa Rica, Cuba, Guyana, Honduras, Panama and Venezuela, the allocation of the band 430-440 MHz to the amateur service is on a primary basis (see No. 425).

661 In Region 1, except in the countries mentioned in No. 662, the band 433.05-434.79 MHz (centre frequency 433.92 MHz) is designated for industrial, scientific and medical (ISM) applications. The use of this frequency band for ISM applications shall be subject to special authorization by the administration concerned, in agreement with other administrations whose radiocommunications services might be affected. In applying this provision, administrations shall have due regard to the latest relevant CCIR Recommendations.

662 In the Federal Republic of Germany, Austria, Liechtenstein, Portugal, Switzerland and Yugoslavia, the band 433.05-434.79 MHz (centre frequency 433.92 MHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services of these countries operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 1815.

663 Additional allocation: in Brazil, France and the French Overseas Department in Region 2, and India, the band 433.75-434.25 MHz is also allocated to the space operation service (Earth-to-space) on a primary basis until 1 January 1990, subject to agreement obtained under the procedure set forth in Article 14. After 1 January 1990, the band 433.75-434.25 MHz will be allocated in the same countries to the same service on a secondary basis.

664 In the bands 435-438 MHz, 1260-1270 MHz, 2400-2450 MHz, 3400-3410 MHz (in Regions 2 and 3 only) and 5650-5670 MHz, the amateur-satellite service may operate subject to not causing harmful interference to other services operating in accordance with the Table (see No. 435). Administrations authorizing such use shall ensure that any harmful interference caused by emissions from a station in the amateur-satellite service is immediately eliminated in accordance with the provisions of No. 2741. The use of the bands 1260-1270 MHz and 5650-5670 MHz by the amateur-satellite service is limited to the Earth-to-space direction.

665 Additional allocation: in Austria, the band 438-440 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

666 Additional allocation: in Canada, New Zealand and Papua New Guinea, the band 440-450 MHz is also allocated to the amateur service on a secondary basis.

667 Different category of service: in Canada, the allocation of the band 440-450 MHz to the radiolocation service is on a primary basis (see No. 425).

668 Subject to agreement obtained under the procedure set forth in Article 14, the band 449.75-450.25 MHz may be used for the space operation service (Earth-to-space) and the space research service (Earth-to-space).

669 In the maritime mobile service, the frequencies 457.525 MHz, 457.550 MHz, 457.575 MHz, 467.525 MHz, 467.550 MHz and 467.575 MHz may be used by on-board communication stations. The use of these frequencies in territorial waters may be subject to the national regulations of the administration concerned. The characteristics of the equipment used shall conform to those specified in Appendix 20.

670 In the territorial waters of Canada, the United States and the Philippines, the preferred frequencies for use by on-board communication stations shall be 457.525 MHz, 457.550 MHz, 457.575 MHz and 457.600 MHz paired, respectively, with 467.750 MHz, 467.775 MHz, 467.800 MHz and 467.825 MHz. The characteristics of the equipment used shall conform to those specified in Appendix 20.

671 Earth exploration-satellite service applications, other than the meteorological-satellite service, may also be used in the bands 460-470 MHz and 1690-1710 MHz for space-to-Earth transmissions subject to not causing harmful interference to stations operating in accordance with the Table.

672 Different category of service: in Afghanistan, Bulgaria, China, Cuba, Hungary, Japan, Mongolia, Poland, Czechoslovakia and the U.S.S.R., the allocation of the band 460-470 MHz to the meteorological-satellite service (space-to-Earth) is on a primary basis (see No. 425) and is subject to agreement obtained under the procedure set forth in Article 14.

673 Additional allocation: in China, the band 470-485 MHz is also allocated to the space research (space-to-Earth) and the space operation (space-to-Earth) services on a primary basis subject to agreement obtained under the procedure set forth in Article 14, subject to not causing harmful interference to existing and planned broadcasting stations.

674 Different category of service: in Mexico and Venezuela, the allocation of the band 470-512 MHz to the fixed and mobile services is on a primary basis (see No. 425), subject to agreement obtained under the procedure set forth in Article 14.

675 Different category of service: in Chile, Colombia, Ecuador, the United States, Guyana and Jamaica, the allocation of the bands 470-512 MHz and 614-806 MHz to the fixed and mobile services is on a primary basis (see No.425), subject to agreement obtained under the procedure set forth in Article 14.

676 Additional allocation: in Burundi, Cameroon, the Congo, Ethiopia, Israel, Kenya, Libya, Senegal, Sudan, Syria and Yemen (P.D.R. of), the band 470-582 MHz is also allocated to the fixed service on a secondary basis.

677 Alternative allocation: in Pakistan, the bands 470-582 MHz and 610-890 MHz are allocated to the broadcasting service on a primary basis.

678 Additional allocation: in Costa Rica, El Salvador, Ecuador, the United States, Guatemala, Guyana, Honduras, Jamaica and Venezuela, the band 512-608 MHz is also allocated to the fixed and mobile services on a primary basis, subject to agreement obtained under the procedure set forth in Article 14.

679 Additional allocation: in India, the band 549.75-550.25 MHz is also allocated to the space operation service (space-to-Earth) on a secondary basis.

680 Additional allocation: in the United Kingdom, the following bands are also allocated to the aeronautical radionavigation service on a primary basis: 582-590 MHz until 31 December 1987; 598-606 MHz until 31 December 1994. All new assignments to stations in the aeronautical radionavigation service in these bands are subject to the agreement of the Administrations of the following countries: The Federal Republic of Germany, Belgium, Denmark, Spain, France, Ireland, Luxembourg, Morocco, Norway and the Netherlands.

681 Additional allocation: in Belgium, the band 582-606 MHz is also allocated to the radionavigation service on a primary basis until 31 December 1984.

682 Additional allocation: in France and Italy, the band 582-606 MHz is also allocated to the radionavigation service on a permitted basis until 1 January 1990.

683 Additional allocation: in Oman, the band 582-606 MHz is also allocated to the radionavigation service on a secondary basis.

684 Additional allocation: in Israel, Libya, Syria and Sudan, the band 582-790 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a secondary basis.

685 Additional allocation: in Denmark and Kuwait, the band 590-598 MHz is also allocated to the aeronautical radionavigation service on a primary basis until 1 January 1995.

686 Additional allocation: in the United Kingdom, the band 590-598 MHz is also allocated to the aeronautical radionavigation service on a primary basis. All new assignments to stations in the aeronautical radionavigation service, including those transferred from the adjacent bands, shall be subject to coordination with the Administrations of the following countries: the Federal Republic of Germany, Belgium, Denmark, Spain, France, Ireland, Luxembourg, Morocco, Norway and the Netherlands.

687 Additional allocation: in the African Broadcasting Area (see Nos. 400 to 403), the band 606-614 MHz is also allocated to the radio astronomy service on a permitted basis.

688 Additional allocation: in China, the band 606-614 MHz is also allocated to the radio astronomy service on a primary basis.

689 In Region 1, except in the African Broadcasting Area (see Nos. 400-403), and in Region 3, the band 608-614 MHz is also allocated to the radio astronomy service on a secondary basis. In making assignments to stations of other services to which the band is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

690 Additional allocation: in India, the band 608-614 MHz is also allocated to the radio astronomy service on a primary basis.

691 Additional allocation: in New Zealand, the band 610-620 MHz is also allocated to the amateur service on a secondary basis.

692 Different category of service: in Costa Rica, El Salvador and Honduras, the allocation of the band 614-806 MHz to the fixed service is on a primary basis (see No. 425), subject to agreement obtained under the procedure set forth in Article 14.

693 Within the frequency band 620-790 MHz, assignments may be made to television stations using frequency modulation in the broadcasting-satellite service subject to agreement between the administrations concerned and those having services, operating in accordance with the Table, which may be affected (see Resolutions 33 and 507). Such stations shall not produce a power flux-density in excess of the value -129 dB (W/m^2) for angles of arrival less than 20° (see Recommendation 705) within the territories of other countires without the consent of the administrations of those countries.

694 Additional allocation: in Bulgaria, Hungary, Mongolia, Poland, the German Democratic Republic, Roumania, Czechoslovakia and the U.S.S.R., the band 645-862 MHz is also allocated to the aeronautical radionavigation service on a permitted basis.

695 Alternative allocation: in Spain and France, the band 790-830 MHz is allocated to the broadcasting service on a primary basis.

696 Alternative allocation: in Greece, Italy, Morocco and Tunisia, the band 790-838 MHz is allocated to the broadcasting service on a primary basis.

697 Additional allocation: in the Federal Republic of Germany, Denmark, Finland, Israel, Liechtenstein, Norway, the Netherlands, Sweden, Switzerland and Yugoslavia, the band 790-830 MHz, and in these same countries and in Spain and France, the band 830-862 MHz are also allocated to the mobile, except aeronautical mobile, service on a primary basis. However, stations of the mobile service in the countries mentioned in connection with each band referred to in this footnote shall not cause harmful interference to, or claim protection from, stations of services operating in accordance with the Table in countries other than those mentioned in connection with the band.

