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NORTH ATLANTIC COUNCIL
CONSEIL DE L'ATLANTIQUE NORD

NATO UNCLASSIFIED

2 December 2002

ACTION SHEET to PO(2002)167

REQUEST FOR APPROVAL OF THE NATO JOINT CIVIL/MILITARY FREQUENCY AGREEMENT (NJFA) 2002

Action Sheet

Reference: MCM-141-02

On 25 October 2002, under the silence procedure, the Council approved the document at reference outlined in PO(2002)167.

(Signed) L.A.J. Verbruggen
Executive Secretary

NOTE: This Action Sheet is part of, and shall be attached to, PO(2002)167 as the top sheet.

Original: English

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North Atlantic Treaty Organization
Organisation du Traité de l'Atlantique Nord

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18 October 2002 **PO(2002)167**

Silence Procedure ends:
25 October 2002, 16.00 hrs

To: Permanent Representatives (Council)

From: Secretary General

21 OCT. 2002

REQUEST FOR APPROVAL OF THE NATO JOINT CIVIL/MILITARY FREQUENCY AGREEMENT (NJFA), 2002

References: (a) PO(95)188
(b) MCM-141-02

1. Alliance defence capabilities are critically dependent on sufficient access to the radio-frequency spectrum which, however, is a finite natural resource. Worldwide, the demand for radio-frequency spectrum is steadily growing due to technological, market and regulatory developments. Consequently, the scarcity of radio-frequency spectrum is increasing. The traditional spectrum users (inter alia the military) are now competing with global commercial players. In fact, radio-frequency spectrum planning is gaining more and more political visibility.

2. For the last 20 years, NATO military access to the radio-frequency spectrum has been governed by the NATO Joint Civil/Military Frequency Agreement (NJFA) between the civil (non-MOD) and military authorities of the NATO nations. The former version, PO(95)188 (reference (a)), already reflected the political changes in Europe, the new strategic concept of the Alliance and the worldwide technological and commercial developments.

3. The NATO Frequency Management Sub-Committee of the NC3B, a civil-military body, agreed an update of the NJFA. The revised document, NJFA 2002, takes into account the Final Acts of International Telecommunication Union (ITU) World Radiocommunication Conferences (WRC) up to and including the year 2000. It constitutes the renewed joint agreement between the civil and military authorities of the NATO nations on the use of radio-frequency spectrum for military purposes required by NATO forces or in support of NATO.

4. The NC3B endorsed the NJFA 2002 from a C3 point of view.

5. The Military Committee endorsed the NJFA 2002 (reference (b)) from a military point of view and recommended approval by the Council.

6. Accordingly, if I do not hear to the contrary **by 1600 hours on Friday, 25 October 2002** I shall take it that the Council approves the NATO Joint Civil/Military Frequency Agreement 2002, as set out in MCM-141-02.

(Signed) George Robertson

Original: English

NORTH ATLANTIC MILITARY COMMITTEE
COMITE MILITAIRE DE L'ATLANTIQUE NORD
NATO Headquarters
Boulevard Leopold III - B-1110 Bruxelles

10 October 2002 MCM-141-02

SECRETARY GENERAL, NORTH ATLANTIC TREATY ORGANIZATION

NATO JOINT CIVIL AND MILITARY FREQUENCY AGREEMENT (NJFA), 2002

References
A. PO(95)188
B. AC/322-N/0815, 22 Feb 2002
C. IMSWM-164-02 (SD1)

1. Radio-frequency spectrum has become a decisive element in all areas of modern life. Its availability is indispensable in the new era of the global information society. Worldwide, the demand for radio-frequency spectrum is steadily growing due to technological, market and regulatory developments. The consequence is that the scarcity of radio-frequency spectrum is increasing. The traditional spectrum users (inter alia the military) are now competing with global commercial players. More and more, radio-frequency spectrum planning is receiving political visibility.

