

FWAのWP5CからWP5Aへの移管について
(Document 5A/86 5C/71 概要)

前回のSG5会合で、WP5CからWP5AへFWAに関する研究については移行することが同意された。

本文書では、WP5AとWP5Cの暫定議長による調整の結果、FWA関連のQuestion、勧告、報告の取扱い及び今後のFWAに関して新たな研究がおこなわれる際のWPの分担について明確化することを目的としている。具体的には以下のとおりである。

(1) 既存 Question(研究課題)の取り扱いについて

既に前回のSG5会合において、旧SG9に割り当てられていたFWA関連の研究課題(Question ITU-R125/9 及び 236/9)については削除が承認されている。

今後、WP5AにおいてFWAに関する議論を行う場合は、Question ITU-R 215/8に従って行い、必要に応じて当該研究課題を改定する。

(2) WP5A及びWP5Cで取り扱うFWAシステムの違いについて

WP5Aでは、アクセスシステムと統合して用いられるバックホール用途のFWAシステム、もしくはアクセスシステムと同じ技術を用いているバックホール用途のFWAシステムについて取り扱う。

WP5Cでは、新しい技術を用いたバックホール用途のFWAについて取り扱うこととする。

(3) Fシリーズ勧告と報告のメンテナンスについて

文書内のAnnex2の表に取りまとめられているとおり、FWAに該当するシステムの勧告については、WP5Aへ移管し、FWA以外のシステムに該当するものは引き続きWP5Cで管理することとする。

また、FWAとFWA以外のシステムに関する情報が両方とも入っている文書については5A/5Cとして、WP5AとWP5Cの両方で所管する。文書の更新作業を行うに当たっては、場合によって、文書をFWAとFWA以外に分けるか、適宜、必要箇所だけ修正することとする。

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Acting Chairmen, Working Party 5A and Working Party 5C

ORGANIZATION OF THE WORK ON FIXED WIRELESS ACCESS (FWA)

Introduction

Study Group 5 agreed to transfer the work on FWA from WP 5C to WP 5A (reference: Documents 5/5 and 5/43(Rev.1)).

The purpose of this contribution is to propose a gradual approach for the transfer of the work; taking into account the views of the Chairman of Study Group 5 (see Annex 1).

The relevant Questions from the former SG 9, namely Questions ITU-R 125/9 and 236/9, have been suppressed based on the result of the SG 5 meeting in February (see CAR/252). Hence, studies on FWA in WP 5A may be conducted provisionally under Question ITU-R 215/8, or, if needed, WP 5A could develop a new Question or a revised version of Question ITU-R 215/8.

Any new work on FWA, including backhaul systems which are integrated with the access system or are using the same technology (as opposed to separate/stand alone transport systems), will be conducted in WP 5A. The infrastructure backhaul systems that use their own technologies (separate from FWA) will continue to be studied in WP 5C.

The maintenance of the 23 Recommendations and 2 Reports in the F-series, listed in Sections 1 and 2, respectively, of Annex 2 are proposed to be transferred immediately to WP 5A.

The maintenance of the other Recommendations and Reports that have elements of FWA and other wireless systems elements are attributed jointly to WP 5A and WP 5C, indicated as "5A/5C" in Annex 2. Either of the working parties may initiate a revision when needed and will determine jointly whether the nature of the update would be an opportunity to split the Recommendation (or Report) into two separate ones (FWA and Backhaul) or whether it should be retained as is (this will probably depend on the nature of the update).

For information, Annex 3 shows the Recommendations and Reports on HF systems in the Mobile Service that were previously the responsibility of the former WP 8A and have already been allocated to WP 5C.

Proposal

The members of Working Party 5A and Working Party 5C are invited to confirm the proposals in Annex 2 along with the gradual transfer approach described above.

Annex 1

Extract from Document 5/5 from the Chairman of SG 5

“4.2 Solution for the Issue 2

On the assumption that there is general agreement to transfer the studies on FWA systems from Working Party 5C to Working party 5A, we need to consider the following points in maintaining the existing F-series Recommendations toward a practical solution:

- For the system characteristics aspect, it is comparatively easy to separate the Recommendations according to the two topics, i.e. P-P systems and FWA systems.
- For the RF arrangement aspect, it may not be easy to separate the topic to be studied in certain frequency bands between the two applications as existing Recommendations are dealing with both systems.
- For the frequency sharing aspect, the traditional approach, including the studies requested by the WRC Resolutions, was not to separate the two applications in the fixed service (except for some specific cases), therefore many relevant Recommendations deal with both systems.

