



BR IFIC / DATE	BR IFIC / DATE	BR IFIC / FECHA
2961 / 14.12.2021		
RES 609 (Rév.CMR-07)	RES 609 (Rev.WRC-07)	RES 609 (Rev.CMR-07)
Dix-huitième réunion de consultation sur la Résolution 609 (Rév.CMR-07), Réunion virtuelle, novembre 2021	Eighteenth Resolution 609 (Rev.WRC-07) Consultation Meeting, Virtual meeting, November 2021	Decimoctava reunión de consulta sobre la Resolución 609 (Rev.CMR-07), Reunión virtual, noviembre de 2021
<p>Les présents renseignements sont publiés par le Bureau conformément <i>au point 3 du charge le Bureau</i>, de la Résolution 609 (Rév.CMR-07) :</p> <p>La Partie A contient la Liste des systèmes du SRNS et le Rapport sur les constatations établi par le Bureau à l'intention des participants à la réunion de consultation chargée de déterminer si le niveau de puissance surfacique visé au <i>point 1 du recommande</i> de la Recommandation 608 (Rév.CMR-07) est dépassé par une station spatiale considérée.</p> <p>La Partie B contient les renseignements publiés au <i>point 8 du décide</i> de la Résolution 609 (Rév.CMR-07), à savoir les résultats concernant la répartition du brouillage cumulatif en application du <i>point 2 du décide</i> de ladite Résolution, que ces résultats correspondent ou non à des modifications éventuelles des caractéristiques publiées de leurs systèmes ou réseaux respectifs.</p>	<p>This information is published by the Bureau in accordance with <i>instructs the Bureau 3 of Resolution 609</i> (Rev.WRC-07):</p> <p>Part A includes the List of RNSS systems and the Report of the findings by the Bureau to the participants of the Consultation meeting on the determination of whether the power flux-density level in <i>recommends 1 of Recommendation 608</i> (Rev.WRC-07) is exceeded by any subject space station.</p> <p>Part B includes the information referred to in <i>resolves 8 of the Resolution 609</i> (Rev.WRC-07), as results of any aggregate sharing determinations made in application of <i>resolves 2 of the Resolution 609</i> (Rev.WRC-07), without regard to whether such determinations result in any modifications to the published characteristics of their respective systems or networks.</p>	<p>Esta información se publica por la Oficina con arreglo al <i>encarga a la Oficina 3</i> de la Resolución 609 (Rev.CMR-07):</p> <p>La Parte A incluye la lista de sistemas del SRNS y el Informe de las conclusiones de la Oficina dirigido a los participantes de la reunión de consulta para determinar si el nivel de densidad de flujo de potencia indicado en el <i>recomienda 1</i> de la Recomendación 608 (Rev.CMR-07) es rebasado por alguna estación espacial en cuestión.</p> <p>La Parte B incluye la información a la que se refiere el <i>resuelve 8</i> de la Resolución 609 (Rev.CMR-07), como resultado de cualquier decisión sobre compartición combinada tomada en aplicación del <i>resuelve 2</i> de la Resolución 609 (Rev.CMR-07), sin tener en cuenta si dichas decisiones tienen como resultado cualquier modificación en las características publicadas de sus respectivos sistemas o redes.</p>



国际电信联盟
无线电通信局

МЕЖДУНАРОДНЫЙ СОЮЗ ЭЛЕКТРОСВЯЗИ
БЮРО РАДИОСВЯЗИ

الاتحاد الدولي للاتصالات
مكتب الاتصالات الراديوية

无线电通信局国际频率信息通报 / 日期	ИФИК БР / ДАТА	النشرة الإعلامية الدولية للترددات / رقمها وتاريخها
2961 / 14.12.2021		
第 609 号决议 (WRC-07 修订版)	РЕЗ 609 (Пересм. ВКР-07)	القرار 609 (Rev.WRC-07)
第 609 号决议 (WRC-07, 修订版) 第十 八次磋商会议 虚拟会议, 2021 年 11 月	Восемнадцатое консультативное собрание по Резолюции 609 (Пересм. ВКР-07), виртуальное собрание, ноябрь 2021 года	الاجتماع التشاوري الثامن عشر بشأن القرار 609 (Rev.WRC-07) اجتماع افتراضي, نوفمبر 2021
<p>无线电通信局根据第 609 号决议 (WRC-07 修订版) 责成无线电通信局 3 公布本信息:</p> <p>A 部分包括卫星无线电导航业务 (RNSS) 系统列表和无线电通信局向参加磋商会议的与会者提供的该局的审查结果报告。磋商会议旨在确定第 608 号建议 (WRC-07 修订版) 建议 1 中的功率通量密度限值是否被某个特定空间台站所超过。</p> <p>B 部分 包括第 609 号决议 (WRC-07 修订版) 做出决议 8 所列的信息, 即有关执行第 609 号决议 (WRC-07 修订版) 作出决议 2 中的集总干扰分摊的确定结果, 不论这一确定结果是否修改其各自系统或网络的已公布特性。</p>	<p>Настоящая информация публикуется Бюро в соответствии с п. 3 раздела "порукает Бюро" Резолюции 609 (Пересм.ВКР-07):</p> <p>Часть А содержит список систем РНСС, а также Отчет участникам консультативного собрания о заключениях Бюро относительно определения, превышает ли уровень потока мощности, определенный в п.1 раздела "рекомендует" Рекомендации 608 (Пересм.ВКР-07), какой-либо из рассматриваемых космических станций или нет.</p> <p>Часть В содержит информацию, о которой идет речь в п. 8 раздела "решает" Резолюции 609 (Пересм.ВКР-07) и которая является результатом любого определения условий совместного использования суммарного допустимого уровня согласно пункту 2 раздела "решает" Резолюции 609 (Пересм.ВКР-07), независимо от того, достигнуты ли эти результаты путем изменения объявленных характеристик их соответствующих систем или сетей или нет.</p>	<p>ينشر المكتب هذه المعلومات وفقاً للبند 3 من "يكلف مكتب الاتصالات الراديوية" في القرار 609 (Rev.WRC-07):</p> <p>يتضمن الجزء A قائمة بأنظمة خدمة الملاحة الراديوية الساتلية وتقريراً أعده المكتب يتضمن النتائج التي توصل إليها موجهاً للمشاركين في هذا الاجتماع التشاوري المكلف بتحديد ما إذا كانت حدود كثافة تدفق القدرة المنصوص عليها في البند 1 من "يوصي" في التوصية 608 (Rev.WRC-07) قد تجاوزتها أي محطة من المحطات الفضائية المعنية.</p> <p>ويتضمن الجزء B المعلومات المشار إليها في البند 8 من منطوق القرار 609 (Rev.WRC-07)، أي نتائج ترتيبات التقاسم التراكمي التي يتم التوصل إليها تنفيذاً للبند 2 من منطوق القرار 609 (Rev.WRC-07)، بغض النظر عما إذا كانت هذه الترتيبات سيسفر عنها أي تعديلات في الخصائص المنشورة لأنظمة الإدارات المعنية وشبكاتهما.</p>

<p style="text-align: center;">PARTIE A</p> <p>Liste des systèmes du SRNS et Rapport sur les conclusions établi par le Bureau à l'intention des participants à la réunion de consultation chargée de déterminer si le niveau de puissance surfacique visé au point 1 du <i>recommande</i> de la Recommandation 608 (Rév.CMR-07) est dépassé par une station spatiale considérée.</p>	<p style="text-align: center;">PART A</p> <p>List of the RNSS systems and Report of the findings by the Bureau to the participants of the Consultation meeting on the determination of whether the power flux-density level in <i>recommends 1</i> of Recommendation 608 (Rev.WRC-07) is exceeded by any subject space station.</p>	<p style="text-align: center;">PARTE A</p> <p>Lista de sistemas del SRNS e Informe de las conclusiones de la Oficina dirigido a los participantes de la reunión de consulta para determinar si el nivel de densidad de flujo de potencia del <i>recomienda 1</i> de la Recomendación 608 (Rev.CMR-07) es rebasado por alguna de las estaciones espaciales en cuestión.</p>
<p>Aux termes du <i>point 1 du recommande</i> de la Recommandation 608 (Rév.CMR-07), lors de l'application des dispositions du <i>point 5 du décide</i> de la Résolution 609 (Rév.CMR-07), dans la bande 1 164 – 1 215 MHz, la puissance surfacique maximale rayonnée à la surface de la Terre par les émissions d'une station spatiale du SRNS, pour tous les angles d'arrivée, ne dépasse pas -129 dB(W/m²) dans une bande quelconque de 1 MHz dans des conditions de propagation en espace libre.</p>	<p>Recommendation 608 (Rev.WRC-07) <i>recommends 1</i>, indicates that in the implementation of <i>resolves 5</i> of Resolution 609 (Rev.WRC-07), in the frequency band 1 164 – 1 215 MHz, the maximum power flux-density produced at the surface of the Earth by emissions from a space station in the radionavigation-satellite service, for all angles of arrival, should not exceed -129 dB(W/m²) in any 1 MHz band under free space propagation conditions.</p>	<p>La Recomendación 608 (Rev.CMR-07) en su <i>recomienda 1</i> señala que en la aplicación del <i>resuelve 5</i> de la Resolución 609 (Rev.CMR-07), en la banda de frecuencias 1 164 – 1 215 MHz, la máxima densidad de flujo de potencia producida en la superficie de la Tierra por las emisiones de una estación espacial del servicio de radionavegación por satélite, para todos los ángulos de llegada, no deberá superar -129 dB(W/m²) en cualquier banda de 1 MHz en condiciones de propagación en espacio libre.</p>