698 Additional allocation: in Austria, the band 790-862 MHz is also allocated to the mobile, except aeronautical mobile, service on a secondary basis.

699 Additional allocation: in Norway and Sweden, the bands 806-890 MHz and 942-960 MHz are also allocated to the mobile-satellite, except aeronautical mobile-satellite, service on a primary basis. The use of this service is limited to operation within national boundaries and subject to agreement obtained under the procedure set forth in Article 14. This service shall not cause harmful interference to services operating in accordance with the Table.

700 Additional allocation: in Region 2, the band 806-890 MHz is also allocated to the mobile-satellite, except aeronautical mobile-satellite, service on a primary basis. The use of this service is intended for operation within national boundaries and subject to agreement obtained under the procedure set forth in Article 14.

701 Additional allocation: in Region 3, the bands 806-890 MHz and 942-960 MHz are also allocated to the mobile-satellite, except aeronautical mobile-satellite, service on a primary basis. The use of this service is limited to operation within national boundaries and subject to agreement obtained under the procedure set forth in Article 14. This service shall not cause harmful interference to services operating in accordance with the Table.

702 Alternative allocation: in Italy, the band 838-854 MHz is allocated to the broadcasting service on a primary basis as from 1 January 1995.

703 In Region 1, in the band 862-960 MHz, stations of the broadcasting service shall be operated only in the African Broadcasting Area (see Nos. 400 to 403) excluding Algeria, Egypt, Libya and Morocco. Such operations shall be in accordance with the Final Acts of the African VHF/UHF Broadcasting Conference, Geneva, 1963.

704 Additional allocation: in Bulgaria, Hungary, Mongolia, Poland, the German Democratic Republic, Roumania, Czechoslovakia and the U.S.S.R., the band 862-960 MHz is also allocated to the aeronautical radionavigation service on a permitted basis until 1 January 1998. Up to this date, the aeronautical radionavigation service may use the band, subject to agreement obtained under the procedure set forth in Article 14. After this date, the aeronautical radionavigation service may continue to operate on a secondary basis.

705 Different category of service: in the United States, the allocation of the band 890-942 MHz to the radiolocation service is on a primary basis (see No. 425) and subject to agreement obtained under the procedure set forth in Article 14.

706 Different category of service: in Australia, the allocation of the band 890-942 MHz to the radiolocation service is on a primary basis (see No. 425).

707 In Region 2, the band 902-928 MHz (centre frequency 915 MHz) is designated for industrial, scientific and medical (ISM) applications. Radio-communication services operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 1815.

708 Different category of service: in the United States, the allocation of the bands 942-947 MHz and 952-960 MHz to the mobile service is on a primary basis (see No. 425) and subject to agreement obtained under the procedure set forth in Article 14.

709 The band 960-1215 MHz is reserved on a worldwide basis for the use and development of airborne electronic aids to air navigation and any directly associated ground-based facilities.

710 Use of the radionavigation-satellite service in the band 1215-1260 MHz shall be subject to the condition that no harmful interference is caused to the radionavigation service authorized under No. 712.

711 Additional allocation: in Afghanistan, Angola, Saudi Arabia, Bahrain, Bangladesh, Cameroon, China, the United Arab Emirates, Ethiopia, Guinea, Guyana, India, Indonesia, Iran, Iraq, Israel, Japan, Jordan, Kuwait, the Lebanon, Libya, Malawi, Morocco, Mozambique, Nepal, Nigeria, Oman, Pakistan, the Philippines, Qatar, Syria, Somalia, Sudan, Sri Lanka, Chad, Thailand, Togo and Yemen (P.D.R. of), the band 1215-1300 MHz is also allocated to the fixed and mobile services on a primary basis.

712 Additional allocation: in Algeria, the Federal Republic of Germany, Austria, Bahrain, Belgium, Benin, Burundi, Cameroon, China, Denmark, the United Arab Emirates, France, Greece, India, Iran, Iraq, Kenya, Liechenstein, Luxembourg, Mali, Mauritania, Norway, Oman, Pakistan, the Netherlands, Portugal, Qatar, Senegal, Somalia, Sudan, Sri Lanka, Sweden, Switzerland, Tanzania, Turkey and Yugoslavia, the band 1215-1300 MHz is also allocated to the radionavigation service on a primary basis.

713 In the bands 1215-1300 MHz, 3100-3300 MHz, 5250-5350 MHz, 8550-8650 MHz, 9500-9800 MHz and 13.4-14.0 GHz, radiolocation stations installed on spacecraft may also be employed for the earth exploration-satellite and space research services on a secondary basis.

714 Additional allocation: in Canada and the United States, the bands 1240-1300 MHz and 1350-1370 MHz are also allocated to the aeronautical radionavigation service on a primary basis.

715 Additional allocation: in Indonesia, the band 1300-1350 MHz is also allocated to the fixed and mobile services on a primary basis.

716 Alternative allocation: in Ireland and the United Kingdom, the band 1300-1350 MHz is allocated to the radiolocation service on a primary basis.

717 The use of the bands 1300-1350 MHz, 2700-2900 MHz and 9000-9200 MHz by the aeronautical radionavigation service is restricted to ground-based radars and to associated airborne transponders which transmit only on frequencies in these bands and only when actuated by radars operating in the same band.

718 In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the spectral line observations of the radio astronomy service from harmful interference in the band 1330-1400 MHz. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

719 In Bulgaria, Hungary, Mongolia, Poland, the German Democratic Republic, Roumania, Czechoslovakia and the U.S.S.R., the existing installation of the radionavigation service may continue to operate in the band 1350-1400 MHz.

720 The bands 1370-1400 MHz, 2640-2655 MHz, 4950-4990 MHz and 15.20-15.35 GHz are also allocated to the space research (passive) and earth exploration-satellite (passive) services on a secondary basis.

721 All emissions in the band 1400-1427 MHz are prohibited.

722 In the bands 1400-1727 MHz, 101-120 GHz and 197-220 GHz, passive research is being conducted by some countries in a programme for the search for intentional emissions of extra-terrestrial origin.

723 In Region 2, in Australia and Papua New Guinea, the use of the band 1435-1535 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile service.

724 Different category of service: in Afghanistan, Saudi Arabia, Bahrain, Bulgaria, Cameroon, Egypt, the United Arab Emirates, France, Hungary, Iran,Iraq, Israel, Kuwait, the Lebanon, Morocco, Mongolia, Oman, Poland, Qatar, Syria, the German Democratic Republic, Roumania, Czechoslovakia, the U.S.S.R., Yemen (P.D.R. of) and Yugoslavia, the allocation of the band 1525-1530 MHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. 425).

725 Additional allocation: in the U.S.S.R., the band 1525-1530 MHz is also allocated to the aeronautical mobile service on a primary basis.

726 The allocation to the maritime mobile-satellite service in the band 1530-1535 MHz shall be effective from 1 January 1990. Up to that date the allocation to the fixed service shall be on a primary basis in Regions 1 and 3.

727 Additional allocation: in Afghanistan, Saudi Arabia, Bahrain, Bangladesh, the Congo, Egypt, the United Arab Emirates, Ethiopia, Iran, Iraq, Israel, Jordan, Kuwait, the Lebanon, Malta, Morocco, Niger, Oman, Pakistan, Qatar, Sudan, Sri Lanka, Syria, Somalia, Chad, Thailand, Togo, Yemen (P.D.R. of) and Zambia, the bands 1540-1645.5 MHz and 1646.5-1660 MHz are also allocated to the fixed service on a secondary basis.

728 The use of the bands 1544-1545 MHz (space-to-Earth) and 1645.5-1646.5 MHz (Earth-to-space) by the mobile-satellite service is limited to distress and safety operations.

729 Transmissions in the band 1545-1559 MHz from terrestrial aeronautical stations directly to aircraft stations, or between aircraft stations, in the aeronautical mobile (R) service are also authorized when such transmissions are used to extend or supplement the satellite-to-aircraft links.

730 Additional allocation: in the Federal Republic of Germany, Austria, Bulgaria, Cameroon, Guinea, Hungary, Indonesia, Libya, Mali, Mongolia, Nigeria, Poland, the German Democratic Republic, Roumania, Senegal, Czechoslovakia and the U.S.S.R., the bands 1550-1645.5 MHz and 1646.5-1660 MHz are also allocated to the fixed service on a primary basis.

731 Alternative allocation: in Sweden, the band 1590-1610 MHz is allocated to the aeronautical radionavigation service on a primary basis.

732 The band 1610-1626.5 MHz is reserved on a worldwide basis for the use and development of airborne electronic aids to air navigation and any directly associated ground-based or satellite-borne facilities. Such satellite use is subject to agreement obtained under the procedure set forth in Article 14.

733 The bands 1610-1626.5 MHz, 5000-5250 MHz and 15.4-15.7 GHz are also allocated to the aeronautical mobile-satellite (R) service on a primary basis. Such use is subject to agreement obtained under the procedure set forth in Article 14.