We basically need to avoid the unfavourable situation that a fairly large number of the existing Recommendations would be shared by two different Working Parties (the same problem as was seen in the case of former WPs 8A and 8F). Some additional work for reorganization on the existing Recommendations may be required.

The Chairman, therefore, proposes to request Working Parties 5A and 5C to consider what is the most appropriate way to maintain the existing F-series Recommendations in Table 2 in particular for those dealing with both FWA and P-P systems.

TABLE 2

Categorization of F-series Recommendations according to the topics (Note 1)¹

WP	Topic		P-P systems	Both systems	FWA systems (Note 2)	Total
9A	A1	Performance & availability objectives	9 556, 557, 594, 634, 695, 696, 1330, 1566, 1605	8 1094, 1494, 1495, 1565, 1606, 1668, 1669, 1703	2 697, 1400	19
	A2	Propagation related issues	5 1093, 1095, 1096, 1097, 1190			5
	A3	Vocabulary		1 592	1 1399	2

¹ This is an update of Table 2 in Doc. 5/5 that has kindly been provided by the Chairman of Study Group 5. The updates are shown underlined.

WP	Topic		P-P systems	Both systems	FWA systems (Note 2)	Total
9B	B1	System characteristics	6 302, 698, 750, 751, 752, 1106	7 1101, 1102, 1105, 1191, 1498, 1671, 1705	9 755, 757, 1103, 1244, 1490, 1499, 1518,1704, 1763,	22
	B2	RF arrangements	11 382, 383, 384, 385, 386, 387, 497, 635, 636, 747, 1099	13 595, 637, 746, 748, 749, 1098, 1242, 1243, 1496, 1497, 1519, 1520, 1567	4 701, 1401, 1488, 1568	28
	B3	Other FS applications including those using HAPS (Note 3)		9 1332, 1500, 1501, 1569, 1607, 1608, 1609, 1764, 1820		9
9D	D1	Sharing principle, interference assessment, antenna patterns	2 699, 1245	7 758, 759, 1107, 1108, 1333, 1403, 1404	2 1336, 1760	11
	D2	Sharing criteria with other services	5 760, 1248, 1502, 1706, 1765	9 1246, 1247, 1249, 1334, 1335, 1338, 1405, 1571, 1670	5 1402, 1489, 1509, 1613, 1766,	19
	D3	Sharing issues for the other FS applications including those using HAPS (Note 3)		4 1570, 1612, 1777, 1819		4
	Total		38	58	23	119

NOTE 1 - Recommendations on HF systems developed by the former Working Party 9C are excluded from this Table.

NOTE 2 Recommendations dealing with P-MP (Point-to-multipoint) systems are categorized as “FWA systems” group since they are mostly used in the access networks.

NOTE 3- Recommendations on HAPS (high altitude platform stations), ENG (electronic news gathering) and other applications are provisionally categorized as the “Both systems” group.

Annex 2

Transfer of responsibilities on Fixed Wireless Access

1 Recommendations on FWA in the F-series

DocType	Series	Number	Rev	Title	Approval date	Comments	WP	Former WP
Recommendation	F	592	4	Vocabulary of terms for the fixed service	01/09/2007	1990-06	5A/5C	5C
Recommendation	F	595	9	Radio-frequency channel arrangements for fixed wireless systems operating in the 18 GHz frequency band	01/05/2006	1992-03	5A/5C	5C
Recommendation	F	637	3	Radio-frequency channel arrangements for fixed wireless systems operating in the 23 GHz band	01/02/1999	1994-09	5A/5C	5C
Recommendation	F	697	2	Error performance and availability objectives for the local-grade portion at each end of an ISDN connection at a bit rate below the primary rate utilizing digital radio-relay systems	01/09/1997	1991-01. This Recommendation could be used only for systems designed prior to the approval of Recommendation ITU-R F.1668	5A	5C
Recommendation	F	701	2	Radio-frequency channel arrangements for digital point-to-multipoint radio systems operating in frequency bands in the range 1.350 to 2.690 GHz (1.5, 1.8, 2.0, 2.2, 2.4 and 2.6 GHz)	01/09/1997	1994-09. Res. 44 update at SG 9 May 2007.	5A	5C
Recommendation	F	746	9	Radio-frequency arrangements for fixed service systems	01/09/2007	1994-09	5A/5C	5C
Recommendation	F	748	4	Radio-frequency arrangements for systems of the fixed service operating in the 25, 26 and 28 GHz bands	01/02/2001	1994-09	5A/5C	5C
Recommendation	F	749	2	Radio-frequency channel arrangements for radio-relay systems in the 38 GHz band	01/02/2001	1994-09	5A/5C	5C
Recommendation	F	755	2	Point-to-multipoint systems in the fixed service	01/05/1999	1994-09	5A	5C
Recommendation	F	757	3	Basic system requirements and performance objectives for fixed wireless access using mobile-derived technologies offering telephony and data communication services	01/02/2003	1992-03 . Jointly developed by Study Groups 8 and 9	5A	5C