<p style="text-align: center;">A 部分</p> <p>卫星无线电导航业务（RNSS）系统列表和无线电通信局向参加磋商会议的与会者提供的该局的审查结果报告。磋商会议旨在确定第 608 号建议（WRC-07，修订版）做出建议 1 中的功率通量密度限值是否被某个所述空间电台所超出。</p>	<p style="text-align: center;">ЧАСТЬ А</p> <p>Список систем РНСС, а также Отчет участникам консультативного собрания о заключениях Бюро относительно определения, превышает ли уровень плотности потока мощности, определенный в п. 1 раздела <i>рекомендует</i> Рекомендации 608 (Пересм. ВКР-07), какой-либо из рассматриваемых космических станций или нет.</p>	<p style="text-align: center;">الجزء A</p> <p>قائمة بأنظمة خدمة الملاحة الراديوية الساتلية وتقرير أعده المكتب يتضمن النتائج التي توصل إليها موجه للمشاركين في هذا الاجتماع التشاوري المكلف بتحديد ما إذا كانت حدود كثافة تدفق القدرة المنصوص عليها في البند 1 من "يوصي" في التوصية 608 (Rev.WRC-07) قد تجاوزتها أي محطة من المحطات الفضائية المعنية.</p>
<p>第 608 号建议（WRC-07 修订版）建议 1 指出，在执行第 609 号决议（WRC-07 修订版）做出决议第 5 段时，在 1 164-1 215MHz 频带内和在所有到达角上，卫星无线电导航业务空间电台的发射在地球表面产生的最大功率通量密度，在自由空间传播条件下，在任何 1MHz 频带内，不得超过 -129 dB (W/m²)。</p>	<p>В п.1 раздела "<i>рекомендует</i>" Рекомендации 608 (Пересм.ВКР-07) указывается, что при применении пункта 5 раздела "<i>решает</i>" Резолюции 609 (Пересм.ВКР-07) в полосе частот 1 164–1 215 МГц максимальная плотность потока мощности, создаваемая у поверхности Земли излучениями космической станции радионавигационной спутниковой службы, для всех углов прихода не должна превышать -129 дБ(Вт/м²) в любой полосе шириной 1 МГц при условиях распространения в свободном пространстве.</p>	<p>ينص البند 1 من "يوصي" في التوصية 608 (Rev.WRC-07) على أنه، في تطبيق البند 5 من منطوق القرار 609 (Rev.WRC-07)، ينبغي ألا تتجاوز كثافة تدفق القدرة القصوى الناتجة عند سطح الأرض عن إرسالات محطة فضائية في خدمة الملاحة الراديوية الساتلية في نطاق الترددات 1 164 – 1 215 MHz، القيمة -129 dB(W/m²)، في أي نطاق يبلغ 1 MHz، لجميع زوايا الوصول، وفي ظروف الانتشار في الفضاء الحر.</p>

**Liste des systèmes du SRNS – Description des colonnes / List of the RNSS systems - Description of the columns /
Listas de los sistemas del SRNS - Descripción de las columnas**

Item	Description	Description	Descripción
ntc_id	Numéro d'identification du réseau à satellite	Identification number of the network	BR Número de identificación de la red
adm	Administration notificatrice (voir le Tableau 1 de la Préface)	Notifying administration (Refer to Table 1 of the Preface)	Administración notificante (véase el cuadro 1 del Prefacio)
ntw_org	Organisation Intergouvernementale de Satellite	Intergovernmental Satellite Organization	Organización Intergubernamental de Satélite
sat_name	Identité du réseau à satellite	Identity of the satellite network	Identidad de la red de satélite
long_nom	Longitude nominale d'une station spatiale géostationnaire (degré)	Nominal longitude of a geostationary space station (degree)	Longitud nominal de una estación espacial geoestacionaria (grado)
ntf_rsn	A = Réseau au stade API C = Réseau au stade de la coordination N = Réseau au stade de la notification	A = Network in API stage C = Network in coordination stage N = Network in notification stage	B = Red en etapa de API C = Red en etapa de coordinación N = Red en etapa de notificación
d_rcv	Date de réception	Date of receipt	Fecha de recepción
sns_ref+ssn_no	Référence aux Sections Spéciales	Reference to Special Sections	Referencia a las Secciones Especiales
ific_no	Numéro de la BR IFIC	BR IFIC number	Número de la BR IFIC
d_ific	Date de la BR IFIC	BR IFIC date	Fecha de la BR IFIC
dBiU	Date de mise en service	Date of bringing into use	Fecha de puesta en servicio
Annex to RES-609	Systèmes du SRNS ayant des assignations de fréquence dans la bande 1 164 – 1 215 MHz pour lesquels les informations demandées dans l'Annexe de la Résolution 609 ont été fournies à la réunion de consultation.	RNSS systems with frequency assignments in the band 1 164-1 215 MHz for which Annex to Resolution 609 information has been provided to the Consultation meeting.	Sistemas del SRNS con asignaciones de frecuencias en la banda 1 164 – 1 215 MHz para los cuales se ha proporcionado la información de la Resolución 609 a la reunión de consulta.
BR Report (RES 609 instructs the Bureau 2)	Rapport du Bureau contenant des conclusions relatives à la détermination des valeurs de puissance surfacique indiquées sous <i>recommande 1</i> de la Recommandation 608 (Rév.CMR-07) en utilisant les informations demandées au titre de l'Annexe 1 de ladite Recommandation.	Bureau's Report with findings relating to determination of the PFD values indicated in <i>recommends 1</i> of Recommendation 608 (rev.WRC-07) using Annex 1 information of this Recommendation.	Informe de la Oficina con las conclusiones relativas a la determinación de los valores de DFP indicados en el <i>recomienda 1</i> de la Recomendación 608 (Rev.CMR-07) utilizando la información del Anexo 1 de esta Recomendación.

RNSS 系统列表 – 栏目描述 / Список систем РНСС – Описание столбцов /

قائمة بأنظمة خدمة الملاحة الراديوية الساتلية – وصف الأعمدة

Item	描述	Описание	الوصف
ntc_id	卫星网络标识号码	Идентификационный номер спутниковой сети	رقم هوية الشبكة الساتلية
adm	通知主管部门（参阅前言表 1）	Заявляющая администрация (см. таблицу 1 Предисловия)	الإدارة المبلغة (انظر الجدول 1 في المقدمة)
ntw_org	政府间卫星组织	Межправительственная спутниковая организация	منظمة ساتلية دولية حكومية
sat_name	卫星网络的标识	Название спутниковой сети	هوية الشبكة الساتلية
long_nom	静止空间台站标称经度（度）	Номинальная долгота геостационарной космической станции (градусы)	خط الطول الاسمي لمحطة فضائية مستقرة بالنسبة إلى الأرض (بالدرجات)
ntf_rsn	A= 处于 API 阶段的网络 C= 处于协调阶段的网络 N= 处于通知阶段的网络	A = Сеть на этапе API C = Сеть на этапе координации N = Сеть на этапе заявления	A = شبكة في مرحلة "معلومات النشر المسبق" C = شبكة في مرحلة التنسيق N = شبكة في مرحلة التبليغ
d_rev	收到日期	Дата получения	تاريخ الاستلام
sns_ref+ssn_no	引证特节	Ссылка на Специальные секции	إحالة إلى الأقسام الخاصة
ific_no	无线电通信局国际频率信息通报编号	Номер ИФИК БР	رقم النشرة الإعلامية الدولية للترددات الصادرة عن مكتب الاتصالات الراديوية (BR IFIC)
d_ific	无线电通信局国际频率信息通报日期	Дата ИФИК БР	تاريخ النشرة الإعلامية الدولية للترددات الصادرة عن مكتب الاتصالات الراديوية
dBiU	启用日期	Дата ввода в действие	تاريخ الدخول في الخدمة
Annex to RES-609	在 1164-1215MHz 频带内有频率指配的、第 609 号决议（WRC-03）附件中所要求的信息已提供给磋商会议的 RNSS 系统	Системы РНСС с присвоениями в полосе частот 1164–1215 МГц, по которым информация в соответствии с Дополнением к Резолюции 609 представлена консультативному собранию.	أنظمة خدمة الملاحة الراديوية الساتلية التي لها تخصيصات تردد في النطاق 1164 - 1215 MHz تم بشأنها تقديم المعلومات المطلوبة في الملحق بالقرار 609 إلى الاجتماع التشاوري.
BR Report (RES 609 instructs the Bureau 2)	无线电通信局的报告，包括该局通过使用第 608 号建议（WRC-07 修订版）附件 1 建议 1 的信息做出的有关功率通量密度值的确定结果	Отчет Бюро с заключениями относительно определения значений ППМ, обозначенных в п. 1 раздела "рекомендует" Рекомендации 608 (rev.ВКР-07) с использованием информации Дополнения 1 к данной Рекомендации.	تقرير المكتب الذي يتضمن النتائج المحددة بشأن قيم كثافة تدفق القدرة المبينة في البند 1 من "يوصي" في التوصية (rev.WRC-07) 608، باستعمال المعلومات المطلوبة في الملحق 1 بالتوصية المذكورة.