734 The band 1610.6-1613.8 MHz is also allocated to the radio astronomy service on a secondary basis for spectral line observations. In making assignments to stations of other service to which the band is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

735 Transmissions in the band 1646.5-1660.5 MHz from aircraft stations in the aeronautical mobile (R) service directly to terrestrial aeronautical stations, or between aircraft stations, are also authorized when such transmissions are used to extend or supplement the aircraft-to-satellite links.

736 In making assignments to stations of other services to which the band 1660-1670 MHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

737 Different category of service: in Afghanistan, Saudi Arabia, Bahrain, Benin, Bulgaria, Cameroon, the Central African Republic, the Congo, Cuba, Egypt, the United Arab Emirates, Ethiopia, Hungary, India, Indonesia, Iran, Israel, Kenya, Kuwait, the Lebanon, Malaysia, Mongolia, Oman, Uganda, Pakistan, Poland, Qatar, Syria, the German Democratic Republic, Singapore, Somalia, Sri Lanka, Chad, Thailand, Czechoslovakia, Tunisia, the U.S.S.R, Yemen A.R., Yemen (P.D.R. of) and Yugoslavia, the allocation of the band 1660.5-1668.4 MHz to the fixed and the mobile, except aeronautical mobile, service is on a primary basis until 1 January 1990 (see No. 425).

738 Additional allocation: in Bangladesh, India, Indonesia, Nigeria, Pakistan, Sri Lanka and Thailand, the band 1660.5-1668.4 MHz is also allocated to the meteorological aids service on a secondary basis.

739 In view of the successful detection by radio astronomers of two hydroxyl spectral lines in the region of 1665 MHz and 1667 MHz, administrations are urged to give all practicable protection in the band 1660.5-1668.4 MHz for future research in radio astronomy, particularly by eliminating air-to-ground transmissions in the meteorological aids service in the band 1664.4-1668.4 MHz as soon as practicable.

740 Additional allocation: in Afghanistan, Costa Rica, Cuba, India, Iran, Malysia, Pakistan, Singapore, Sri Lanka and Thailand, the band 1690-1700 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

741 Different category of service: in Saudi Arabia, Austria, Bahrain, Bulgaria, the Congo, Egypt, the United Arab Emirates, Ethiopia, Guinea, Hungary, Iraq, Israel, Jordan, Kenya, Kuwait, the Lebanon, Mauritania, Mongolia, Oman, Poland, Qatar, Syria, the German Democratic Republic, Roumania, Somalia, Tanzania, Czechoslovakia, the U.S.S.R., Yemen A.R., Yemen (P.D.R. of) and Yugoslavia, the allocation of the band 1690-1700 MHz to the fixed and mobile, except aeronautical mobile, service is on a primary basis (see No. 425).

742 Additional allocation: in Australia and Indonesia, the band 1690-1700 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a secondary basis.

743 Additional allocation: in India, Indonesia, Japan and Thailand, the band 1700-1710 MHz is also allocated to the space research service (space-to-Earth) on a primary basis.

744 The band 1718.8-1722.2 MHz is also allocated to the radio astronomy service on a secondary basis for spectral line observations. In making assignments to stations of other services to which the band is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

745 Subject to agreement obtained under the procedure set forth in Article 14 and having particular regard to tropospheric scatter systems, the band 1750-1850 MHz may also be used for space operation (Earth-to-space) and space research (Earth-to-space) services in Region 2, in Afghanistan, Australia, India, Indonesia, Japan and Thailand.

746 Additional allocation: in Bulgaria, Cuba, Hungary, Mali, Mongolia, Poland, the German Democratic Republic, Roumania, Czechoslovakia and the U.S.S.R., the band 1770-1790 MHz is also allocated to the meteorological-satellite service on a primary basis, subject to agreement obtained under the procedure set forth in Article 14.

747 Subject to agreement obtained under the procedure set forth in Article 14, the band 2025-2110 MHz may also be used for Earth-to-space and space-to-space transmissions in the space research, space operation and earth exploration-satellite services. The services using space-to-space transmissions shall operate in accordance with the provisions of Nos. 2557 to 2560 and shall not cause harmful interference to the other space services.

748 Subject to agreement obtained under the procedure set forth in Article 14, the band 2110-2120 MHz may also be used for Earth-to-space transmissions in the space research (deep space) service.

749 Subject to agreement obtained under the procedure set forth in Article 14, the band 2110-2120 MHz may also be used in Japan for the space research (Earth-to-space) and space operation (Earth-to-space) services until 31 December 1990.

750 Subject to agreement obtained under the procedure set forth in Article 14, the band 2200-2290 MHz may also be used for space-to-Earth and space-to-space transmissions in the space research, space operations and earth exploration-satellite services. These services shall operate in accordance with the provisions of Nos. 2557 to 2560; the space-to-space transmissions shall not cause harmful interference to the other space services.

751 In Australia, the United States and Papua New Guinea, the use of the band 2310-2390 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile services.

752 The band 2400-2500 MHz (centre frequency 2450 MHz) is designated for industrial, scientific and medical (ISM) applications. Radio services operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 1815.

753 In France, the band 2450-2550 MHz is allocated on a primary basis to the radiolocation service and on a secondary basis to the fixed and mobile services (see Nos. 424 and 425). Such use is subject to agreement with the administrations having services, operating or planned to operate in accordance with the Table, which may be affected.

754 Subject to agreement obtained under the procedure set forth in Article 14, the band 2500-2535 MHz may also be used in Region 3 for the mobile-satellite (space-to-Earth), except aeronautical mobile-satellite, service for operation limited to within national boundaries.

755 Additional allocation: in Canada, the band 2500-2550 MHz is also allocated to the radiolocation service on a primary basis.

756 Additional allocation: in the United Kingdom, the band 2500-2600 MHz is also allocated to the radiolocation service on a secondary basis.

757 The use of the band 2500-2690 MHz by the broadcasting-satellite service is limited to national and regional systems for community reception and such use shall be subject to agreement obtained under the procedure set forth in Article 14. The power flux-density at the Earth's surface shall not exceed the values given in Nos. 2561 to 6564.

758 Alternative allocation: in the Federal Republic of Germany and Greece, the band 2500-2690 MHz is allocated to the fixed service on a primary basis.

759 Alternative allocation: in Bulgaria and the U.S.S.R., the band 2500-2690 MHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

760 In the design of systems in the broadcasting-satellite service in the bands between 2500 MHz and 2690 MHz, administrations are urged to take all necessary steps to protect the radio astronomy service in the band 2690-2700 MHz.

761 The use of the bands 2500-2690 MHz in Region 2 and 2500-2535 MHz and 2655-2690 MHz in Region 3 by the fixed-satellite service is limited to national and regional systems; such use shall be subject to agreement obtained under the procedure set forth in Article 14, giving particular attention to the broadcasting-satellite service in Region 1. In the direction space-to-Earth, the power flux-density at the Earth's surface shall not exceed the values given in Nos. 2561 to 2564.

762 Administrations shall make all practicable efforts to avoid developing new tropospheric scatter systems in the band 2500-2690 MHz.

763 Subject to agreement obtained under the procedure set forth in Article 14, the band 2500-2690 MHz may be used for tropospheric scatter systems in Region 1.

764 When planning new tropospheric scatter radio-relay links in the band 2500-2690 MHz; all possible measures shall be taken to avoid directing the antennae of these links towards the geostationary-satellite orbit.

765 In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference in the band 2655-2690 MHz. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

766 Subject to agreement obtained under the procedure set forth in Article 14, the band 2655-2690 MHz may also be used in Region 3 for the mobile-satellite (Earth-to-space), except aeronautical mobile-satellite, service for operation limited to within national boundaries.

767 Additional allocation: in the Federal Republic of Germany and Austria, the band 2690-2695 MHz is also allocated to the fixed service on a primary basis. Such use is limited to equipment in operation by 1 January 1985.

768 All emissions in the band 2690-2700 MHz are prohibited, except those provided for by Nos. 767 and 769.

769 Additional allocation: in Afghanistan, Saudi Arabia, Bahrain, Bulgaria, Cameroon, The Central African Republic, the Congo, the Ivory Coast, Cuba, Egypt, the United Arab Emirates, Ethiopia, Gabon, Guinea, Guinea-Bissau, Hungary, Iran, Iraq, Israel, the Lebanon, Malaysia, Malawi, Mali, Morocco, Mauritania, Mongolia, Nigeria, Oman, Pakistan, the Philippines, Poland, Qatar, Syria, the German Democratic Republic, Roumania, Singapore, Somalia,Sri Lanka, Czechoslovakia, Thailand, Tunisia, the U.S.S.R., Yemen A.R., Yemen (P.D.R. of), Yugoslavia, Zaire and Zambia, the band 2690-2700 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. Such use is limited to equipment in operation by 1 January 1985.

770 In the band 2700-2900 MHz, ground-based radars used for meteorological purposes are authorized to operate on a basis of equality with stations of the aeronautical radionavigation service.

771 Additional allocation: in Canada, the band 2850-2900 MHz is also allocated to the maritime radionavigation service, on a primary basis, for use by shore-based radars.