2. Alliance defence capabilities are critically dependent on sufficient access to the radio-frequency spectrum which, however, is a finite natural resource. For the last 20 years, NATO military access to the radio-frequency spectrum has been governed by the NATO Joint Civil/Military Frequency Agreement (NJFA) between the civil (non-MOD) and military authorities of the NATO nations. The former version, PO(95)188, already reflected the political changes in Europe, the new strategic concept of the Alliance and the worldwide technological and commercial developments.

3. The NATO Frequency Management Sub-Committee of the NC3B, a civil-military body, agreed an update of the NJFA.

4. In each NATO nation the national Civil Telecommunications Administrations are the cognisant governmental bodies responsible for the national prerogative to regulate radio-frequency spectrum. These Authorities are normally part of a ministry (e.g. Ministry of Transport and Communications or Economics) or of an Executive Agency. The Ministries of Defence are not

directly responsible for the regulation of the radio-frequency spectrum in any NATO nation. The military frequency managers in NATO nations only coordinate military use of the frequency spectrum with or through their national Civil Administrations according to specific national laws.

5. The NJFA 2002 was initiated and produced in close cooperation with national Civil Administrations of NATO Nations. This revised document takes into account the Final Acts of International Telecommunication Union (ITU) World Radiocommunication Conferences (WRCs) up to and including the year 2000.

6. The civil authorities of NATO Nations agreed to adopt this document, upon Council approval, as the basis for future radio frequency planning and policy.

7. The NJFA 2002 supersedes the document at reference A.

8. The NC3B endorsed the NJFA 2002 from a C3 point of view.

9. NATO requirements and national military requirements for spectrum access are mainly driven by features of Consultation, Command and Control. This includes support for strategic planning, for the conduct of operations and especially for a large variety of military applications such as fixed, mobile and satellite radiocommunications, radio-navigation, all kinds of radars, aeronautical and weapon system functions, identification, meteorological aids, telemetry and many others.

10. The NJFA 2002 constitutes the renewed joint agreement between the civil and military authorities of the NATO nations on the use of radio-frequency spectrum for military purposes required by NATO forces or in support of NATO.

11. It will continue to be a landmark and to play an important role in both the European and the transatlantic processes of spectrum harmonisation. It will be the main basis and reference for the setting up of NATO military positions in Alliance preparations for future World Radiocommunication Conferences and for international spectrum investigations or re-allocation processes. Further to this, the document provides guidance for future equipment development.

12. On 04 October 2002 the Military Committee endorsed the NATO Joint Civil and Military Frequency Agreement, 2002 from a military point of view.

13. Council approval of the NJFA 2002, Enclosure 1, is recommended.

14. This document clears IMSWM-164-02 (SD1), 27 September 2002.

P.P.

SIR PAUL HADDACKS
Vice Admiral, UKNA
Director
International Military Staff

Enclosure
1. NATO Joint Civil and Military Frequency Agreement (NJFA), 2002

Copy To SDL T, NHQC3S/FMB

Action Officers Col W. Folkers, NHQC3S/FMB, 5528
Mr. E. Trautmann, NHQC3S/FMB, 5618

ENCLOSURE 1 to
MCM-141-02

NORTH ATLANTIC TREATY ORGANISATION

NATO Consultation, Command and Control Board

NATO Frequency Management Sub-Committee

5 September 2002

NATO JOINT CIVIL/MILITARY FREQUENCY AGREEMENT

2002

Supersedes PO(95)188 dated 26 October 1995

This document consists of 12 pages

ENCLOSURE 1 to
MCM-141-02

NATO JOINT CIVIL/MILITARY FREQUENCY AGREEMENT (NJFA)

Reference: PO(95)188 dated 26th October 1995

GENERAL

1. This document constitutes the joint agreement between the civil and military authorities of the NATO nations on the use of the radio spectrum for military purposes required by NATO forces or in support of NATO. It supersedes the reference document.