DocType	Series	Number	Rev	Title	Approval date	Comments	WP	Former WP
Recommendation	F	758	4	Considerations in the development of criteria for sharing between the terrestrial fixed service and other services	01/01/2005	1992-03	5A/5C	5C
Recommendation	F	759	0	The use of frequencies in the band 500 to 3 000 MHz for radio-relay systems	01/03/1992	1992-03	5A/5C	5C
Recommendation	F	1094	2	Maximum allowable error performance and availability degradations to digital fixed wireless systems arising from radio interference from emissions and radiations from other sources	01/09/2007	1994-09	5A/5C	5C
Recommendation	F	1098	1	Radio-frequency channel arrangements for fixed wireless systems in the 1 900-2 300 MHz band	01/10/1995	1995-10. Editorially updated in accordance with Resolution ITU-R 44	5A/5C	5C
Recommendation	F	1101	0	Characteristics of digital fixed wireless systems below about 17 GHz	01/09/1994	1994-09	5A/5C	5C
Recommendation	F	1102	2	Characteristics of fixed wireless systems operating in frequency bands above about 17 GHz	01/01/2005	1994-09	5A/5C	5C
Recommendation	F	1103	1	Basic requirements and technologies for fixed wireless systems operating in bands below 3 GHz for the provision of wireless subscriber connections in rural areas	01/09/2007	1994-09. MOD Doc. 9/147	5A	5C
Recommendation	F	1105	2	Fixed wireless systems for disaster mitigation and relief operations	01/05/2006	1994-09	5A/5C	5C
Recommendation	F	1107	1	Probabilistic analysis for calculating interference into the fixed service from satellites occupying the geostationary orbit	01/05/2002	1994-09	5A/5C	5C
Recommendation	F	1108	4	Determination of the criteria to protect fixed service receivers from the emissions of space stations operating in non-geostationary orbits in shared frequency bands	01/01/2005	1994-09	5A/5C	5C
Recommendation	F	1191	2	Bandwidths and unwanted emissions of digital fixed service systems	01/02/2001	1995-10	5A/5C	5C
Recommendation	F	1192	0	Traffic capacity of automatically controlled radio systems and networks in the HF fixed service	01/10/1995	1995-10	5A/5C	5C

DocType	Series	Number	Rev	Title	Approval date	Comments	WP	Former WP
Recommendation	F	1243	0	Radio-frequency channel arrangements for digital radio systems operating in the range 2 290-2 670 MHz	01/05/1997	1997-05	5A/5C	5C
Recommendation	F	1244	0	Radio local area networks (RLANs)	01/05/1997	1997-05. Possibly suppress after M.1450 is approved in January 2008.	5A	5C
Recommendation	F	1246	0	Reference bandwidth of receiving stations in the fixed service to be used in coordination of frequency assignments with transmitting space stations in the mobile-satellite service in the 1-3 GHz range	01/05/1997	1997-05. Jointly developed by Study Groups 8 and 9. Editorially updated in accordance with Resolution ITU-R 44.	5A/5C	5C
Recommendation	F	1247	1	Technical and operational characteristics of systems in the fixed service to facilitate sharing with the space research, space operation and Earth exploration-satellite services operating in the bands 2 025-2 110 MHz and 2 200-2 290 MHz	01/05/2000	1997-05. Jointly developed by Study Groups 7 and 9	5A/5C	5C
Recommendation	F	1249	1	Maximum equivalent isotropically radiated power of transmitting stations in the fixed service operating in the frequency band 25.25-27.5 GHz shared with the inter-satellite service	01/05/2000	1997-05. Jointly developed by Study Groups 7 and 9	5A/5C	5C
Recommendation	F	1332	1	Radio-frequency signal transport through optical fibres	01/05/1999	1997-09	5A/5C	5C
Recommendation	F	1333	1	Estimation of the actual elevation angle from a station in the fixed service towards a space station taking into account atmospheric refraction	01/05/1999	1997-09	5A/5C	5C
Recommendation	F	1334	0	Protection criteria for systems in the fixed service sharing the same frequency bands in the 1 to 3 GHz range with the land mobile service	01/09/1997	1997-09. Res. 44 update at SG 9 May 2007.	5A/5C	5C
Recommendation	F	1335	0	Technical and operational considerations in the phased transitional approach for bands shared between the mobile-satellite service and the fixed service at 2 GHz	01/09/1997	1997-09. Jointly developed by Study Groups 8 and 9	5A/5C	5C
Recommendation	F	1336	1	Reference radiation patterns of omnidirectional, sectoral and other antennas in point-to-multipoint systems for use in sharing studies in the frequency range from 1 to about 70 GHz	01/05/2000	1997-05	5A	5C