772 In the bands 2900-3100 MHz, 5470-5650 MHz and 9200-9300 MHz, the use of shipborne transponder sytems shall be confined to the subbands 2930-2950 MHz, 5470-5480 MHz and 9280-9300 MHz.

773 The use of the band 2900-3100 MHz by the aeronautical radionavigation service is limited to ground-based radars.

774 In the bands 2900-2920 MHz and 9300-9320 MHz in the maritime radionavigation service, the use of shipborne radars other than those existing on 1 January 1976 is not permitted.

775 In the bands 2920-3100 MHz and 9320-9500 MHz in the maritime radionavigation service, the use of fixed-frequency radar beacons (racons) on land or at sea is not permitted.

776 In the band 3100-3300 MHz, radar beacons (racons) and shipborne radars on merchant ships may operate within the band 3100-3266 MHz.

777 Additional allocation: in Bulgaria, Canada, Cuba, Hungary, Mongolia, Poland, the German Democratic Republic, Roumania, Czechoslovakia and the U.S.S.R., the band 3100-3300 MHz is also allocated to the radionavigation service on a primary basis.

778 In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the spectral line observations of the radio astronomy service from harmful interference in the bands 3260-3267 MHz, 3332-3339 MHz, 3345.8-3352.5 MHz and 4825-4835 MHz. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

779 Additional allocation: in Afghanistan, Saudi Arabia, Bahrain, Bangladesh, China, the Congo, the United Arab Emirates, India, Indonesia, Iran, Iraq, Israel, Japan, Kuwait, the Lebanon, Libya, Malaysia, Oman, Pakistan, Qatar, Syria, Singapore, Sri Lanka and Thailand, the band 3300-3400 MHz is also allocated to the fixed and mobile services on a primary basis. The countries bordering the Mediterranean shall not claim protection for their fixed and mobile services from the radiolocation service.

780 Additional allocation: in Bulgaria, Cuba, Hungary, Mongolia, Poland, the German Democratic Republic, Roumania, Czechoslovakia and the U.S.S.R., the band 3300-3400 MHz is also allocated to the radionavigation service on a primary basis.

781 Additional allocation: in the Federal Republic of Germany, Israel, Nigeria and the United Kingdom, the band 3400-3475 MHz is also allocated to the amateur service on a secondary basis.

782 Different category of service: in Austria, the allocation of the band 3400-3500 MHz to the radiolocation service is on a primary basis (see No. 425), subject to the agreement of the Administrations of the following countries: Hungary, Italy, the German Democratic Republic, Czechoslovakia and Yugoslavia. Such use is limited to ground-based stations. However, this Administration is urged to cease operations by 1985. After this date this Administration shall take all practicable steps to protect the fixed-satellite service and coordination requirements shall not be imposed on the fixed-satellite service.

783 Different category of service: in Indonesia, Japan, Pakistan and Thailand, the allocation of the band 3400-3500 MHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. 425).

784 In Regions 2 and 3, in the band 3400-3600 MHz the radiolocation service is allocated on a primary basis. However, all administrations operating radiolocation systems in this band are urged to cease operations by 1985. Thereafter, administrations shall take all practicable steps to protect the fixed-satellite service and coordination requirements shall not be imposed on the fixed-satellite service.

785 In Denmark, Norway and the United Kingdom, the fixed, radiolocation and fixed-satellite services operate on a basis of equality of rights in the band 3400-3600 MHz. However, these Administrations operating radiolocation systems in this band are urged to cease operations by 1985. After this date these Administrations shall take all practicable steps to protect the fixed-satellite service and coordination requirements shall not be imposed on the fixed-satellite service.

786 In Japan, in the band 3620-3700 MHz the radiolocation service is excluded.

787 Additional allocation: in New Zealand, the band 3700-3770 MHz is also allocated to the radiolocation service on a secondary basis.

788 Additional allocation: in the Federal Republic of Germany, Denmark, Norway and Sweden, the band 4200-4210 MHz is also allocated to the fixed service on a secondary basis.

789 Use of the band 4200-4400 MHz by the aeronautical radionavigation service is reserved exclusively for radio altimeters installed on board aircraft and for the associated transponders on the ground. However, passive sensing in the earth exploration-satellite and space research services may be authorized in this band on a secondary basis (no protection is provided by the radio altimeters).

790 Additional allocation: in China, Iran, Libya, the Philippines and Sri Lanka, the band 4200-4400 MHz is also allocated to the fixed service on a secondary basis.

791 The standard frequency and time signal-satellite service may be authorized to use the frequency 4202 MHz for space-to-Earth transmissions and the frequency 6427 MHz for Earth-to-space transmissions. Such transmissions shall be confined within the limits of $\pm$ 2 MHz of these frequencies and shall be subject to agreement obtained under the procedure set forth in Article 14.

792 Alternative allocation: in Belgium, Norway, the Netherlands and the United Kingdom, the band 4500-4800 MHz is allocated to the fixed and mobile services on a primary basis. Such use shall not impose power flux-density limitations on the fixed-satellite service greater than those given in No. 2566.

793 In the bands 4825-4835 MHz and 4950-4990 MHz, the allocation to the mobile service is restricted to the mobile, except aeronautical mobile service.

794 Different category of service: in Argentina, Australia and Canada, the allocation of the bands 4825-4835 MHz and 4950-4990 MHz to the radio astronomy service is on a primary basis (see No. 425). In making assignments to stations of other services to which these bands are allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

795 In making assignments to stations of other services to which the band 4990-5000 MHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service(see Nos. 343 and 344 and Article 36).

796 The band 5000-5250 MHz is to be used for the operation of the international standard system (microwave landing system) for precision approach and landing. The requirements of this system shall take precedence over other uses of this band.

797 The bands 5000-5250 MHz and 15.4-15.7 GHz are also allocated to the fixed-satellite service and the inter-satellite service, for connection between one or more earth stations at specified fixed points on the Earth and space stations, when these services are used in conjunction with the aeronautical radionavigation and/or aeronautical mobile (R) service. Such use shall be subject to agreement obtained under the procedure set forth in Article 14.

798 Additional allocation: in Austria, Bulgaria, Hungary, Libya, Mongolia, Poland, the German Democratic Republic, Roumania, Czechoslovakia and the U.S.S.R., the band 5250-5350 MHz is also allocated to the radionavigation service on a primary basis.

799 The use of the band 5350-5470 MHz by the aeronautical radionavigation service is limited to airborne radars and associated airborne beacons.

800 Additional allocation: in Afghanistan, Austria, Bulgaria, Hungary, Iran, Mongolia, Poland, the German Democratic Republic, Roumania, Czechoslovakia and the U.S.S.R., the band 5470-5650 MHz is also allocated to the aeronautical radionavigation service on a primary basis.

801 Additional allocation: in the United Kingdom, the band 5470-5850 MHz is also allocated to the land service on a secondary basis. The power limits specified in Nos. 2502, 2505, 2506 and 2507 shall apply in the band 5725-5850 MHz.

802 Between 5600 MHz and 5650 MHz, ground-based radars used for meteorological purposes are authorized to operate on a basis of equality with stations of the maritime radionavigation service.

803 Additional allocation: in Afghanistan, Saudi Arabia, Bahrain, Bangladesh, Cameroon, the Central African Republic, China, the Congo, the Republic of Korea, Egypt, the United Arab Emirates, Gabon, Guineau, India, Indonesia, Iran, Iraq, Israel, Japan, Jordan, Kuwait, the Lebanon, Libya, Madagascar, Malaysia, Malawi, Malta, Niger, Nigeria, Pakistan, the Philippines, Qatar, Syria, Singapore, Sri Lanka, Tanzania, Chad, Thailand and Yemen (P.D.R. of) the band 5650-5850 MHz is also allocated to the fixed and mobile services on a primary basis.

804 Different category of service: in Bulgaria, Cuba, Hungary, Mongolia, Poland, the German Democratic Republic, Czechoslovakia and the U.S.S.R., the allocation of the band 5670-5725 MHz to the space research service is on a primary basis (see No. 425).

805 Additional allocation: in Bulgaria, Cuba, Hungary, Mongolia, Poland, the German Democratic Republic, Czechoslovakia and the U.S.S.R., the band 5670-5850 MHz is also allocated to the fixed service on a primary basis.

806 The band 5725-5875 MHz (centre frequency 5800 MHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 1815.

807 Additional allocation: in the Federal Republic of Germany and in Cameroon, the band 5755-5850 MHz is also allocated to the fixed service on a primary basis.

808 The band 5830-5850 MHz is also allocated to the amateur-satellite service (space-to-Earth) on a secondary basis.

809 In the band 6425-7075 MHz, passive microwave sensor measurements are carried out over the oceans. In the band 7075-7250 MHz, passive microwave sensor measurements are carried out. Administrations should bear in mind the needs of the earth exploration-satellite (passive) and space research (passive) services in their future planning of this band.