2. The decisions promulgated in the reference were firstly agreed in 1982 and modified in1995, following the International Telecommunication Union (ITU) World Radiocommunication Conference (WRC) of 1993. This new agreement takes into account the Final Acts of ITU World Radiocommunication Conferences (WRC) up to and including 2000, the new NATO strategy and the spectrum investigations by national and regional radiocommunication authorities.

   The extended military requirements and the conditions of spectrum use during states of emergency and in times of crisis or war are reflected in a supplement to the reference document.

3. Provisions of this agreement apply throughout the territory of NATO nations in ITU Region 1. However, it should be taken into account that many requirements (naval, naval radar, aeronautical, radio-navigation and satellite requirements) apply to all NATO nations. Military requirements which apply to the NATO operational areas in ITU Region 2 are also identified.

4. In order to improve harmonisation in spectrum utilisation for military operation throughout Europe, the majority of service-allocations and harmonised NATO bands stipulated in this document were incorporated in the European Table of Frequency Allocations and Utilisations which is within the responsibility of the Electronic Communications Committee (ECC) of the Conference of European Postal and Telecommunications Administrations (CEPT). In view of the developing frequency harmonisation process, in support of the European Atlantic Partnership Council (EAPC) policies and in particular with a view to combined military operations of NATO and Partners, it is highly desirable that the provisions of this agreement be extended beyond the European NATO nations.

5. The military use of the frequency spectrum is based on the provisions of the ITU Radio Regulations. However, the necessary mobility of NATO forces requires flexibility of use of the radio frequency spectrum. This exceptional case is provided for in the ITU Constitution Article 48 and Radio Regulation 4.4.

6. This agreement sets out military spectrum requirements which NATO nations agree to accept by reflecting such needs in national allocation tables, to the maximum extent possible[1]. It includes both NATO requirements and national military requirements in support of NATO for spectrum access. In addition, in order to satisfy the requirement for mobility and interoperability of forces, and to improve commonality in spectrum utilisation for military operations and efficiency in border areas, it designates harmonised NATO bands for military use throughout NATO Europe.

7. Frequency requirements based on the bands identified in the agreement may, in certain cases, become the subject of bilateral arrangements between nations and guest forces having regard for the sovereign rights of the Allied nations in determining specific use of the frequency spectrum. This document provides guidance for future equipment development, subject to coordination between the host country and guest forces or NATO Commands involved in accordance with existing frequency supportability and coordination procedures.

8. Spectrum resources are to be used in conjunction with the terms of the ITU Constitution, Convention and Radio Regulations and in accordance with national allocation tables. When specific military requirements cannot be complied with by using provisions of this NATO document, military requirements may be satisfied nationally in civil bands or allocations which are not listed in this document. Similar agreement may be reached for peacetime, regarding civil requirements to be accommodated in military bands or allocations. The agreements referred to above are subject to favourable technical coordination. Military usage, in bands where there is civil usage, will be in accordance with the ITU Radio Regulations.

9. Coordination between all radio services operating in a band shall be carried out in accordance with the appropriate provisions of the ITU Radio Regulations, relevant agreements and the procedures of the NATO Frequency Management Subcommittee (NATO FMSC).

IMPLEMENTATION

10. The frequency management authorities of NATO nations agree to adopt this document as the basis for future radio frequency planning and policy.

FUTURE REVISION

11. Changes to this agreement, which may be needed in the light of technical developments or operational reasons or as the result of future ITU Conferences, will only be initiated by competent National or NATO Authorities through NATO FMSC Joint Civil and Military meetings in accordance with NATO procedures.

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[1] It is recognised that in some national allocation tables, sub-division between military and civil is replaced by sub-division between Government and non-Government users.

MILITARY RADIO FREQUENCY REQUIREMENTS AND CONDITIONS OF SPECTRUM USE

12. The terminology used in the Joint Civil/Military Frequency Agreement is as follows:

a. **Types of military requirements**

(1) An **essential military requirement** for a frequency band, sub-band or ITU service indicates that the loss of, or harmful interference with, the military use of this frequency band, sub-band or ITU service will seriously degrade the operational effectiveness of NATO forces.