DocType	Series	Number	Rev	Title	Approval date	Comments	WP	Former WP
Recommendation	F	1338	0	Threshold levels to determine the need to coordinate between particular systems in the broadcasting-satellite service (sound) in the geostationary-satellite orbit for space-to-Earth transmissions and the fixed service in the band 1 452-1 492 MHz	01/10/1997	1997-10. Jointly developed by Study Groups 6 and 9. Res. 44 update at SG 9 May 2007.	5A/5C	5C
Recommendation	F	1399	1	Vocabulary of terms for wireless access	01/02/2001	1999-05 . Jointly developed by Study Groups 8 and 9	5A	5C
Recommendation	F	1400	0	Performance and availability requirements and objectives for fixed wireless access to public switched telephone network	01/05/1999	1999-05. Jointly developed by Study Groups 8 and 9	5A	5C
Recommendation	F	1401	1	Considerations for the identification of possible frequency bands for fixed wireless access and related sharing studies	01/01/2004	1999-05. Jointly developed by Study Groups 8 and 9	5A	5C
Recommendation	F	1402	0	Frequency sharing criteria between a land mobile wireless access system and a fixed wireless access system using the same equipment type as the mobile wireless access system	01/05/1999	1999-05. Jointly developed by Study Groups 8 and 9	5A	5C
Recommendation	F	1403	0	Power flux-density criteria in ITU-R Recommendations for protection of systems in the fixed service in frequency bands shared with space stations of various space services	01/05/1999	1999-05	5A/5C	5C
Recommendation	F	1404	1	Minimum propagation attenuation due to atmospheric gases for use in frequency sharing studies between systems in the fixed service and systems in the broadcasting-satellite, mobile-satellite and space science services	01/05/2002	1999-05	5A/5C	5C
Recommendation	F	1405	0	Guidance to facilitate coordination and use of frequency bands shared between the fixed service and mobile-satellite service in the frequency range 1-3 GHz	01/05/1999	1999-05	5A/5C	5C
Recommendation	F	1488	0	Frequency block arrangements for fixed wireless access systems in the range 3 400-3 800 MHz	01/05/2000	2000-05. Jointly developed by Study Groups 8 and 9	5A	5C
Recommendation	F	1489	0	A methodology for assessing the level of operational compatibility between fixed wireless access and radiolocation systems when sharing the band 3.4-3.7 GHz	01/05/2000	2000-05. Jointly developed by Study Groups 8 and 9	5A	5C
Recommendation	F	1490	1	Generic requirements for fixed wireless access systems	01/09/2007	2000-05. Jointly developed by Study Groups 8 and 9 / MOD Doc.9/146	5A	5C