ANNEX 1

List of the RNSS systems (as of 08.04.2021) with frequency assignments in the band 1 164-1 215 MHz that meet the criteria listed in Annex to RES 609 (Rev.WRC-07) and Bureau's Report with findings relating to determination of the PFD values

ntc_id	adm	ntwk_org	sat_name	long_nom	ntf_rsn	d_rcv	pub_ref	pub_no	ific_no	d_ific	dBiU	Annex to RES-609 *	BR Report **
113520121	ALG		ALCOMSAT-24.8W	-24,8	C	29.05.2013	CR/C	3389	2753	17.09.2013		11th meeting	N
120500103	ALG		ALCOMSAT-24.8W	-24,8	N	13.05.2020	PART	II-S	2930	29.09.2020	18.12.2017	11th meeting	N
120520200	ARS	ARB	ARABSAT-10F-44.5E	44,5	C	29.10.2020	CR/C	5417	2943	06.04.2021		—	Y
120520202	ARS	ARB	ARABSAT-10G-1E	1	C	29.10.2020	CR/C	5422	2943	06.04.2021		—	Y
120520201	ARS	ARB	ARABSAT-10N-14.7E	14,7	C	29.10.2020	CR/C	5420	2943	06.04.2021		—	Y
120520199	ARS	ARB	ARABSAT-10P-67.5E	67,5	C	29.10.2020	CR/C	5419	2943	06.04.2021		—	Y
120520198	ARS	ARB	ARABSAT-10Q-58.5E	58,5	C	29.10.2020	CR/C	5418	2943	06.04.2021		—	Y
120520203	ARS	ARB	ARABSAT-10Y-9W	-9	C	29.10.2020	CR/C	5421	2943	06.04.2021		—	Y
119520141	ARS	ARB	ARABSAT-9A-30.5E	30,5	C	09.06.2019	CR/C	5045	2905	01.10.2019		—	Y
117520218	ARS	ARB	ARABSAT-9AS-81.5E	81,5	C	26.06.2017	CR/C	4515	2863	06.02.2018		—	Y
119520142	ARS	ARB	ARABSAT-9B-26E	26	C	10.06.2019	CR/C	5046	2905	01.10.2019		—	Y
119520143	ARS	ARB	ARABSAT-9C-20E	20	C	10.06.2019	CR/C	5047	2905	01.10.2019		—	Y
119520144	ARS	ARB	ARABSAT-9E-34.5E	34,5	C	10.06.2019	CR/C	5048	2905	01.10.2019		—	Y
117520216	ARS	ARB	ARABSAT-9F-44.5E	44,5	C	26.06.2017	CR/C	4513	2863	06.02.2018		—	Y
119520145	ARS	ARB	ARABSAT-9G-11E	11	C	10.06.2019	CR/C	5049	2905	01.10.2019		—	Y
117520215	ARS	ARB	ARABSAT-9L-1E	1	C	26.06.2017	CR/C	4514	2863	06.02.2018		—	Y
117520217	ARS	ARB	ARABSAT-9M-67.5E	67,5	C	26.06.2017	CR/C	4516	2863	06.02.2018		—	Y
119520094	AUS		ADF 104E IOR	104	C	28.03.2019	CR/C	5012	2902	20.08.2019		—	Y
119520095	AUS		ADF 140E POR	140	C	28.03.2019	CR/C	5011	2902	20.08.2019		—	Y
119520096	AUS		ADF 156E POR	156	C	28.03.2019	CR/C	5013	2902	20.08.2019		—	Y
119520093	AUS		ADF 88E IOR	88	C	28.03.2019	CR/C	5009	2902	20.08.2019		—	Y

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119520092	AUS		ADF 95E IOR	95	C	28.03.2019	CR/C	5010	2902	20.08.2019		—	Y
120520144	AUS		ADF POR-1	153	C	11.08.2020	CR/C	5360	2936	22.12.2020		—	Y
120520145	AUS		ADF POR-2	168	C	11.08.2020	CR/C	5359	2936	22.12.2020		—	Y
120520090	AUS		AUSSAT-H-156E	156	C	27.05.2020	CR/C	5321	2933	10.11.2020		—	N
120520091	AUS		AUSSAT-H-160E	160	C	27.05.2020	CR/C	5322	2933	10.11.2020		—	N
118520162	CHN		CENTISPACE-1	N-GSO	C	06.07.2018	CR/C	4801	2882	30.10.2018		17th meeting	N
118520283	CHN		CENTISPACE-2	N-GSO	C	11.09.2018	CR/C	4847	2886	08.01.2019		—	N
103500418	CHN		COMPASS-110.5E	110,5	N	11.11.2009	PART	II-S	2681	02.11.2010	17.08.2006	11th meeting	N
103500419	CHN		COMPASS-140E	140	N	17.10.2007	PART	II-S	2658	01.12.2009	17.10.2006	11th meeting	N
109500803	CHN		COMPASS-160E	160	N	16.12.2010	PART	II-S	2701	23.08.2011	24.01.2010	11th meeting	N
103500416	CHN		COMPASS-58.75E	58,75	N	22.12.2010	PART	II-S	2687	08.02.2011	08.12.2006	11th meeting	N
114520052	CHN		COMPASS-80.3E	80,3	C	25.02.2014	CR/C	3567	2777	02.09.2014		—	N
119500051	CHN		COMPASS-80.3E	80,3	N	02.11.2020	PART	II-S	2942	23.03.2021	15.12.2018	—	N
103500417	CHN		COMPASS-80E	80	N	19.09.2019	PART	II-S	2940	23.02.2021	17.06.2006	11th meeting	N
111520204	CHN		COMPASS-B-144.5E	144,5	C	31.05.2011	CR/C	2934	2702	06.09.2011		11th meeting	Y
116500154	CHN		COMPASS-B-144.5E	144,5	N	16.08.2019	PART	II-S	2909	26.11.2019	16.06.2016	11th meeting	Y
111520203	CHN		COMPASS-B-84E	84	C	31.05.2011	CR/C	2933	2702	06.09.2011		11th meeting	Y
116500153	CHN		COMPASS-B-84E	84	N	16.10.2019	PART	II-S	2915	03.03.2020	27.06.2016	11th meeting	Y
103500420	CHN		COMPASS-H	N-GSO	N	16.04.2007	PART	II-S	2596	12.06.2007	26.03.2007	11th meeting	N
112520031	CHN		COMPASS-IGSO	N-GSO	C	18.01.2012	CR/C	3118	2724	24.07.2012		11th meeting	N
118500146	CHN		COMPASS-IGSO	N-GSO	N	02.11.2020	PART	I-S	2936	22.12.2020	18.12.2017	11th meeting	N
103500421	CHN		COMPASS-M	N-GSO	N	16.04.2007	PART	II-S	2596	12.06.2007	16.04.2007	11th meeting	N
110520285	CHN		COMPASS-MEO	N-GSO	C	01.10.2010	CR/C	2740	2686	25.01.2011		11th meeting	N
117500038	CHN		COMPASS-MEO	N-GSO	N	12.06.2020	PART	I-S	2934	24.11.2020	25.07.2015	11th meeting	Y
119520266	CHN		GEESAT-1	N-GSO	C	13.11.2019	CR/C	5162	2922	09.06.2020		—	N
120520014	CHN		QXSI-D1	N-GSO	C	19.01.2020	CR/C	5262	2925	21.07.2020		—	N
101500300	D	GLS	GALILEO-NAV-2004	N-GSO	N	10.10.2006	PART	II-S	2582	14.11.2006	03.03.2006	2d meeting	N
117520117	F		F-SAT-RN-113W	-113	C	17.02.2017	CR/C	4451	2854	19.09.2017		—	Y
117520381	F		F-SAT-RN-5W	-5	C	17.10.2017	CR/C	4593	2868	17.04.2018		16th meeting	N
109520327	F	GLS	GALILEO-2	N-GSO	C	18.12.2009	CR/C	2542	2667	20.04.2010		10th meeting	N
119500116	F	GLS	GALILEO-2	N-GSO	N	10.05.2019	PART	II-S	2901	06.08.2019	27.03.2015	10th meeting	N
100500321	F	GLS	MSATNAV-2	N-GSO	N	08.01.2007	PART	II-S	2588	20.02.2007	03.03.2006	2d meeting	N
101500014	F	GLS	MSATNAV-3	N-GSO	N	08.03.2006	PART	II-S	2588	20.02.2007	03.03.2006	2d meeting	N
103500093	F	GLS	MSATNAV-4	N-GSO	N	08.01.2007	PART	II-S	2588	20.02.2007	03.03.2006	2d meeting	N
116520115	G		GIBSAT-G14-2	-129	C	03.05.2016	CR/C	4088	2832	08.11.2016		—	Y