(2) A **military requirement** indicates the need for NATO forces to have access to the frequency band, sub-band or ITU service. The loss of access will impact on the operational effectiveness of NATO forces.

b. **Types of harmonised NATO bands**

(1) Type 1: A frequency band which is in general military use in NATO Europe.
(2) Type 2: A frequency band which is planned for military use in NATO Europe.
(3) Type 3: A frequency band which has been identified for possible military use in NATO Europe.

13. In the table below:

a. only those bands (column a) and ITU services (column b) are mentioned where there is a military requirement. This does not exclude, unless otherwise indicated, the utilisation for civil applications of these and other ITU services in conformity with the ITU Radio Regulations;

b. -column (c) indicates the military requirements/usage;

-column (d) defines the conditions of use and expands on the information in column (c);

c. ITU services are presented in accordance with the Radio Regulations:

-Primary Services are printed in capitals
(example: FIXED);

-Secondary Services are printed in normal characters
(example: Radiolocation);

d. The Fixed service allocations are also applicable to transportable (tactical) radio relay use.

14. It is recognised that all distress and safety provisions, as well as Radionavigation, Radionavigation-Satellite and Aeronautical Mobile (R) services are used by civil and military. They are, therefore, not always listed in the table.

15. In this document mention of ITU Region 2 applies to the NATO operational areas within the boundaries of ITU Region 2.

16. For a number of frequency bands of the Fixed service channelling arrangements exist in ITU-R or CEPT recommendations. There may be further arrangements in ITU Region 2. To improve sharing possibilities, it would be advantageous if civil and military used the same recommended channelling arrangements.

17. The requirements for future tactical radio relay systems should be harmonised in the longer term in appropriate frequency bands, preferably above 1 GHz.

Freq. Band	Service Allocations used by military forces	Military Requirements/Usage	Conditions of Use
(a)	(b)	(c)	(d)
14-70 kHz	MARITIME MOBILE	Essential military requirements for naval communications.	
70-148.5 kHz	MARITIME MOBILE	Military requirement for naval communications.	
283.5-415 kHz	AERONAUTICAL RADIONAVIGATION	Military requirement for tactical non-directional beacons.	
415-526.5 kHz	AERONAUTICAL RADIONAVIGATION	Military requirement for tactical non-directional beacons.	
	MARITIME MOBILE	Military requirement for naval communications.	
1606.5 kHz-30 MHz	AERONAUTICAL MOBILE (OR)	Essential military requirements for long distance airborne communications.	The exclusive allocations to the Aeronautical Mobile (OR) service in the bands between 3025 and 18030 kHz are to be used in accordance with RR Appendix 26.
	MARITIME MOBILE	1. Essential military requirements for wideband telegraphy channels. 2. Military requirement for naval communications.	The exclusive allocations to the Maritime Mobile service in the bands between 4000 and 27500 kHz are to be used in accordance with RR Appendix 31.
	FIXED, MOBILE except Aeronautical Mobile (R)	Military requirement for fixed and tactical communications.	Heavy re-use of channels is necessary.
	RADIOLOCATION	Military requirement for use of radiolocation systems.	