DocType	Series	Number	Rev	Title	Approval date	Comments	WP	Former WP
Recommendation	F	1494	0	Interference criteria to protect the fixed service from time varying aggregate interference from other services sharing the 10.7-12.75 GHz band on a co-primary basis	01/05/2000	2000-05	5A/5C	5C
Recommendation	F	1495	1	Interference criteria to protect the fixed service from time varying aggregate interference from other radiocommunication services sharing the 17.7-19.3 GHz band on a co-primary basis	01/09/2007	2000-05	5A/5C	5C
Recommendation	F	1496	1	Radio-frequency channel arrangements for fixed wireless systems operating in the band 51.4-52.6 GHz	01/02/2002	2000-05	5A/5C	5C
Recommendation	F	1497	1	Radio-frequency channel arrangements for fixed wireless systems operating in the band 55.78-59 GHz	01/02/2002	2000-05	5A/5C	5C
Recommendation	F	1498	1	Deployment characteristics of fixed service systems in the band 37-40 GHz for use in sharing studies	01/02/2002	2000-05	5A/5C	5C
Recommendation	F	1499	0	Radio transmission systems for fixed broadband wireless access based on cable modem standard	01/05/2000	2000-05. Jointly developed by Study Groups 8 and 9	5A	5C
Recommendation	F	1500	0	Preferred characteristics of systems in the fixed service using high altitude platforms operating in the bands 47.2-47.5 GHz and 47.9-48.2 GHz	01/05/2000	2000-05	5A/5C	5C
Recommendation	F	1501	0	Coordination distance for systems in the fixed service (FS) involving high-altitude platform stations (HAPSs) sharing the frequency bands 47.2-47.5 GHz and 47.9-48.2 GHz with other systems in the fixed service	01/05/2000	2000-05	5A/5C	5C
Recommendation	F	1509	0	Technical and operational requirements that facilitate sharing between point-to-multipoint systems in the fixed service and the inter-satellite service in the band 25.25-27.5 GHz	01/02/2001	2001-02. Jointly developed by Study Groups 7 and 9	5A	5C
Recommendation	F	1518	0	Spectrum requirement methodology for fixed wireless access and mobile wireless access networks using the same type of equipment, when coexisting in the same frequency band	01/05/2001	2001-05. Jointly developed by Study Groups 8 and 9	5A	5C
Recommendation	F	1519	0	Guidance on frequency arrangements based on frequency blocks for systems in the fixed service	01/02/2001	2001-02	5A/5C	5C

DocType	Series	Number	Rev	Title	Approval date	Comments	WP	Former WP
Recommendation	F	1520	2	Radio-frequency arrangements for systems in the fixed service operating in the band 31.8-33.4 GHz	01/02/2003	2003-02	5A/5C	5C
Recommendation	F	1565	0	Performance degradation due to interference from other services sharing the same frequency bands on a co-primary basis with real digital fixed wireless systems used in the international and national portions of a 27 500 km hypothetical reference path at or above the primary rate	01/05/2002	2002-05	5A/5C	5C
Recommendation	F	1567	0	Radio-frequency channel arrangement for digital fixed wireless systems operating in the frequency band 406.1-450 MHz	01/05/2002	2002-05	5A/5C	5C
Recommendation	F	1568	1	Radio-frequency block arrangements for fixed wireless access systems in the range 10.15-10.3/10.5-10.65 GHz	01/01/2005	2005-01	5A	5C
Recommendation	F	1569	0	Technical and operational characteristics for the fixed service using high altitude platform stations in the bands 27.5-28.35 GHz and 31-31.3 GHz	01/05/2002	2002-05	5A/5C	5C
Recommendation	F	1570	1	Impact of uplink transmission in the fixed service using high altitude platform stations on the Earth exploration-satellite service (passive) in the 31.3-31.8 GHz band	01/02/2003	2003-02	5A/5C	5C
Recommendation	F	1571	0	Mitigation techniques for use in reducing the potential for interference between airborne stations in the radionavigation service and stations in the fixed service in the band 31.8-33.4 GHz	01/05/2002	2002-05	5A/5C	5C
Recommendation	F	1606	0	Interference criteria to protect fixed wireless systems from time varying aggregate interference produced by non-GSO satellites operating in other services sharing the 37-40 GHz and 40.5-42.5 GHz bands on a co-primary basis	01/02/2003	2003-02	5A/5C	5C
Recommendation	F	1607	0	Interference mitigation techniques for use by high altitude platform stations (HAPS) in the 27.5-28.35 GHz and 31.0-31.3 GHz bands	01/02/2003	2003-02	5A/5C	5C
Recommendation	F	1608	0	Frequency sharing between systems in the fixed service using high altitude platform stations and conventional systems in the fixed service in the bands 47.2-47.5 and 47.9-48.2 GHz	01/02/2003	2003-02	5A/5C	5C