810 Subject to agreement obtained under the procedure set forth in Article 14, in Region 2, the band 7125-7155 MHz may be used for Earth-to-space transmissions in the space operation service.

811 Subject to agreement obtained under the procedure set forth in Article 14, the band 7145-7235 MHz may be used for Earth-to-space transmissions in the space research service. The use of the band 7145-7190 MHz is restricted to deep space; no emissions to deep space shall be effected in the band 7190-7235 MHz.

812 The bands 7250-7375 MHz (space-to-Earth) and 7900-8025 MHz (Earth-to-space) may also be used by the mobile-satellite service. The use of these bands by this service shall be subject to agreement obtained under the procedure set forth in Article 14.

813 In the band 8025-8400 MHz, the power flux-density limits specified in No. 2570 shall apply in Regions 1 and 3 to the earth exploration-satellite service.

814 In Region 2, aircraft stations are not permitted to transmit in the band 8025-8400 MHz.

815 Subject to agreement obtained under the procedure set forth in Article 14, the band 8025-8400 MHz may be used for the earth exploration-satellite service (space-to-Earth) in Bangladesh, Benin, Cameroon, China, the Central African Republic, the Ivory Coast, Egypt, France, Guinea, Upper Volta, India, Iran, Israel, Italy, Japan, Kenya, Lybia, Mali, Niger, Pakistan, Senegal, Somalia, Sudan, Sweden, Tanzania, Zaire and Zambia, on a primary basis.

816 In the space research service, the use of the band 8400-8450 MHz is limited to deep space.

817 Different category of service: in Belgium, Israel, Luxembourg, Malaysia, Singapore and Sri Lanka, the allocation of the band 8400-8500 MHz to the space research service is on a secondary basis (see No. 424).

818 Alternative allocation: in the United Kingdom, the band 8400-8500 MHz is allocated to the radiolocation and space research services on a primary basis.

819 Additional allocation: in Saudi Arabia, Bahrain, Bangladesh, Burundi, Cameroon, China, the Congo, Costa Rica, Egypt, the United Arab Emirates, Gabon, Guinea, Guyana, Indonesia, Iran, Iraq, Israel, Jamaica, Kuwait, Libya, Malaysia, Mali, Morocco, Mauritania, Nepal, Niger, Nigeria, Oman, Pakistan, Qatar, Syria, Senegal, Singapore, Somalia, Sri Lanka, Tanzania, Chad, Thailand, Togo and Tunisia, the band 8500-8750 MHz is also allocated to the fixed and mobile services on a primary basis.

820 Additional allocation: in Bulgaria, Hungary, Mongolia, Poland, the German Democratic Republic, Roumania, Czechoslovakia and the U.S.S.R., the band 8500-8750 MHz is also allocated to the land mobile and radionavigation services on a primary basis.

821 The use of the band 8750-8850 MHz by the aeronautical radionavigation service is limited to airborne Doppler navigation aids on a centre frequency of 8800 MHz.

822 Additional allocation: in Algeria, the Federal Republic of Germany, Bahrain, Belgium, China, The United Arab Emirates, France, Greece, Indonesia, Iran, Libya, the Netherlands, Qatar, Sudan and Thailand, the bands 8825-8850 MHz and 9000-9200 MHz are also allocated to the maritime radionavigation service, on a primary basis, for use by shore-based radars only.

823 In the bands 8850-9000 MHz and 9200-9225 MHz, the maritime radionavigation service is limited to shore-based radars.

824 Additional allocation: in Austria, Bulgaria, Cuba, Hungary, Mongolia, Poland, the German Democratic Republic, Roumania, Czechoslovakia and the U.S.S.R., the bands 8850-9000 MHz and 9200-9300 MHz are also allocated to the radionavigation service on a primary basis.

825 The use of the band 9300-9500 MHz by the aeronautical radionavigation service is limited to airborne weather radars and ground-based radars. In addition, ground-based radar beacons in the aeronautical radionavigation service are permitted in the band 9300-9320 MHz on condition that harmful interference is not caused to the maritime radionavigation service. In the band 9300-9500 MHz, ground-based radars used for meteorological purposes have priority over other radiolocation devices.

826 Different category of service: in Afghanistan, Algeria, Saudi Arabia, Austria, Bahrain, Bangladesh, Cameroon, the Republic of Korea, Egypt, the United Arab Emirates, Ethiopia, Guyana, India, Indonesia, Iran, Iraq, Israel, Jamaica, Japan, Jordan, Kuwait, the Lebanon, Liberia, Malaysia, Nigeria, Pakistan, Qatar, Singapore, Somalia, Sudan, Sri Lanka, Sweden, Thailand, Trinidad and Tobago, and Yemen (P.D.R. of), the allocation of the band 9800-10000 MHz to the fixed service is on a primary basis (see No. 425)

827 Additional allocation: in Bulgaria, Hungary, Mongolia, Poland the German Democratic Republic, Roumania, Czechoslovakia and the U.S.S.R., the band 9800-10000 MHz is also allocated to the radionavigation service on a primary basis.

828 The band 9975-10025 MHz is also allocated to the meteorological-satellite service on a secondary basis for use by weather radars.

829 Additional allocation: in Costa Rica, Ecuador, Guatemala and Honduras, the band 10-10.45 GHz is also allocated to the fixed and mobile services on a primary basis.

830 Additional allocation: in the Federal Republic of Germany, Angola, China, Ecuador, Spain, Japan, Kenya, Morocco, Nigeria, Sweden, Tanzania and Thailand, the band 10.45-10.5 GHz is also allocated to the fixed and mobile services on a primary basis.

831 In the band 10.6-10.68 GHz, stations of the fixed and mobile, except aeronautical mobile, services shall be limited to a maximum equivalent isotropically radiated power of 40 dBW and the power delivered to the antenna shall not exceed -3 dBW. These limits may be exceeded subject to agreement obtained under the procedure set forth in Article 14. However, in Afghanistan, Saudi Arabia, Bahrain, Bangladesh, China, the United Arab Emirates, Finland, India, Indonesia, Iran, Iraq, Japan, Kuwait, the Lebanon, Nigeria, Pakistan, the Philippines, Qatar, Syria and the U.S.S.R.,the restrictions on the fixed and mobile except aeronautical mobile, services are not applicable.

832 In making assignments to stations of other services to which the band 10.6-10.68 GHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy services from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

833 All emissions in the band 10.68-10.7 GHz are prohibited, except for those provided for by No. 834.

834 Additional allocation: in Saudi Arabia, Bahrain, Bulgaria, Cameroon, China, Colombia, the Republic of Korea, Costa Rica, Cuba, Egypt, the United Arab Emirates, Ecuador, Hungary, Iran, Iraq, Israel, Japan, Kuwait; the Lebanon, Mongolia, Pakistan, Poland, Qatar, the German Democratic Republic, Roumania, Czechoslovakia, the U.S.S.R. and Yugoslavia, the band 10.68-10.7 GHz is also allocated to the fixed and mobile, except aeronautical mobile, service on a primary basis. Such use is limited to equipment in operation by 1 January 1985.

835 In Region 1, the use of the band 10.7-11.7 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service.

836 In Region 2, in the band 11.7-12.1 GHz, transponders on space stations in the fixed-satellite service may be used additionally for transmissions in the broadcasting-satellite service, provided that such transmissions do not have a maximum e.i.r.p. greater than 53 dBW per television channel and do not cause greater interference or require more protection from interference than the coordinated fixed-satellite service frequency assignments. With respect to the space services, this band shall be used principally for the fixed-satellite service. The upper limit of this band shall be modified in accordance with the decisions of the 1983 regional administrative radio conference for Region 2 (see No. 841).

837 Different category of service: in Canada, Mexico and the United States, the allocation of the band 11.7-12.2 GHz to the fixed service is on a secondary basis (see No. 424).

838 In the band 11.7-12.5 GHz in Regions 1 and 3 the fixed, fixed-satellite, mobile, except aeronautical mobile, and broadcasting services, in accordance with their respective allocations, shall not cause harmful interference to broadcasting-satellite stations operating in accordance with the provisions of Appendix 30.

839 The use of the band 11.7-12.7 GHz in Region 2 by the fixed-satellite and broadcasting-satellite services is limited to national and sub-regional systems and is subject to previous agreement between the administrations concerned and those having services, operating or planned to operate in accordance with the Table, which may be affected (see Articles 11, 13, 14 and Resolution 33).

840 For the use of the band 11.7-12.75 GHz in Regions 1, 2 and 3, see Resolutions 31, 34, 504, 700 and 701.

841 The 1983 regional administrative radio conference for Region 2 will divide the band 12.1-12.3 GHz into two sub-bands. It will allocate the lower sub-band to the fixed-satellite service and the upper sub-band to the broadcasting-satellite, broadcasting, mobile except aeronautical mobile, and fixed services, all services being on a primary basis.

842 Additional allocation: the bands 12.1-12.3 GHz in Brazil and Peru, and 12.2-12.3 GHz in the United States, are also allocated to the fixed service on a primary basis.