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109500230	G		INMARSAT GSO-2N	64	N	02.08.2010	PART	II-S	2696	14.06.2011	28.05.2005	11th meeting	N
112500010	G		INMARSAT-4 143.5E	143,5	N	12.01.2012	PART	II-S	2725	07.08.2012	24.02.2009	11th meeting	N
110500194	G		INMARSAT-4 98W	-98	N	30.06.2011	PART	II-S	2710	10.01.2012	07.01.2009	11th meeting	N
115500221	G		INMARSAT-4A 143.5E	143,5	N	19.05.2017	PART	II-S	2885	11.12.2018	19.02.2014	11th meeting	N
114500078	G		INMARSAT-4A 98W	-98	N	02.10.2015	PART	II-S	2822	21.06.2016	17.02.2014	11th meeting	N
115520009	G		INMARSAT-4B 64E	64	C	19.02.2015	CR/C	3773	2801	18.08.2015		11th meeting	N
120500169	G		INMARSAT-4B 64E	64	N	30.06.2020	PART	II-S	2934	24.11.2020	06.12.2015	11th meeting	Y
116520191	G		INMARSAT-6- 108.5E	108,5	C	13.07.2016	CR/C	4157	2838	07.02.2017		—	N
118520061	G		INMARSAT-6- 117E5	117,5	C	07.03.2018	CR/C	4705	2875	24.07.2018		—	N
116520192	G		INMARSAT-6- 147E	147	C	13.07.2016	CR/C	4158	2838	07.02.2017		—	N
116520185	G		INMARSAT-6- 147W	-147	C	13.07.2016	CR/C	4161	2838	07.02.2017		—	N
118520063	G		INMARSAT-6- 148W	-148	C	07.03.2018	CR/C	4704	2875	24.07.2018		—	N
118520138	G		INMARSAT-6- 159W	-159	C	17.05.2018	CR/C	4772	2880	02.10.2018		—	N
116520187	G		INMARSAT-6- 17.5W	-17,5	C	13.07.2016	CR/C	4159	2838	07.02.2017		—	N
116520184	G		INMARSAT-6- 175W	-175	C	13.07.2016	CR/C	4162	2838	07.02.2017		—	N
116520188	G		INMARSAT-6- 21.5E	21,5	C	13.07.2016	CR/C	4154	2838	07.02.2017		—	N
118520062	G		INMARSAT-6-28W	-28	C	07.03.2018	CR/C	4703	2875	24.07.2018		—	N
120520167	G		INMARSAT-6- 54W-R	-54	C	02.09.2020	CR/C	5384	2940	23.02.2021		—	N
116520186	G		INMARSAT-6-57W	-57	C	13.07.2016	CR/C	4160	2838	07.02.2017		—	N
116520189	G		INMARSAT-6-58E	58	C	13.07.2016	CR/C	4155	2838	07.02.2017		—	N
120520168	G		INMARSAT-6-64E- R	64	C	02.09.2020	CR/C	5383	2940	23.02.2021		—	N

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118520080	G		INMARSAT-6-83E5	83,5	C	13.03.2018	CR/C	4714	2877	21.08.2018		—	N
116520190	G		INMARSAT-6-86E	86	C	13.07.2016	CR/C	4156	2838	07.02.2017		—	N
120520074	HOL		NSS-G10-74W	-74	C	06.05.2020	CR/C	5310	2931	13.10.2020		—	Y
117520079	HOL		NSS-G7 135W	-135	C	01.01.2017	CR/C	4398	2851	08.08.2017		—	Y
117520080	HOL		NSS-G7 137W	-137	C	01.01.2017	CR/C	4399	2851	08.08.2017		—	Y
117520082	HOL		NSS-G7 77W	-77	C	01.01.2017	CR/C	4397	2851	08.08.2017		—	Y
118520294	HOL		NSS-G8 139W	-139	C	01.10.2018	CR/C	4858	2889	19.02.2019		—	Y
118520295	HOL		NSS-G8 157W	-157	C	01.10.2018	CR/C	4859	2889	19.02.2019		—	Y
117520471	HOL		NSS-G8-137W	-137	C	12.12.2017	CR/C	4638	2872	12.06.2018		—	Y
119520368	HOL		NSS-G8-3	-148	C	11.12.2019	CR/C	5219	2922	09.06.2020		—	Y
119520077	I		ITASAT-1A	27	C	19.03.2019	CR/C	5004	2902	20.08.2019		—	N
117520475	I		ITASAT-1B	10	C	18.12.2017	CR/C	4646	2872	12.06.2018		—	N
116520110	I		NEWSAT-1A-1E	1	C	15.06.2016	CR/C	4146	2837	24.01.2017		—	N
103500082	I	GLS	GALILEO-M-NAVSTAR	N-GSO	N	08.03.2006	PART	II-S	2639	10.03.2009	03.03.2006	2d meeting	N
116500029	IND		INSAT-NAV(55)	55	N	24.02.2016	PART	II-S	2834	06.12.2016	09.07.2013	10th meeting	N
114520069	IND		INSAT-NAV(93.5)	93,5	C	05.03.2014	CR/C	3580	2778	16.09.2014		—	N
119500107	IND		INSAT-NAV(93.5)	93,5	N	03.05.2019	PART	II-S	2901	06.08.2019	04.08.2016	—	N
108520024	IND		INSAT-NAV-A-GS	N-GSO	C	07.08.2009	CR/C	2160	2657	17.11.2009		10th meeting	N
112500274	IND		INSAT-NAV-A-GS	N-GSO	N	23.11.2012	PART	II-S	2744	14.05.2013	30.04.2012	10th meeting	N
117520274	IND		INSAT-NAV-GS17	N-GSO	C	17.07.2017	CR/C	4544	2866	20.03.2018		15th meeting	N
112520051	IND		INSAT-NAVR(129.5)	129,5	C	22.01.2012	CR/C	3129	2724	24.07.2012		10th meeting	N
119500343	IND		INSAT-NAVR(129.5)	129,5	N	24.10.2019	PART	I-S	2912	21.01.2020	08.05.2016	10th meeting	N
112520044	IND		INSAT-NAVR(32.5)	32,5	C	22.01.2012	CR/C	3122	2724	24.07.2012		10th meeting	N
119500068	IND		INSAT-NAVR(32.5)	32,5	N	07.03.2019	PART	II-S	2909	26.11.2019	20.03.2016	10th meeting	N
117500127	IND		INSAT-NAVR(83)	83	N	02.06.2017	PART	II-S	2872	12.06.2018	26.07.2015	10th meeting	N
112520045	IND		INSAT-NAVR(83)	83	C	13.02.2013	CR/C	3123	2746	11.06.2013		10th meeting	N
112520052	IND		INSAT-NAVR-GS	N-GSO	C	22.01.2012	CR/C	3121	2724	24.07.2012		10th meeting	N
116500272	IND		INSAT-NAVR-GS	N-GSO	N	20.12.2016	PART	I-S	2871	29.05.2018	21.08.2016	10th meeting	N
104500548	J		N-SAT-HEO2	N-GSO	N	28.12.2004	PART	II-S	2603	18.09.2007	28.12.2007	10th meeting	Y
112520494	J		QZSS	N-GSO	C	28.12.2012	CR/C	3322	2743	30.04.2013		10th meeting	Y
116500181	J		QZSS	N-GSO	N	18.01.2019	PART	II-S	2914	18.02.2020	01.06.2017	10th meeting	Y
110500199	J		QZSS-1	N-GSO	N	27.01.2012	PART	II-S	2724	24.07.2012	11.09.2010	10th meeting	Y
118520073	J		QZSS-A	N-GSO	C	31.08.2018	CR/C	4720	2901	06.08.2019		16th meeting	Y