DocType	Series	Number	Rev	Title	Approval date	Comments	WP	Former WP
Recommendation	F	1609	1	Interference evaluation from fixed service systems using high altitude platform stations to conventional fixed service systems in the bands 27.5-28.35 and 31.0-31.3 GHz	01/04/2006	2003-02	5A/5C	5C
Recommendation	F	1612	0	Interference evaluation of the fixed service using high altitude platform stations to protect the radio astronomy service from uplink transmission in HAPS systems in the 31.3-31.8 GHz band	01/02/2003	2003-02	5A/5C	5C
Recommendation	F	1613	0	Operational and deployment requirements for fixed wireless access systems in the fixed service in Region 3 to ensure the protection of systems in the Earth exploration-satellite service (active) and the space research service (active) in the band 5 250-5 350 MHz	01/02/2003	2003-02. Jointly developed by Study Groups 7 and 9. Incorporated by reference in RR 2004	5A	5C
Recommendation	F	1668	1	Error performance objectives for real digital fixed wireless links used in 27 500 km hypothetical reference paths and connections	01/01/2004	2004-01	5A/5C	5C
Recommendation	F	1669	1	Interference criteria of fixed wireless systems operating in the 37-40 GHz and 40.5-42.5 GHz bands with respect to satellites in the geostationary orbit	01/09/2007	2004-01	5A/5C	5C
Recommendation	F	1670	1	Protection of fixed wireless systems from terrestrial digital video and sound broadcasting systems in the shared VHF and UHF bands	01/05/2006	2004-01	5A/5C	5C
Recommendation	F	1671	0	Guidelines for a process to address the deployment of area-licensed fixed wireless systems operating in neighbouring countries	01/01/2004	2004-01	5A/5C	5C
Recommendation	F	1703	0	Availability objectives for real digital fixed wireless links used in 27 500 km hypothetical reference paths and connections	01/01/2005	2005-01	5A/5C	5C
Recommendation	F	1704	0	Characteristics of multipoint-to-multipoint (MP-MP) fixed wireless systems with mesh network topology operating in frequency bands above about 17 GHz	01/01/2005	2005-01	5A	5C
Recommendation	F	1705	0	Analysis and optimization of the error performance of digital fixed wireless systems for the purpose of bringing into service and maintenance	01/01/2005	2005-01	5A/5C	5C

DocType	Series	Number	Rev	Title	Approval date	Comments	WP	Former WP
Recommendation	F	1760	0	Methodology for the calculation of the aggregate equivalent isotropically radiated power (a.e.i.r.p.) distribution from point-to-multipoint high-density applications in the fixed service operating in bands above 30 GHz identified for such use	01/05/2006	2006-05	5A	5C
Recommendation	F	1763	0	Radio interface standards for broadband wireless access systems in the fixed service operating below 66 GHz	01/04/2006	2006-04	5A	5C
Recommendation	F	1764	0	Methodology to evaluate interference from fixed service systems using high altitude platform stations (HAPS) to fixed wireless systems in the bands above 3 GHz	01/04/2006	2006-04	5A/5C	5C
Recommendation	F	1766	0	Methodology to determine the probability of a radio astronomy observatory receiving interference based on calculated exclusion zones to protect against interference from point-to-multipoint high-density applications in the fixed service operating in bands around 43 GHz	01/04/2006	2006-04	5A	5C
Recommendation	F	1777	0	System characteristics of television outside broadcast, electronic news gathering and electronic field production in the fixed service for use in sharing studies	01/01/2007	2007-1	5A/5C	5C
Recommendation	F	1819	0	Protection of the radio astronomy service in the 48.94-49.04 GHz band from unwanted emissions from HAPS in the 47.2-47.5 GHz and 47.9-48.2 GHz bands	01/09/2007	2007-09	5A/5C	5C
Recommendation	F	1820	0	PFD limits at international borders for HAPS providing fixed wireless access services to protect FS in neighbouring countries in the 47.2-47.5 GHz and 47.9-48.2 GHz bands	01/09/2007	2007-09	5A/5C	5C

2 Reports on FWA in the F-series

DocType	Series	Number	Rev	Title	Approval date	Comments	WP	Former WP
Report	F	2058	0	Design techniques applicable to broadband fixed wireless access (FWA) systems conveying Internet protocol (IP) packets or asynchronous transfer mode (ATM) cells	01/12/2005		5A	5C
Report	F	2086	0	Technical and operational characteristics and applications of broadband wireless access in the fixed service	01/09/2006		5A	5C

Annex 3

Texts on HF Systems in the Mobile Service attributed to WP 5C

Recommendation ITU-R M.1795	Characteristics of land mobile MF/HF systems.	2007
Report ITU-R M.2026	Adaptability of real zero single sideband technology to HF data communications.	2001