Freq. Band	Service Allocations used by military forces	Military Requirements/Usage	Conditions of Use
(a)	(b)	(c)	(d)
30-87.5 MHz	MOBILE	Essential military requirements from 8 to 25 MHz for tactical communications, of which 8 MHz should be harmonised spectrum.	1. 45.00-47.00 MHz is a harmonised NATO band type 1 (46.60-47.00 MHz also accessible by the military in ITU Region 2). 2. 30.30-30.50, 32.15-32.45, 41.00-45.00, 73.30-74.10 and 79.00-79.70 MHz are harmonised NATO bands type 3.
138-144 MHz	AERONAUTICAL MOBILE (OR)	Essential military requirements for operational air traffic.	The SPACE RESEARCH service shall not be implemented on a primary basis in NATO countries .
	LAND MOBILE (5.211)	Military requirement for land mobile communications.	
156-174 MHz	MOBILE, except Aeronautical Mobile	Military requirement for sonobuoy operation at sea and in port.	Sonobuoy to be operated on a secondary basis.
	MARITIME MOBILE	Military requirement for naval communications.	To be used in accordance with RR Appendix 18.
225-400 MHz	FIXED Fixed MOBILE Mobile MOBILE-SATELLITE (5.254)	1. Essential military requirements for mobile satellite, Air/Ground/Air and specific maritime and terrestrial communications. 2. NATO FMSC is responsible for the management of the military use of this band in NATO Europe.	1. This is a harmonised NATO band type 1, including ITU Region 2. 2. The use of the frequency band 225-400 MHz is under review. The implementation of T-DAB in the lower part and of emergency services in the upper part of the band is in progress. In this respect, corresponding to national requirements and national positions for the use of the band, further decisions will take into account results of compatibility analyses and shall be based on CEPT/ERC Decisions or Recommendations and European Standards. 3. Fixed radio relay (non-tactical) shall be transferred to higher frequency bands or other transmission media. 4.The SPACE OPERATION service shall not be implemented on a primary basis in NATO countries, including ITU Region 2.

Freq. Band	Service Allocations used by military forces	Military Requirements/Usage	Conditions of Use
(a)	(b)	(c)	(d)
400.15-406 MHz	METEOROLOGICAL AIDS	Military requirement for meteorological aids.	
420-450 MHz	RADIOLOCATION Radiolocation	Military requirement for land and naval radars and airborne radars over ocean areas.	In the interference range of the territorial waters of member countries, radar operations must be coordinated on a national basis according to the status of the service.
790-960 MHz	MOBILE except Aero-nautical Mobile FIXED	Essential military requirements from 10 to 60 MHz for tactical radio relay, of which 10 MHz should be harmonised spectrum for training in border areas, subject to bilateral or multilateral coordination.	Based on present equipment, the deployment of a Corps-size Reaction Force requires 50 MHz of spectrum, although it is recognised that some countries will have problems fulfilling such a requirement.
	Radiolocation	Military requirements for naval ship-borne radars (890-942 MHz).	In the interference range of the territorial waters of member countries, radar operations must be coordinated on a national basis.
960-1215 MHz	AERONAUTICAL RADIONAVIGATION (5.328)	Military requirement for: 1. TACAN and military Identification systems. 2. JTIDS/MIDS operations.	JTIDS/MIDS operations under special national agreements.
1215-1350 MHz	RADIOLOCATION RADIONAVIGATION (5.331) RADIONAVIGATION-SATELLITE (s-E)(5.329)	1. Essential military requirements for air defence and long-range warning radars. 2. Military requirement for NAVSTAR GPS.	NAVSTAR GPS at 1227.6 MHz with ± 14 MHz bandwidth 5.329 shall be observed.
1350-2690 MHz	FIXED, MOBILE (5.359)(5.397) RADIONAVIGATION-SATELLITE RADIOLOCATION, Radiolocation	1. Essential military requirements for tactical radio relay, with harmonised bands of 90 MHz, with a total of 180 MHz for major exercises in some countries. 2. Military requirement for radars from 1350 MHz up to 1375 MHz and up to 1400 MHz in some countries, and naval radars up to 1400 MHz. 3. Military requirement for NAVSTAR GPS.	1. In most NATO countries radio relay equipments tune through 1350-1850 MHz. Future equipments will tune through the full 1350-2690 MHz band. 2. In the short term the allocation to tactical radio relay should be selected from the sub-bands 1375-1400, 1427-1452, 1492-1525, 2025-2110, 2200-2290, 2520-2575 and 2615-2670 MHz. 3. In the long term (in particular post-2007) the harmonised sub-bands for tactical radio relay, in those countries having common land borders, shall be 2025-2070 and 2200-2245 MHz. 4. NAVSTAR GPS at 1575.42 MHz with ± 14 MHz bandwidth.