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112520497	J		QZSS-GS4	127	C	28.12.2012	CR/C	3319	2743	30.04.2013		10th meeting	Y
117500337	J		QZSS-GS4	127	N	18.01.2019	PART	II-S	2916	17.03.2020	29.08.2017	10th meeting	Y
118520075	J		QZSS-GS-A1	90,5	C	13.03.2018	CR/C	4715	2877	21.08.2018		—	Y
118520076	J		QZSS-GS-A3	123	C	13.03.2018	CR/C	4716	2877	21.08.2018		—	Y
118520077	J		QZSS-GS-A4	127	C	13.03.2018	CR/C	4717	2877	21.08.2018		—	Y
118520078	J		QZSS-GS-A5	137	C	13.03.2018	CR/C	4718	2877	21.08.2018		—	Y
118520079	J		QZSS-GS-A8	168	C	13.03.2018	CR/C	4719	2877	21.08.2018		—	Y
120520194	KOR		KOREASAT-116N	116	C	14.10.2020	CR/C	5409	2942	23.03.2021		—	Y
118520087	KOR		KOREASAT-128.2E	128,2	C	28.03.2018	CR/C	4726	2878	04.09.2018		—	Y
116520022	LUX		LUX-G10-37-A	-135	C	17.06.2016	CR/C	4147	2837	24.01.2017		—	Y
109520247	LUX		LUX-G6-2-E	5	C	22.10.2009	CR/C	2483	2663	23.02.2010		7th meeting	N
117500155	LUX		LUX-G6-2-E	5	N	19.12.2018	PART	II-S	2897	11.06.2019	05.11.2015	7th meeting	N
117520034	LUX		LUX-G7 105W	-105	C	01.01.2017	CR/C	4370	2851	08.08.2017		—	Y
111520428	LUX		LUX-G7-9-E2	31,5	C	01.12.2011	CR/C	3062	2718	01.05.2012		9th meeting	N
120500077	LUX		LUX-G7-9-E2	31,5	N	25.03.2020	PART	II-S	2928	01.09.2020	15.09.2017	9th meeting	N
115520108	LUX		LUX-G9-38-A	-129	C	08.06.2015	CR/C	3817	2804	29.09.2015		15th meeting	Y
120500041	LUX		LUX-G9-38-A	-129	N	22.01.2020	PART	I-S	2932	27.10.2020	23.12.2017	15th meeting	Y
119520255	MCO		MONASAT-52EC	52	C	16.10.2019	CR/C	5130	2917	31.03.2020		—	Y
119520055	MLA		MEASAT-1C	91,5	C	07.03.2019	CR/C	4974	2900	23.07.2019		18th meeting	Y
120500262	MLA		MEASAT-1C	91,5	N	18.12.2020	PART	I-S	2941	09.03.2021		18th meeting	Y
119520056	MLA		MEASAT-2D	148	C	07.03.2019	CR/C	4975	2900	23.07.2019		—	Y
117520015	NCG		NICASAT-1L	-84,4	C	01.01.2017	CR/C	4367	2851	08.08.2017		—	Y
117500295	NIG		NIGCOMSAT-1R	42,5	N	23.06.2017	PART	II-S	2875	24.07.2018	19.04.2015	4th meeting	N
117520468	NIG		NIGCOMSAT-2B	-16	C	06.12.2017	CR/C	4635	2872	12.06.2018		—	N
117520469	NIG		NIGCOMSAT-2D	-9,5	C	06.12.2017	CR/C	4636	2872	12.06.2018		—	N
118520292	NOR		SLEIPNER-1	NGSO	C	28.09.2018	CR/C	5051	2906	15.10.2019		—	Y
120520149	OMA		OMANSAT-33.5E	33,5	C	19.08.2020	CR/C	5372	2937	12.01.2021		—	Y
120520150	OMA		OMANSAT-54.5E	54,5	C	19.08.2020	CR/C	5371	2937	12.01.2021		—	Y
120520151	OMA		OMANSAT-72.5E	72,5	C	19.08.2020	CR/C	5373	2937	12.01.2021		—	Y
120520152	OMA		OMANSAT-87.25E	87,25	C	19.08.2020	CR/C	5374	2937	12.01.2021		—	Y
120520076	PAK		PAKSAT-MM1-56.5E	56,5	C	08.05.2020	CR/C	5312	2933	10.11.2020		—	Y
117520098	PAK		PAKSAT-MM1-38.2E-KA	38,2	C	29.05.2019	CR/C	4441	2908	12.11.2019		18th meeting	Y
113520165	PNG		RAGGIANA-18	-117	C	01.07.2013	CR/C	3415	2757	12.11.2013		11th meeting	Y
120500063	PNG		RAGGIANA-18	-117	N	02.03.2020	PART	II-S	2931	13.10.2020	13.01.2017	11th meeting	Y
114520045	RUS		GLONASS-M	N-GSO	C	12.02.2014	CR/C	3560	2777	02.09.2014		11th meeting	N

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97500304	RUS		GLONASS-M	N-GSO	N	13.03.2007	PART	II-S	2594	15.05.2007	22.01.2006	11th meeting	N
97500304	RUS		GLONASS-M	N-GSO	N	08.04.2009	PART	II-S	2645	02.06.2009	17.01.2009	11th meeting	N
97500304	RUS		GLONASS-M	N-GSO	N	13.09.2018	PART	II-S	2893	16.04.2019	01.12.2014	11th meeting	N
116520165	S		SMMSAT-11	123	C	09.06.2016	CR/C	4143	2836	10.01.2017		—	Y
115520178	S		SMMSAT-7	55	C	28.09.2015	CR/C	3868	2812	02.02.2016		—	Y
119520187	UAE		NSAT01	NGSO	C	07.08.2019	CR/C	5121	2914	18.02.2020		—	Y
119520188	UAE		NSAT01.001	NGSO	C	07.08.2019	CR/C	5122	2914	18.02.2020		18th meeting	Y
101500582	USA		INTNL SPACE STATION	N-GSO	N	18.12.2006	PART	II-S	2592	17.04.2007	01.04.2002	—	N
109500412	USA		LM-RPS-107.3W	-107,3	N	15.07.2009	PART	II-S	2665	23.03.2010	20.01.2006	2d meeting	Y
109500413	USA		LM-RPS-133W	-133	N	15.07.2009	PART	II-S	2663	23.02.2010	03.11.2006	2d meeting	Y
103500110	USA		NAVSTAR GPS-IIRF	N-GSO	N	01.08.2006	PART	II-S	2645	02.06.2009	10.04.2009	7th meeting	N
118520107	USA		USASAT-80C-1	-125	C	27.04.2018	CR/C	4743	2879	18.09.2018		17th meeting	Y
116500105	USA		USRSR	N-GSO	N	10.04.2017	PART	II-S	2867	03.04.2018	09.12.2015	7th meeting	N

* Administrations that have submitted materials pursuant to §§ 11 b) and/or c) of the *RES-609 Terms of Reference* to one Consultation Meeting, and have had the subject RNSS system or network reflected in the aggregate sharing determination agreed by a Consultation Meeting, need not resubmit the same information to a subsequent Consultation Meeting under the timetable established in §§ 11 b) and/or c), provided that:

- a. The subject network or system remains on the list to be provided for the subsequent Consultation Meeting by the BR under § 11 a) above; and
- b. The administration that submitted the information provides to all administrations on the list provided by the BR in § 11 a) above, with a copy to the BR for information, on or before the deadline established under §§ 11 b) and c) for the subsequent Consultation Meeting, a statement that there have been no material changes in the information previously provided under §§ 11 b) and/or c) for the subject system or network.

Systems for which no input documents have been submitted to the consultation meeting, pursuant to §§ 11 b) and/or c) of the *RES-609 Terms of Reference* to any Consultation Meeting, are identified with the label ‘—’.

** Characteristics of the satellite networks used by administrations were representative of intended or actual operating characteristics, and thus may be different from those characteristics that may be included in the corresponding Article 9 and/or Article 11 filings. These former characteristics were not made available to the Bureau as Appendix 4 data in the electronic format necessary to perform PFD calculations. The Bureau therefore calculated PFD values based on information available to the BR in Article 9 or 11 submissions. “Y” in this column indicates PFD excess, “N” in this column indicates no PFD excess.

PFD values calculated by administrations and submitted under § 1.4 and 1.5 of the Annex to REC 608 (Rev.WRC-07), that are separately available to the participating administrations on the RES-609 web page at: <https://www.itu.int/en/ITU-R/space/Pages/res609.aspx> show no PFD excess over the limit of REC 608 (Rev.WRC-07).