843 In the band 12.1-12.7 GHz, the Region 2 space services, existing or planned before the 1983 regional administrative radio conference for Region 2, shall not impose restrictions on the elaboration of the plan for the broadcasting-satellite service in Region 2 and shall be operated under the conditions set forth by that conference.

844 In Region 2, in the band 12.1-12.7 GHz, existing and future terrestrial radiocommunication services shall not cause harmful interference to the space services operating in accordance with the broadcasting-satellite plan to be prepared at the 1983 regional administrative radio conference for Region 2, and shall not impose restrictions on the elaboration of such a plan. The lower limit of this band shall be modified in accordance with the decisions of that conference for Region 2 (see No. 841).

845 In Region 3, the band 12.2-12.5 GHz is also allocated to the fixed-satellite (space-to-Earth) service limited to national and sub-regional systems. The power flux-density limits in No. 2574 shall apply to this frequency band. The introduction of the service in relation to the broadcasting-satellite service in Region 1 shall follow the procedures specified in Article 7 of Appendix 30, with the applicable frequency band extended to cover 12.2-12.5 GHz.

846 In Region 2, in the band 12.3-12.7 GHz, assignments to stations of the broadcasting-satellite service made available in the plan to be established by the 1983 regional administrative radio conference for Region 2 may also be used for transmissions in the fixed-satellite service (space-to-Earth), provided that such transmissions do not cause more interference or require more protection from interference than the broadcasting-satellite service transmissions operating in accordance with that plan. With respect to the space services, this band shall be used principally for the broadcasting- satellite service. The lower limit of this band shall be modified in accordance with the decisions of that conference for Region 2 (see No. 841).

847 The broadcasting-satellite service in the band 12.5-12.75 GHz in Region 3 is limited to community reception with a power flux-density not exceeding -111 dB(W/m^2) as defined in Annex 8 of Appendix 30.

848 Additional allocation: in Algeria, Angola, Saudi Arabia, Bahrain, Cameroon, the Central African Republic, the Congo, the Ivory Coast, Egypt, the United Arab Emirates, Ethiopia, Gabon, Ghana, Guinea, Iraq, Israel, Jordon, Kenya, Kuwait, the Lebanon, Libya, Madagascar, Mali, Morocco, Mongolia, Niger, Nigeria, Qatar, Syria, Senegal, Somalia, Sudan, Chad, Togo, Yemen (P.D.R. of) and Zaire, the band 12.5-12.75 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

849 Additional allocation: in the Federal Republic of Germany, Belgium, Denmark, Spain, Finland, France, Greece, Liechtenstein, Luxembourg, Monaco,Norway, Uganda, the Netherlands, Portugal, Roumania, Sweden, Switzerland, Tanzania, Tunisia and Yugoslavia, the band 12.5-12.75 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a secondary basis.

850 Additional allocation: in Austria, Bulgaria, Hungary, Poland, the German Democratic Republic, Czechoslovakia and the U.S.S.R., the band 12.5-12.75 GHz is also allocated to the fixed service and the mobile, except aeronautical mobile, service on a primary basis. However, stations in these services shall not cause harmful interference to fixed-satellite earth stations of countries in Region 1 other than those mentioned in this footnote. Coordination of these earth stations is not required with stations of the fixed and mobile services of the countries mentioned in this footnote. The power flux-density limit at the Earth's surface given in No. 2574 for the fixed-satellite service shall apply on the territory of the countries mentioned in this footnote.

851 The use of the band 13.25-13.4 GHz by the aeronautical radionavigation service is limited to Doppler navigation aids.

852 Subject to agreement obtained under the procedure set forth in Article 14, the band 13.25-13.4 GHz may also be used by the space research service (Earth-to-space) on a secondary basis.

853 Additional allocation: in Bangladesh, India and Pakistan, the band 13.25-14 GHz is also allocated to the fixed service on a primary basis.

854 Additional allocation: in Afghanistan, Algeria, Angola, Saudi Arabia, Bahrain, Cameroon, the Republic of Korea, Egypt, the United Arab Emirates, Finland, Gabon, Guinea, Indonesia, Iran, Iraq, Israel, Jordan, Kuwait, the Lebanon, Madagascar, Malaysia, Malawi, Mali, Malta, Morocco, Mauritania, Niger, Nigeria, Pakistan, Qatar, Syria, Senegal, Singapore, Sri Lanka, Sudan, Sweden, Chad, Thailand and Tunisia, the band 13.4-14 GHz is also allocated to the fixed and mobile services on a primary basis.

855 Additional allocation: in Austria, Bulgaria, Hungary, Japan, Mongolia, Poland, the German Democratic Republic, Roumania, the United Kingdom, Czechoslovakia and the U.S.S.R., the band 13.4-14 GHz is also allocated to the radionavigation service on a primary basis.

856 The use of the band 14-14.3 GHz by the radionavigation service shall be such as to provide sufficient protection to space stations of the fixed-satellite service (see Recommendation 708).

857 Additional allocation: in Afghanistan, Algeria, Angola, Saudi Arabia, Australia, Bahrain, Bangladesh, Botswana, Cameroon, China, the Republic of Korea, Egypt, the United Arab Emirates, Gabon, Guatemala, Guinea, India, Indonesia, Iran, Iraq, Israel, Japan, Kenya, Kuwait, Lesotho, the Lebanon, Malaysia, Malawi, Mali, Malta, Morocco, Mauritania, Niger, Pakistan, the Philippines, Qatar, Syria, Senegal, Singapore, Somalia, Sudan, Sri Lanka, Swaziland, Tanzania, Chad, Thailand and Yemen (P.D.R. of), the band 14-14.3 GHz is also allocated to the fixed service on a primary basis.

858 The band 14-14.5 GHz may be used, within the fixed-satellite service (Earth-to-space), for feeder links for the broadcasting-satellite service, subject to coordination with other networks in the fixed-satellite service. Such use of feeder links is reserved for countries outside Europe and for Malta.

859 The band 14-14.5 GHz is also allocated to the land mobile-satellite service (Earth-to-space) on a secondary basis.

860 Additional allocation: in the Federal Republic of Germany, Austria, Belgium, Denmark, Spain, Finland, France, Greece, Ireland, Iceland, Italy, Jordan, Libya, Liechtenstein, Luxembourg, Norway, the Netherlands, Portugal, the United Kingdom, Sweden, Switzerland, Turkey and Yugoslavia, the band 14.25-14.3 GHz is also allocated to the fixed service on a primary basis.

861 Additional allocation: in Japan, Pakistan, the United Kingdom and Thailand, the band 14.25-14.3 GHz is also allocated to the mobile, except aeronautical mobile, service on a primary basis.

862 In making assignments to stations of other services to which the band 14.47-14.5 GHz is allocated, administrations are urged to take all practicable steps to protect spectral line observations of the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

863 The use of the band 14.5-14.8 GHz by the fixed-satellite (Earth-to-space) is limited to feeder links for the broadcasting-satellite service. This use is reserved for countries outside Europe and for Malta.

864 All emissions in the band 15.35-15.4 GHz are prohibited, except those provided for by No. 865.

865 Additional allocation: in Afghanistan, Saudi Arabia, Bahrain, Cameroon, Egypt, the United Arab Emirates, Guinea, Iran, Iraq, Israel, Kuwait, the Lebanon, Libya, Pakistan, Qatar, Syria, Somalia and Yugoslavia, the band 15.35-15.4 GHz is also allocated to the fixed and mobile services on a secondary basis.

866 Additional allocation: in Afghanistan, Algeria, Angola, Saudi Arabia, Austria, Bahrain, Bangladesh, Cameroon, Costa Rica, Egypt, El Salvador, the United Arab Emirates, Finland, Guatemala, India, Indonesia, Iran, Kuwait, Libya, Malaysia, Malawi, Malta, Morocco, Mozambique, Nepal, Nicaragua, Oman, Pakistan, Qatar, Singapore, Somalia, Sudan, Sri Lanka, Sweden, Tanzania, Chad, Thailand, Yemen (P.D.R. of) and Yugoslavia, the band 15.7-17.3 GHz is also allocated to the fixed and mobile services on a primary basis.

867 Additional allocation: in Israel, the band 15.7-17.3 GHz is also allocated to the fixed and mobile services on a primary basis. These services shall not claim protection from, or cause harmful interference to services operating in accordance with the Table in countries other than those included in No. 866.

868 Additional allocation: in Afghanistan, Algeria, the Federal Republic of Germany, Angola, Saudi Arabia, Austria, Bahrain, Bangladesh, Cameroon, Costa Rica, El Salvador, the United Arab Emirates, Finland, Guatemala, Honduras, India, Indonesia, Iran, Iraq, Israel, Japan, Kuwait, Libya, Nepal, Nicaragua, Pakistan, Qatar, Sudan, Sri Lanka, Sweden, Thailand and Yugoslavia, the band 17.3-17.7 GHz is also allocated to the fixed and mobile services on a secondary basis. The power limits given in Nos. 2505 and 2508 shall apply provisionally (see Resolution 101).