Freq. Band	Service Allocations used by military forces	Military Requirements/Usage	Conditions of Use
(a)	(b)	(c)	(d)
2700-3100 MHz	Radiolocation	Military requirement for land, airborne and naval radars.	
3100-3400 MHz	RADIOLOCATION	Essential military requirement for land, airborne and naval radars.	Conditions of 5.149 shall be observed.
3400-3410 MHz	Radiolocation	Essential military requirement for land, airborne and naval radars.	
3410-3500 MHz		Military requirement for land and naval radars.	In the interference range of the territorial waters of member countries, radar operations shall be coordinated on a national basis according to the status of the service.
4400-5000 MHz	FIXED, MOBILE	Essential military requirements for fixed, tactical radio relay and mobile systems.	1. This is a harmonised NATO band type 1. 2. The FIXED-SATELLITE service shall not be implemented in NATO Europe. 3. Conditions of 5.149 shall be observed.
5250-5850 MHz	RADIOLOCATION Radiolocation	Essential military requirements for land, airborne and naval radars.	
7250-7750 MHz	FIXED FIXED-SATELLITE (s-E), MOBILE-SATELLITE (s-E) (5.461)	1. Essential military requirements for satellite downlinks; the mobile satellite sub-band 7250-7300 MHz is for naval and land mobile earth stations. 2. Military requirement for fixed systems in some countries.	1. This is a harmonised NATO band type 1 for satellite down-links. 2. 7250-7300 MHz is paired with 7975-8025 MHz for the MOBILE-SATELLITE allocation. 3. The FIXED and MOBILE services are not to be implemented in the band 7250-7300 MHz in most NATO countries, including ITU Region 2. 4. In the band 7300-7750 MHz the transportable earth stations cannot claim protection from the other services.
7750-7900 MHz	FIXED	Military requirements for existing NATO fixed systems in some countries.	

Freq. Band	Service Allocations used by military forces	Military Requirements/Usage	Conditions of Use
(a)	(b)	(c)	(d)
7900-8400 MHz	FIXED-SATELLITE (E-s), MOBILE-SATELLITE (E-s) (5.461), FIXED Earth Exploration-Satellite (s-E) (5.462A)	1. Essential military requirements for satellite uplinks; the mobile satellite sub-band 7975-8025 MHz is for naval and land mobile satellite earth stations. 2. Military requirement for earth exploration satellite (downlink) purposes in the band 8025-8400 MHz. 3. Military requirement for fixed systems in some countries.	1. This is a harmonised NATO band type 1 for satellite uplinks. 2. 7975-8025 MHz is paired with 7250-7300 MHz for the MOBILE-SATELLITE allocation. 3. The FIXED and MOBILE services are not to be implemented in 7975-8025 MHz in most NATO countries, including ITU Region 2. 4. In the bands 7900-7975 and 8025-8400 MHz the transportable earth stations must not cause harmful interference to other services.
8500 MHz-10.5 GHz	RADIOLOCATION Radiolocation	Military requirement for land, airborne and naval radars.	Harmonised NATO band type 2 in selected sub-bands is desirable.
13.4-14 GHz	RADIOLOCATION	Essential military requirements for land, airborne and naval radars.	5.502 shall be observed.
14.62-15.23 GHz	FIXED, MOBILE	Essential military requirements for fixed and mobile services.	This is a harmonised NATO band type 1.
15.7-17.3 GHz	RADIOLOCATION	Essential military requirements for land, airborne and naval radars.	15.7-17.1 GHz is a harmonised NATO band type 1.
17.3-17.7 GHz	Radiolocation	Military requirement for land, airborne and naval radars.	
20.2-21.2 GHz	FIXED-SATELLITE (s-E), MOBILE-SATELLITE (s-E)	Essential military requirements for satellite downlinks.	1. This is a harmonised NATO band type 1, including ITU Region 2. 2. The MOBILE-SATELLITE allocation is paired with 43.5-45.5 GHz.
24.05-24.25 GHz	RADIOLOCATION	Military requirement for radiolocation systems.	
25.25-27.5 GHz	FIXED, MOBILE	Military requirement for planned fixed and mobile systems.	26.5-27.5 GHz is a harmonised NATO band type 2.