<p style="text-align: center;">PARTIE B</p> <p>Renseignements publiés conformément au <i>point 8 du décide</i> de la Résolution 609 (Rév.CMR-07), en tant que résultats concernant la répartition du brouillage cumulatif en application du <i>point 2 du décide</i> de la Résolution 609 (Rév.CMR-07), que ces résultats correspondent ou non à des modifications éventuelles des caractéristiques publiées de leurs systèmes ou réseaux respectifs.</p>	<p style="text-align: center;">PART B</p> <p>Information referred to in <i>resolves 8</i> of the Resolution 609 (Rev.WRC-07), as results of any aggregate sharing determinations made in application of <i>resolves 2</i> of the Resolution 609 (Rev.WRC-07), without regard to whether such determinations result in any modifications to the published characteristics of their respective systems or networks.</p>	<p style="text-align: center;">PARTE B</p> <p>Información publicada con arreglo al <i>resuelve 8</i> de la Resolución 609 (Rev.CMR-07), como resultado de cualquier decisión sobre compartición combinada tomada en aplicación del <i>resuelve 2</i> de la Resolución 609 (Rev.CMR-07), sin tener en cuenta si dichas decisiones tienen como resultado cualquier modificación en las características publicadas de sus respectivos sistemas o redes.</p>
<p>Ces renseignements ont été communiqués au Bureau par l'Administration de la Fédération de Russie le 24.11.2021, en application des Sections 2 et 14 du mandat de la réunion de consultation organisée conformément à la Résolution 609 (Rév.CMR-07).</p>	<p>This information was communicated to the Bureau by the administration of the Russian Federation on 24.11.2021, pursuant to Section 2 and Section 14 of the Resolution 609 (Rev.WRC-07) Consultation Meeting Terms of Reference.</p>	<p>Esta información fue comunicada a la Oficina por la Administración de la Federación de Rusia el 24.11.2021 con arreglo al punto 2 y al punto 14 del mandato de la reunión de consulta de la Resolución 609 (Rev.CMR-07).</p>

<p style="text-align: center;">B 部分</p> <p>第 609 号决议 (WRC-07 修订版) 做出决议第 8 段所列的信息, 即有关执行第 609 号决议 (WRC-07 修订版) 作出决议第 2 段的集总干扰分摊的确定结果, 不论这一确定结果是否修改其各自系统或网络的已公布特性。</p>	<p style="text-align: center;">ЧАСТЬ В</p> <p>Информация, о которой идет речь в п. 8 раздела "<i>решает</i>" Резолюции 609 (Пересм.ВКР-07) и которая является результатом любого определения условий совместного использования суммарного допустимого уровня согласно пункту 2 раздела "<i>решает</i>" Резолюции 609 (Пересм.ВКР-07), независимо от того, достигнуты ли эти результаты путем изменения объявленных характеристик их соответствующих систем или сетей или нет.</p>	<p style="text-align: center;">الجزء B</p> <p>المعلومات المشار إليها في البند 8 من منطوق القرار 609 (Rev.WRC-07)، أي نتائج ترتيبات التقاسم التراكمي التي يتم التوصل إليها تنفيذاً للبند 2 من منطوق القرار 609 (Rev.WRC-07)، بغض النظر عما إذا كانت هذه الترتيبات سيسفر عنها أي تعديلات في الخصائص المنشورة لأنظمة الإدارات المعنية وشبكاتهما.</p>
<p>此资料由俄罗斯联邦主管部门根据第 609 号决议 (WRC 07, 修订版) 磋商会议职责范围第 2 节和第 14 节, 于 2021 年 11 月 24 日 提交无线电通信局。</p>	<p>Настоящая информация направлена в Бюро администрацией Российской Федерации 24.11.2021 года в соответствии с разделом 2 и разделом 14 круга ведения консультативного собрания по Резолюции 609 (Пересм. ВКР-07).</p>	<p>أبلغت إدارة الاتحاد الروسي المكتب بهذه المعلومات في 2021.11.24، تطبيقاً للقسمين 2 و 14 من اختصاصات الاجتماع التشاوري المنظم وفقاً للقرار 609 (Rev.WRC-07).</p>

Report of the Eighteenth Resolution 609 (Rev WRC-07) Consultation Meeting to the ITU Radiocommunication Bureau

1 INTRODUCTION

Resolution 609 (Rev WRC-07) is titled “Protection of aeronautical radionavigation service systems from the equivalent power flux-density (epfd) produced by radionavigation satellite service networks and systems in the 1 164-1 215 MHz frequency band.”

The resolves: establish the aggregate protection criterion of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$, (resolves 1), establish the basis for Consultation Meetings to achieve this objective (resolves 6); and identify the ITU-R Recommendation M.1642-2 to use to conduct the aggregate calculations (resolves 10).

This report reflects the results of the Eighteenth Resolution 609 Consultation Meeting (CM) and is provided in accordance with the provisions of resolves 8 of Resolution 609.

2 PRIOR CONSULTATION MEETINGS (CM)

2.1 First Consultation Meeting (Geneva, 2003)

The first CM, held in Geneva, Switzerland, December 8-9, 2003, agreed on Terms of Reference for the operation of future CMs. Among other things the Terms of Reference establish specific timelines for the submission of information in satisfaction of the Criteria in the Annex to Resolution 609, for the submission of technical information on individual systems and networks in an agreed format, and for the exchange of aggregate interference calculations among the participants. No aggregate sharing determination was made at the first CM.

2.2 Second Consultation Meeting (Ottawa, 2004)

At the second CM a determination of the epfd level produced by all space stations of 15 RNSS systems and networks was made and agreed. The maximum epfd of all satellites associated with the assessed RNSS systems and networks was $-125.7 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 4.2 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It was noted that the results were based on the use of worst-case assumptions in terms of interference from these RNSS systems and networks into the ARNS.

2.3 Third Consultation Meeting (Munich, 2005)

At the Third CM a determination of the epfd level produced by all space stations of 19 RNSS systems and networks was made and agreed. The maximum epfd of all satellites associated with the assessed RNSS systems and networks was $-125.7 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 4.2 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It was noted that the results were based on the use of worst-case assumptions in terms of interference from these RNSS systems and networks into the ARNS.

2.4 Fourth Consultation Meeting (Bangalore, 2006)

At the Fourth CM a determination of the epfd level produced by all space stations of 22 RNSS systems and networks was made and agreed. The maximum epfd of all satellites associated with the assessed RNSS systems and networks was $-125.7 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 4.2 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It was noted that the results were based on the use of worst-case assumptions in terms of interference from these RNSS systems and networks into the ARNS.

2.5 Fifth Consultation Meeting (Xi'an, May 2008)

At the Fifth CM a determination of the epfd level produced by all space stations of 26 RNSS systems and networks was made and agreed. The maximum epfd of all satellites associated with the assessed RNSS systems and networks was $-122.33 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 0.83 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It is noted that the result is based on the use of worst-case assumptions in terms of interference from RNSS into ARNS.

2.6 Sixth Consultation Meeting (By correspondence, June 2009)

At the Sixth CM a determination of the epfd level produced by all space stations of 25 RNSS systems and networks was made and agreed. The maximum epfd of all satellites associated with the assessed RNSS systems and networks was $-122.82 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 1.32 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It is noted that the result is based on the use of worst-case assumptions in terms of interference from RNSS into ARNS.

2.7 Seventh Consultation Meeting (Toulouse, June 2010)

At the Seventh CM a determination of the epfd level produced by all space stations of 25 RNSS systems and networks was made and agreed. The maximum epfd of all satellites associated with the assessed RNSS systems and networks was $-122.58 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 1.08 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It is noted that the result is based on the use of worst-case assumptions in terms of interference from RNSS into ARNS.

2.8 Eighth Consultation Meeting (Geneva, September 2011)

At the Eighth CM a determination of the epfd level produced by all space stations of 23 RNSS systems and networks was made and agreed. The maximum epfd of all satellites associated with the referenced RNSS networks and systems was $-122.64 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 1.14 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It is noted that the result is based on the use of worst-case assumptions in terms of interference from RNSS into ARNS.

2.9 Ninth Consultation Meeting (Tokyo, October 2012)

At the Ninth CM a determination of the epfd level produced by all space stations of 23 RNSS systems and networks was made and agreed. The maximum epfd of all satellites associated with the referenced RNSS networks and systems was $-121.93 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 0.43 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It is noted that the result is based on the use of worst-case assumptions in terms of interference from RNSS into ARNS.

2.10 Tenth Consultation Meeting (Los Angeles, September 2013)

At the Tenth CM a determination of the epfd level produced by all space stations of 23 RNSS systems and networks was made and agreed. The maximum epfd of all satellites associated with the referenced RNSS networks and systems was $-121.93 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 0.43 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It is noted that the result is based on the use of worst-case assumptions in terms of interference from RNSS into ARNS.

2.11 Eleventh Consultation Meeting (Shenzhen, China, October 2014)

At the Eleventh CM a determination of the epfd level produced by all space stations of RNSS systems and networks was made and agreed. The maximum epfd of all satellites associated with the referenced RNSS networks and systems was $-122.01 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 0.51 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It is noted that the result is based on the use of worst-case assumptions in terms of interference from RNSS into ARNS.