869 The use of the band 17.3-18.1 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service.

870 The band 18.1-18.3 GHz is also allocated to the meteorological-satellite service (space-to-Earth) on a primary basis. Its use is limited to geostationary satellites and shall be in accordance with the provisions of No. 2578.

871 In making assignments to stations in the fixed and mobile services, administrations are invited to take account of passive sensors in the earth-exploration satellite and space research services operating in the band 18.6-18.8 GHz. In this band, administrations should endeavour to limit as far as possible both the power delivered by the transmitter to the antenna and the e.i.r.p. in order to reduce the risk of interference to passive sensors to the minimum.

872 In assigning frequencies to stations in the fixed-satellite service in the direction space-to-Earth, administrations are requested to limit as far as practicable the power flux-density at the Earth's surface in the band 18.6-18.8 GHz, in order to reduce the risk of interference to passive sensors in the earth exploration-satellite and space research services.

873 Additional allocation: in Afghanistan, Algeria, Angola, Saudi Arabia, Bahrain, Bangladesh, Brazil, Cameroon, China, the Congo, the Republic of Korea, Costa Rica, Egypt, the United Arab Emirates, Gabon, Guatemala, Guinea, India, Indonesia, Iran, Iraq, Israel, Japan, Kenya, Kuwait, Malaysia, Mali, Morocco, Mauritania, Nepal, Niger, Nigeria, Pakistan, the Philippines, Qatar, Syria, Singapore, Somalia, Sudan, Sri Lanka, Tanzania, Chad, Thailand, Togo, Tunisia and Zaire, the band 19.7-21.2 GHz is also allocated to the fixed and mobile services on a primary basis. This additional use shall not impose any limitation on the power flux-density of space stations in the fixed-satellite service.

874 In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the spectral line observations of the radio astronomy service in the band 22.01-22.21 GHz from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

875 In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference in the band 22.21-22.5 GHz. Emissions from space or airborne stations can be particulary serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

876 The use of the band 22.21-22.5 GHz by the earth exploration-satellite (passive) and space research (passive) services shall not impose constraints upon the fixed and mobile, except aeronautical mobile, services.

877 In Regions 2 and 3, the broadcasting-satellite service is authorized in the band 22.5-23 GHz, subject to agreement obtained under the procedure set forth in Article 14.

878 Additional allocation: in Japan, the band 22.5-23 GHz is also allocated to the broadcasting service on a primary basis.

879 In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the spectral line observations of the radio astronomy service in the bands 22.81-22.86 GHz and 23.07-23.12 GHz from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

880 All emissions in the band 23.6-24 GHz are prohibited.

881 The band 24-24.25 GHz (centre frequency 24.125 GHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 1815.

882 The band 29.95-30 GHz may be used for space-to-space links in the earth exploration-satellite service for telemetry, tracking, and control purposes, on a secondary basis.

883 Additional allocation: in Afghanistan, Saudi Arabia, Bahrain, Cameroon, China, the Republic of Korea, the United Arab Emirates, Ethiopia, India, Indonesia, Iran, Iraq, Israel, Japan, Kenya, Kuwait, the Lebanon, Malaysia, Mali, Morocco, Mauritania, Nepal, Pakistan, Qatar, Syria, Singapore, Somalia, Sudan, Sri Lanka, Chad and Thailand, the band 29.5-31 GHz is also allocated to the fixed and mobile services on a secondary basis. The power limits specified in Nos. 2505 and 2508 shall apply.

884 In the band 31-31.3 GHz the power flux-density limits specified in No. 2542 shall apply to the space research service.

885 Different category of service: in Bulgaria, Cuba, Hungary, Mongolia, Poland, the German Democratic Republic, Czechoslovakia and the U.S.S.R., the allocation of the band 31-31.3 GHz to the space research service is on a primary basis (see No. 425).

886 In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference in the band 31.2-31.3 GHz. Emissions from space or airborne stations can be particulary serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

887 All emissions in the band 31.3-31.5 GHz are prohibited.

888 In Regions 1 and 3, in making assignments to stations of other services to which the band 31.5-31.8 GHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (See Nos. 343 and 344 and Article 36).

In Region 2, all emissions in the band 31.5-31.8 GHz are prohibited.

889 Different category of service: in Bulgaria, Egypt, Hungary, Mongolia, Poland, the German Democratic Republic, Roumania, Czechoslovakia and the U.S.S.R., the allocation of the band 31.5-31.8 GHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No. 425).

890 Different category of service: in Australia, Spain and the United States, the allocation of the band 31.8-32.3 GHz to the space research service (deep space) in the space-to-Earth direction is on a primary basis (see No. 425). This use shall not impose power flux-density constraints on the inter-satellite service in the band 32-32.3 GHz.

891 Different category of service: in Bulgaria, Cuba, Hungary, Mongolia, Poland, the German Democratic Republic, Czechoslovakia and the U.S.S.R., the allocation of the band 31.8-32.3 GHz to the space research service is on a primary basis (see No. 425).

892 Subject to agreement obtained under the procedure set forth in Article 14, the band 31.8-33.8 GHz may also be used in Japan for space-to-Earth transmissions in the fixed-satellite service up to 31 December 1990.

893 In designing systems for the inter-satellite and radionavigation services in the band 32-33 GHz, administrations shall take all necessary measures to prevent harmful interference between these two services, bearing in mind the safety aspects of the radionavigation service (see Recommendation 707).

894 Additional allocation: in Afghanistan, Saudi Arabia, Bahrain, Bangladesh, Egypt, the United Arab Emirates, Spain, Finland, Gabon, Guinea, Indonesia, Iran, Iraq, Israel, Kenya, Kuwait, the Lebanon, Libya, Malaysia, Malawi, Mali, Malta, Morocco, Mauritania, Nepal, Niger, Nigeria, Oman, Pakistan, the Philippines, Qatar, Syria, Senegal, Singapore, Somalia, Sudan, Sri Lanka, Sweden, Tanzania, Thailand, Togo, Tunisia, Yemen A.R. and Zaire,the band 33.4-36 GHz is also allocated to the fixed and mobile services on a primary basis.

895 Different category of service: in Australia, Spain and the United States, the allocation of the band 34.2-34.7 GHz to the space research (deep space)(Earth-to-space) service is on primary basis (see No. 425).

896 Different category of service: in Bulgaria, Cuba, Hungary, Poland, Mongolia, the German Democratic Republic, Czechoslovakia and the U.S.S.R., the allocation of the band 34.2-35.2 GHz to the space research service is on a primary basis (see No. 425).

897 Radars located on spacecraft may be operated on a primary basis in the band 35.5-35.6 GHz.

898 In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the spectral line observations of the radio astronomy service in the band 36.43-36.5 GHz from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

899 Subject to agreement obtained under the procedure set forth in Article 14, the band 37-39 GHz may also be used in Japan for Earth-to-space transmissions in the fixed-satellite service up to 31 December 1990.

900 In making assignments to stations of other services to which the band 42.5-43.5 GHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference, especially in the bands 42.77-42.87 GHz, 43.07-43.17 GHz, and 43.37-43.47 GHz, which are used for spectral line observations of silicon monoxide. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

901 The allocation of the spectrum for the fixed-satellite service in the bands 42.5-43.5 GHz and 47.2-50.2 GHz for Earth-to-space transmission is greater than that in the band 37.5-39.5 GHz for space-to-Earth transmission in order to accommodate feeder links to broadcasting satellites. Administrations are urged to take all practicable steps to reserve the band 47.2-49.2 GHz for feeder links for the broadcasting-satellite service operating in the band 40.5-42.5 GHz.

902 In the bands 43.5-47 GHz, 66-71 GHz, 95-100 GHz, 134-142 GHz, 190-200 GHz and 252-265 GHz, stations in the land mobile service may be operated subject to not causing harmful interference to the space radiocommunication services to which these bands are allocated (see No. 435).

903 In the bands 43.5-47 GHz, 66-71 GHz, 95-100 GHz, 134-142 GHz, 190-200 GHz and 252-265 GHz, satellite links connecting land stations at specified fixed points are also authorized when used in conjunction with the mobile-satellite service or the radionavigation-satellite service.

904 The bands 48.94-49.04 GHz and 97.88-98.08 GHz are also allocated to the radio astronomy service on a primary basis for spectral line observations. In making assignments to stations of other services to which these bands are allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particulary serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

905 In the band 48.94-49.04 GHz, all emissions from airborne stations are prohibited.

906 In the bands 51.4-54.25 GHz, 58.2-59 GHz, 64-65 GHz and 72.77-72.91 GHz, radio astronomy observations may be carried out under national arrangements. Administrations are urged to take all practicable steps to protect radio astronomy observations in these bands from harmful interference.

907 In the bands 51.4-54.25 GHz, 58.2-59 GHz, 64-65 GHz, 86-92 GHz, 105-116 GHz and 217-231 GHz, all emissions are prohibited.

908 Additional allocation: in the Federal Republic of Germany, Japan and the United Kingdom, the band 54.25-58.2 GHz is also allocated to the radiolocation service on a primary basis.