Freq. Band	Service Allocations used by military forces	Military Requirements/Usage	Conditions of Use
(a)	(b)	(c)	(d)
30-31 GHz	FIXED-SATELLITE (E-s) MOBILE-SATELLITE (E-s)	Military requirements for planned satellite uplinks.	This is a harmonised NATO band type 2.
33.4-36 GHz	RADIOLOCATION	Military requirement for radiolocation systems.	This is a harmonised NATO band type 1, including ITU Region 2.
36-37 GHz	FIXED, MOBILE	Military requirement for fixed and mobile systems.	1. This is a harmonised NATO band type 1, including ITU Region 2. 2. Conditions of 5.149 shall be observed.
37-39.5 GHz	FIXED	Military requirement for existing and future fixed systems.	
39.5-40.5 GHz	FIXED-SATELLITE (s-E) MOBILE-SATELLITE (s-E)	Military requirement for future satellite downlinks.	1. This is a harmonised NATO band type 3, including ITU Region 2. 2. Pairing with 50.4-51.4 GHz is envisaged.
43.5-45.5 GHz	MOBILE MOBILE-SATELLITE	1. Essential military requirements for satellite uplinks. 2. Military requirement for mobile systems.	1. This is a harmonised NATO band type 1, including ITU Region 2. 2. The MOBILE-SATELLITE allocation is paired with 20.2-21.2 GHz. 3. 5.553 and 5.554 shall be observed.
50.4-51.4 GHz	FIXED-SATELLITE (E-s) Mobile Satellite (E-s)	Military requirement for future satellite uplinks.	1. This is a harmonised NATO band type 3, including ITU Region 2. 2. Pairing with 39.5-40.5 GHz is envisaged.
59-63 GHz	RADIOLOCATION, FIXED, MOBILE	Military requirement for planned fixed, mobile and radiolocation systems.	59-61 GHz is a harmonised NATO band type 2, including ITU Region 2.
71-74 GHz	FIXED-SATELLITE (s-E) MOBILE-SATELLITE (s-E)	Military requirement for future use of satellite downlinks.	1. This is a harmonised NATO band type 3, including ITU Region 2. 2. Pairing with 81-84 GHz is envisaged.
77-77.5 GHz	RADIOLOCATION	Military requirement for future use of radiolocation systems.	Conditions of 5.149 shall be observed.

Freq. Band	Service Allocations used by military forces	Military Requirements/Usage	Conditions of Use
(a)	(b)	(c)	(d)
78-81 GHz	RADIOLOCATION	Military requirement for future use of radiolocation systems.	Conditions of 5.149 and 5.560 shall be observed.
81-84 GHz	FIXED-SATELLITE (E-s) MOBILE-SATELLITE (E-s)	Military requirement for future use of satellite uplinks.	1. This is a harmonised NATO band type 3, including ITU Region 2. 2. Pairing with 71-74 GHz is envisaged.
92-95 GHz	RADIOLOCATION	Military requirement for future use of radiolocation systems.	Conditions of 5.149 shall be observed.
95-100 GHz	RADIOLOCATION	Military requirement for future use of radiolocation systems.	Conditions of 5.149 shall be observed.

E. TRAUTMANN, Chairman
J. DUCHAC, Co-Chairman
Policy Working Group, NATO FMSC