2.12 Twelfth Consultation Meeting (By correspondence, September 2015)

At the Twelfth CM a determination of the epfd level produced by all space stations of RNSS systems and networks was made and agreed. The maximum epfd of all satellites associated with the referenced RNSS networks and systems was $-122.00 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 0.50 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It is noted that the result is based on the use of worst-case assumptions in terms of interference from RNSS into ARNS.

2.13 Thirteenth Consultation Meeting (Auckland, New Zealand, September 2016)

At the Thirteenth CM a determination of the epfd level produced by all space stations of RNSS systems and networks was made and agreed. The maximum epfd of all satellites associated with the referenced RNSS networks and systems was $-121.98 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 0.48 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It is noted that the result is based on the use of worst-case assumptions in terms of interference from RNSS into ARNS.

2.14 Fourteenth Consultation Meeting (By correspondence, September 2017)

At the Fourteenth CM a determination of the epfd level produced by all space stations of RNSS systems and networks was made and agreed. The maximum epfd of all satellites associated with the referenced RNSS networks and systems was $-121.98 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 0.48 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It is noted that the result is based on the use of worst-case assumptions in terms of interference from RNSS into ARNS.

2.15 Fifteenth Consultation Meeting (Abuja, October 2018)

At the Fifteenth CM a determination of the epfd level produced by all space stations of RNSS systems and networks was made and agreed. The maximum epfd of all satellites associated with the referenced RNSS networks and systems was $-121.89 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 0.39 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It is noted that the result is based on the use of worst-case assumptions in terms of interference from RNSS into ARNS.

2.16 Sixteenth Consultation Meeting (Cyberjaya, Malaysia, September 2019)

At the Sixteenth CM a determination of the epfd level produced by all space stations of RNSS systems and networks was made and agreed. The maximum epfd of all satellites associated with the referenced RNSS networks and systems was $-121.84 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 0.34 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It is noted that the result is based on the use of worst-case assumptions in terms of interference from RNSS into ARNS.

2.17 Seventeenth Consultation Meeting (Virtual meeting, October 2020)

At the Seventeenth CM a determination of the epfd level produced by all space stations of RNSS systems and networks was made and agreed. The maximum epfd of all satellites associated with the referenced RNSS networks and systems was $-121.82 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 0.32 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It is noted that the result is based on the use of worst-case assumptions in terms of interference from RNSS into ARNS.

3 THE EIGHTEENTH CONSULTATION MEETING (VIRTUAL MEETING, NOVEMBER 2021)

Calculations of the equivalent PFD (epfd) level produced by all space stations of the referenced RNSS systems and networks from Table 1 were compared and agreed at the Eighteenth Consultation Meeting. The agreed calculations by the participants can be found in Table 2 in the attachment to this Report, along with the aggregate spectral emissions profile in Figure 1.

4 CONCLUSION

The maximum aggregate epfd of satellites associated with the referenced RNSS networks and systems in Table 1 is determined to be no greater than $-121.71 \text{ dB(W/(m}^2\cdot\text{MHz))}$, i.e. 0.21 dB below the Resolution 609 limit of $-121.5 \text{ dB(W/(m}^2\cdot\text{MHz))}$. It is noted that the result is based on the use of worst-case assumptions in terms of interference from RNSS into ARNS.

Attachment

1 Results of the Calculation of the Maximum RNSS Aggregate epfd per Megahertz

Within this Attachment is the description of results of calculating the maximum RNSS aggregate epfd for every one megahertz within the band 1 164 – 1 215 MHz. The methodology for the calculation of the aggregate epfd of an RNSS system, which was used, is described in ITU-R Recommendation M.1642-2, “Methodology for assessing the maximum aggregate epfd at an aeronautical radionavigation service station from all radionavigation satellite service systems operating in the 1 164 -1 215 MHz band”.

2 Results of the Calculation

For the purpose of the calculation, data given by the following RNSS system providers was used:

Table 1: RNSS systems having confirmed characteristics to the Eighteenth Consultation Meeting before the 8 May 2021 submission deadline

	ntc_id	Adm	ntwk_org	sat_name	long_nom	ntf_rsn	d_rcv	pub_ref	pub_no	ific_no	ntc_type
1	118500307	ALG		ALCOMSAT-24.8W	-24.8	N	13.05.2020	PART	2	2930	G
2	103500418	CHN		COMPASS-110.5E1	110.5	N	11.11.2009	PART	2	2681	G
3	103500419	CHN		COMPASS-140E ¹	140	N	17.10.2007	PART	2	2658	G
4	109500803	CHN		COMPASS-160E ¹	160	N	16.12.2010	PART	2	2701	G
5	103500416	CHN		COMPASS-58.75E ¹	58.75	N	22.12.2010	PART	2	2687	G
6	103500417	CHN		COMPASS-80E ¹	80	N	19.09.2019	PART	2	2940	G
7	119500339	CHN		COMPASS-80.3E	80.3	N	02.11.2020	PART	2	2942	G
8	116500153	CHN		COMPASS-B-84E ¹	84	N	16.10.2019	PART	2	2915	G
9	116500154	CHN		COMPASS-B-144.5E ¹	144.5	N	16.08.2019	PART	2	2909	G
10	103500420	CHN		COMPASS-H ¹	N-GSO	N	16.04.2007	PART	2	2596	N
11	119500340	CHN		COMPASS-IGSO ¹	N-GSO	N	02.11.2020	PART	1	2936	N
12	103500421	CHN		COMPASS-M ¹	N-GSO	N	16.04.2007	PART	2	2596	N
13	110520285	CHN		COMPASS-MEO ¹	N-GSO	C	01.10.2010	CR/C	2740	2686	N
14	117500038	CHN		COMPASS-MEO ¹	N-GSO	N	12.06.2020	PART	1	2934	N
15	118520162	CHN		CENTISPACE-1	N-GSO	C	06.07.2018	CR/C	4801	2882	N
16	100500321	F	GLS	MSATNAV-2 ²	N-GSO	N	08.11.2007	PART	2	2588	N
17	117520381	F		F-SAT-RN-5W	-5	C	17.10.2017	CR/C	4593	2868	G
18	109500230	G		INMARSAT GSO-2N	64	N	02.08.2010	PART	2	2696	G
19	115500221	G		INMARSAT-4 143.5E ³	143.5	N	12.01.2012	PART	2	2725	G
20	115500141	G		INMARSAT-4A 143.5E ³	143.5	N	19.05.2017	PART	2	2885	G
21	110500194	G		INMARSAT-4 98W ³	-98	N	30.06.2011	PART	2	2710	G
22	114500078	G		INMARSAT-4A 98W ³	-98	N	02.10.2015	PART	2	2822	G
23	119500068	IND		INSAT-NAVR(32.5)	32.5	N	07.03.2019	PART	2	2909	G
24	116500029	IND		INSAT-NAV(55)	55	N	24.02.2016	PART	2	2834	G
25	117500127	IND		INSAT-NAVR(83)	83	N	02.06.2017	PART	2	2872	G
26	119500343	IND		INSAT-NAVR(129.5)	129.5	N	24.10.2019	PART	1	2912	G
27	116500272	IND		INSAT-NAVR-GS ⁴	N-GSO	N	20.12.2016	PART	1	2871	N
28	117520274	IND		INSAT-NAV-GS17 ⁴	N-GSO	C	17.07.2017	CR/C	4544	2866	N
29	119500107	IND		INSAT-NAV(93.5)	93.5	N	03.05.2019	PART	2	2901	G

	ntc_id	Adm	ntwk_org	sat_name	long_nom	ntf_rsn	d_rcv	pub_ref	pub_no	ific_no	ntc_type
30	104500548	J		N-SAT-HEO2 ⁵	N-GSO	N	28.12.2004	PART	2	2603	N
31	110500199	J		QZSS-1 ⁵	N-GSO	N	27.01.2012	PART	2	2724	N
32	116500181	J		QZSS ⁵	N-GSO	N	18.01.2019	PART	2	2914	N
33	118520075	J		QZSS-GS-A1 ⁵	90.5	C	13.03.2018	CR/C	4715	2877	G
34	117500337	J		QZSS-GS4 ⁵	127	N	18.01.2019	PART	2	2916	G
35	97500304	RUS		GLONASS-M	N-GSO	N	13.03.2007	PART	2	2594	N
36	97500304	RUS		GLONASS-M	N-GSO	N	13.09.2018	PART	2	2893	N
37	109500412	USA		LM-RPS-107.3W	-107.3	N	15.07.2009	PART	2	2665	G
38	118520107	USA		USASAT-80C-1	-125	C	27.04.2017	CR/C	4743	2879	G
39	103500110	USA		NAVSTAR GPS-IIRF ⁶	N-GSO	N	01.08.2006	PART	2	2645	N
40	116500105	USA		USRSR ⁶	N-GSO	N	10.04.2017	PART	2	2867	N
41	117500155	LUX		LUX-G6-2-E	5	N	19.12.2018	PART	2	2897	G
42	120500077	LUX		LUX-G7-9-E2	31.5	N	25.03.2020	PART	2	2928	G
43	119500101	LUX		LUX-G9-38-A	-129	N	22.01.2020	PART	1	2932	G
44	113520165	PNG		RAGGIANA-18	-117	C	01.07.2013	CR/C	3415	2757	G
45	119520055	MLA		MEASAT-1C	91.5	C	07.03.2019	CR/C	4974	2900	G
46	120500262	MLA		MEASAT-1C	91.5	N	18.12.2020	PART	1	2941	G
47	117500295	NIG		NIGCOMSAT-1R	42.5	N	23.06.2017	PART	2	2875	G
48	117520098	PAK		PAKSAT-MM1-38.2E-KA	38.2	C	29.05.2019	CR/C	4441	2908	G
49	119520188	UAE		NSAT01.001	N-GSO	C	07.08.2019	CR/C	5122	2914	N