909 In the bands 54.25-58.2 GHz, 59-64 GHz, 116-134 GHz, 170-182 GHz and 185-190 GHz, stations in the aeronautical mobile service may be operated subject to not causing harmful interference to the inter-satellite service (see No. 435).

910 In the bands 59-64 GHz and 126-134 GHz, airborne radars in the radiolocation service may be operated subject to not causing harmful interference to the inter-satellite (see No. 435).

911 The band 61-61.5 GHz (centre frequency 61.25 GHz) is designated for industrial, scientific and medical (ISM) applications. The use of this frequency band for ISM applications shall be subject to special authorization by the administration concerned in agreement with other administrations whose radiocommunication services might be affected. In applying this provision administrations shall have due regard to the latest relevant CCIR Recommendations.

912 In the band 78-79 GHz radars located on space stations may be operated on a primary basis in the earth exploration-satellite service and in the space research service.

913 In the band 84-86 GHz, stations in the fixed, mobile and broadcasting services shall not cause harmful interference to broadcasting-satellite stations operating in accordance with the decisions of the appropriate frequency assignment planning conference for the broadcasting-satellite service.

914 The band 93.07-93.27 GHz is also used by the radio astronomy service for spectral line observations. In making assignments to stations of the services to which this band is allocated, administrations are urged to take all practicable steps to protect radio astronomy observations from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

915 The band 119.98-120.02 GHz is also allocated to the amateur service on a secondary basis.

916 The band 122-123 GHz (centre frequency 122.5 GHz) is designated for industrial, scientific and medical (ISM) applications. The use of this frequency band for ISM applications shall be subject to special authorization by the administration concerned in agreement with other administrations whose radiocommunication services might be affected. In applying this provision administrations shall have due regard to the latest relevant CCIR Recommendations.

917 In the band 140.69-140.98 GHz all emissions from airborne stations, and from space stations in the space-to-Earth direction, are prohibited.

918 The bands 140.69-140.98 GHz, 144.68-144.98 GHz, 145.45-145.75 GHz and 146.82-147.12 GHz are also allocated to the radio astronomy service on a primary basis for spectral line observations. In making assignments to stations of other services to which the bands are allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (See Nos. 343 and 344 and Article 36).

919 The bands 150-151 GHz, 174.42-175.02 GHz, 177-177.4 GHz, 178.2-178.6 GHz, 181-181.46 GHz and 186.2-186.6 GHz are also allocated to the radio astronomy service on a secondary basis for spectral line observations. In making assignments to stations of other services to which these bands are allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

920 Additional allocation: in the United Kingdom, the band 182-185 GHz is also allocated to the fixed and mobile services on a primary basis.

921 In the band 182-185 GHz all emissions are prohibited except for those under the provisions of No. 920.

922 The band 244-246 GHz (centre frequency 245 GHz) is designated for industrial, scientific and medical (ISM) applications. The use of this frequency band for ISM applications shall be subject to special authorization by the administration concerned in agreement with other administrations whose radiocommunication services might be affected. In applying this provision administrations shall have due regard to the latest relevant CCIR Recommendations.

923 The bands 250-251 GHz and 262.24-262.76 GHz are also allocated to the radio astronomy service on a primary basis for spectral line observations. In making assignments to stations of other services to which these bands are allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (See Nos. 343 and 344 and Article 36).

924 The band 257.5-258 GHz is also allocated to the radio astronomy service on a secondary basis for spectral line observations. In making assignments to stations of other services to which the band is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

925 In the Federal Republic of Germany, Argentina, Spain, Finland, France, India, Italy, the Netherlands and Sweden, the band 261-265 GHz is also allocated to the radio astronomy service on a primary basis. In making assignments to stations of other services to which the band is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

926 In making assignments to stations of other services to which the band 265-275 GHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference, especially in the bands 265.64-266.16 GHz, 267.34-267.86 GHz and 271.74-272.26 GHz, which are used for spectral line observations. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

927 The frequency band 275-400 GHz may be used by administrations for experimentation with, and development of various active and passive services. In this band a need has been identified for the following spectral line measurements for passive services:

Radio astronomy service: 278-280 GHz and 343-348 GHz;
Space research service (passive) and earth exploration-satellite service (passive): 275-277 GHz, 300-302 GHz, 324-326 GHz, 345-347 GHz, 363-365 GHz and 379-381 GHz.

Future research in this largely unexplored spectral region may yield additional spectral lines and continuum bands of interest to the passive services. Administrations are urged to take all practicable steps to protect these passive services from harmful interference until the next competent world administrative radio conference.

CANADIAN FOOTNOTES

C1 Users of frequencies below 9 kHz shall ensure that no harmful interference is caused to the services to which the bands above 9 kHz are allocated.

C2 Scientific researchers using frequencies below 9 kHz are urged to advise the Department in order that such research may be afforded all practicable protection from harmful interference.

C3 Provided no harmful interference is caused to the maritime mobile service, the frequencies between 2065 kHz and 2107 kHz may be used by stations of the fixed service communicating only within Canada's national borders, and whose mean power does not exceed 50 watts.

C4 Provided no harmful interference is caused to the maritime mobile service, the bands 6200-6213.5 kHz and 6220.5-6525 kHz may be used exceptionally by stations of the fixed service communicating only within Canada's national borders, and whose mean power does not exceed 50 watts.

C5 For the exclusive use of the Government of Canada.

C5A The use of the radiolocation service is limited to Government of Canada shipborne radars. These operations are not permitted on inland waters of Canada.

C6 The band 10100-10150 kHz is allocated to the fixed service on a primary basis worldwide. In Canada, the band is allocated exclusively to the Amateur service. Canadian Amateur operations shall not cause interference to fixed service operations of other administrations and if such interference should occur, the Amateur service may be required to cease operations. The Amateur service in Canada may not claim protection from interference by the fixed service operations of other administrations.

C7 Subject to agreement obtained under the procedure set forth in Article 14, the bands 235-322 MHz and 335.4-399.9 MHz may be used by the mobile-satellite service.

C8 Radio astronomy observations are carried out in the band 322 - 328.6 MHz and such operations will be protected from interference to the extent possible.

C9 The allocation to the mobile-satellite except aeronautical mobile-satellite service (Earth-to-space) on a primary basis in the bands 405.5-406 MHz and 406.1-410 MHz is subject to agreement obtained under the procedure set forth in Article 14.

C10 On the condition that harmful interference is not caused to the mobile or the fixed services, the Department may authorize frequencies between 420 and 430 MHz for use on a non-protected basis by the radiolocation service in coastal and off-shore regions of Canada where such radiolocation operations may not be fully accommodated in the 430-450 MHz frequency band.

C11 Television broadcast stations licensed prior to January 1, 1979, to operate in the frequency band 806-890 MHz (channels 70 to 83) will continue to operate on a primary basis until their reassignment to a lower frequency.

C12 The use of the bands 1435-1530 MHz and 2310-2390 MHz by the aeronautical mobile service for telemetry has priority over other uses in the mobile service.

C13 Government of Canada radars may continue to operate in the band 2550-2690 MHz on a non-interfering basis.

C14 Maritime radionavigation operations in this band are limited to shore based radars.

C15 The allocation to the fixed-satellite and mobile-satellite services in this band are designated for the exclusive use of the Government of Canada.

C16 Users are urged, in their planning of operations in the band 10.7-10.95 GHz for the fixed-satellite service, to give all practicable protection to the passive operations in the adjacent band 10.6-10.7 GHz.

C17 In the band 11.7-12.2 GHz, transponders on space stations in the fixed-satellite service may be used additionally for transmissions in the broadcasting-satellite service, provided that such transmissions do not have a maximum e.i.r.p. greater than 53 dBW per television channel and do not cause greater interference or require more protection from interference than the coordinated fixed-satellite service frequency assignments. With respect to the space services, this band shall be used principally for the fixed-satellite service.

C18 In the band 12.2-12.7 GHz, existing and future terrestrial radiocommunication services shall not cause harmful interference to the space services operating in accordance with the Broadcasting-Satellite Plan prepared at the 1983 Regional Administrative Radio Conference for the Planning of the Broadcasting-Satellite Service in Region 2.

C19 SUP.

C20 In the band 12.2-12.7 GHz, assignments to stations of the broadcasting-satellite service made available in the plan established by the 1983 Regional Administrative Radio Conference for the Planning of the Broadcasting-Satellite Service in Region 2 may be used for transmissions in the fixed-satellite service (space-to-Earth), provided that such transmissions do not cause more interference or require more protection from interference than the broadcasting-satellite service transmissions operating in accordance with that plan. With respect to the space services, this band shall be used principally for the broadcasting-satellite service.

C21 The allocations to the fixed-satellite and mobile-satellite services or a portion of these allocations will be designated for the exclusive use of the Government of Canada.

C22 In the band 164-168 GHz, all emissions are prohibited.

C23 The bands 250-251 GHz and 262.24-262.76 GHz are also allocated to the radioastronomy service on a primary basis for spectral line observations.

C24 In the band 250-252 GHz all emissions are prohibited.

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