¹ In accordance with item 5 of the Resolution 609 (Rev.WRC-07) Consultation Meeting Terms of Reference (MOD, Geneva, September 2011), all the listed filings remain available for the COMPASS system and shall be treated as a single RNSS system for purposes of performing the epfd calculations having the characteristics presented in this document.

² In accordance with § 5 of Terms of Reference for the Resolution 609 (Rev. WRC-07) Consultation Meetings, the following filings remain available for Galileo and shall be treated with MSATNAV-2 filing as a single planned RNSS system for purposes of performing the epfd calculations having the characteristics presented in this document: MSATNAV-3 and 4, GALILEO-NAV-2004, GALILEO-M-NAVSTAR and GALILEO-2.

³ where multiple INMARSAT filings are shown for the same orbital location, these represent a single network for the purposes of the Resolution 609 (Rev. WRC-07) consultation process.

⁴ INSAT-NAVR-GS and INSAT-NAV-GS17 shall be treated as a single planned RNSS system for purposes of performing the epfd calculations having the characteristics presented in this document.

⁵ In accordance with item 5 of the Resolution 609 (Rev. WRC-07) Consultation Meeting Terms of Reference (MOD September 2006, Bangalore), the following filings remain available for the Quasi-Zenith Satellite System (QZSS) and shall be treated with the N-SAT-HEO2 filing as a single planned RNSS system for purposes of performing the epfd calculations having the characteristics presented in this document: QZSS-1 (ITU Publication Reference: Part II-S, IFIC: 2724), QZSS (ITU Publication Reference: CR/C/3322, IFIC: 2743), QZSS-A (ITU Publication Reference: CR/C/4720, IFIC: 2877), QZSS-GS-A1 (ITU Publication Reference: CR/C/4715, IFIC: 2877), QZSS-GS-A3 (ITU Publication Reference: CR/C/4716, IFIC: 2877), QZSS-GS4 (ITU Publication Reference: CR/C/3319, IFIC: 2743), QZSS-GS-A4 (ITU Publication Reference: CR/C/4717, IFIC: 2877), QZSS-GS-A5 (ITU Publication Reference: CR/C/4718, IFIC: 2877), QZSS-GS-A8 (ITU Publication Reference: CR/C/4719, IFIC: 2877).

⁶ In accordance with item 5 of the Resolution 609 (Rev. WRC-07) Consultation Meeting Terms of Reference, these filings should be treated together as the NAVSTAR GPS system.)

Detailed characteristics of these systems, which were used for the aggregate computation, are available on the Resolution 609 page within the ITU web site (<https://www.itu.int/ITU-R/go/space-resolution609/en>): see attachment 3 to the Record of Decisions from the Eighteenth Consultation Meeting.

Table 2 and Figure 1 give the results of the maximum aggregate epfd values per MHz, calculated using 1-degree steps in latitude/longitude based on the RNSS systems in Table 1.

Table 2: Maximum RNSS aggregate epfd values per MHz

Center Frequency (MHz)	Max RNSS Agg epfd (dB(W/m2/MHz))	Center Frequency (MHz)	Max RNSS Agg epfd (dB(W/m2/MHz))	Center Frequency (MHz)	Max RNSS Agg epfd (dB(W/m2/MHz))	Center Frequency (MHz)	Max RNSS Agg epfd (dB(W/m2/MHz))
1164	-138.80	1177	-122.94	1190	-135.46	1203	-125.68
1165	-140.30	1178	-123.33	1191	-134.61	1204	-124.79
1166	-140.05	1179	-124.15	1192	-134.69	1205	-124.48
1167	-139.07	1180	-124.56	1193	-135.51	1206	-123.68
1168	-135.87	1181	-125.64	1194	-136.16	1207	-122.53
1169	-132.37	1182	-127.41	1195	-137.77	1208	-123.59
1170	-129.12	1183	-129.81	1196	-138.54	1209	-125.25
1171	-126.67	1184	-132.43	1197	-137.62	1210	-125.85
1172	-125.90	1185	-135.94	1198	-135.36	1211	-126.98
1173	-124.66	1186	-138.94	1199	-132.93	1212	-128.25
1174	-124.00	1187	-141.26	1200	-130.40	1213	-130.11
1175	-123.19	1188	-139.62	1201	-128.40	1214	-132.39
1176	-121.71	1189	-137.26	1202	-126.77	1215	-135.65

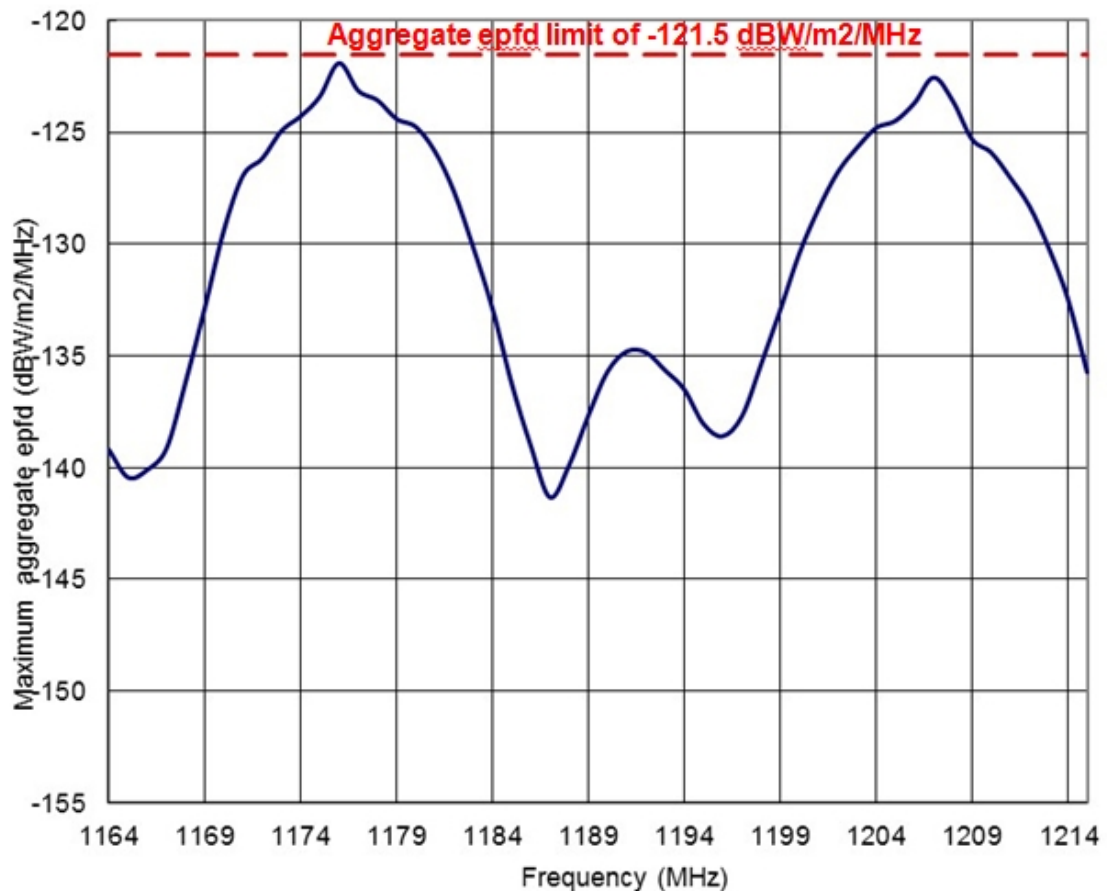


Figure 1: Plot of Table 2 (Maximum RNSS Aggregate epfd per MHz)