

Online tools and electronic communication means for terrestrial services



Online workshop, September 2020

By Andrea Manara
Broadcasting Service Division

## Agenda

- > Tools presentations
  - > eBCD2.0 platform for broadcasting services (new release)
    - > eQuery, ePub, eTools, myAdmin
- > Tool demonstrations

## eBCD2.0 platform for broadcasting services

#### **Portal description**



### **Objectives**

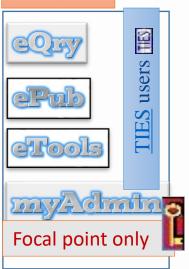
Bring the BR closer to Administrations with added-value services

- Up-to-date broadcasting data
- Special Section at publication date
- Calculation-on-demand
- Easily follow-up on plan modification procedures and related deadlines

#### Outcome

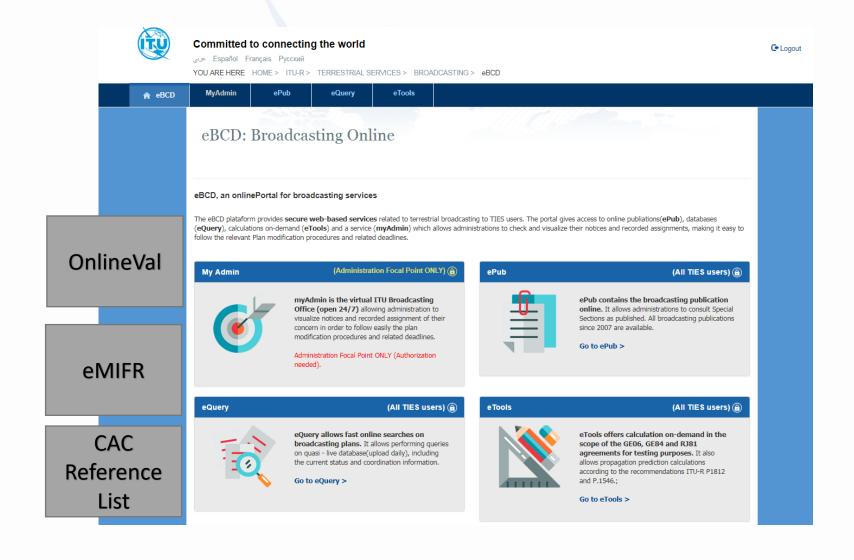
- Reduce workload on both BR and administrations
- Reduce the need for printed documents

# Output



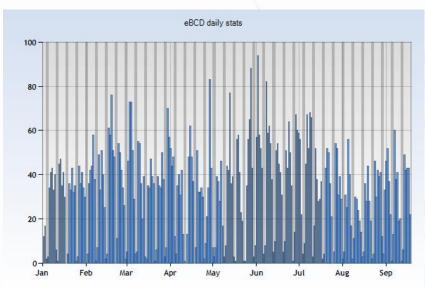


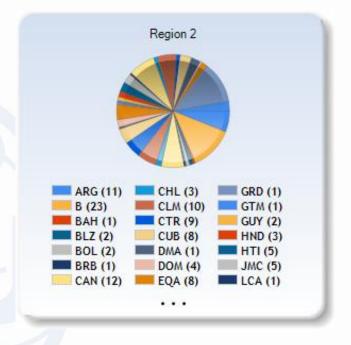
# New Deployment (BETA release): Enhancement and generalization of online tools for terrestrial services



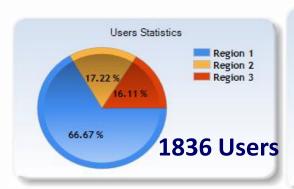


## eBCD2.0 platform for broadcasting services





#### Number of daily logins 2020





#### August 2020 statistics:

221 users, 91 Administrations



## eQry

## "Online search on Plans"

GE06 ST61 GE75 AGGE84 GE89 RJ81

Read-Only copy of BR Database (Updated daily)

## Search by:

- Administration
- Geographic Area
- Frequency
- Administration Unique Identifier
- BR Identification number
- Status (Recorded/Published)
- Site/Allotment name

**Generate e-notice file** (SGML) using TerRaNotices software (SOA) [GE06D,LFMF under testing]. Output downloadable from **eTools**.



#### **ePub**

"Special Sections, the publication day!"

Database Snapshots at publication date

## Search by:

- BR IFIC number
- Administration
  - My notifications
  - Notifications which affects me



### **eTools**

#### "On-demand test calculations"

#### 2020 statistics

**Around 2000 jobs** run by **125 users** from **66 Administrations** 

#### **Calculation Type**

**GE06D Plan Modification** 

GE06D Compatibility Analyses (incl. ATU, ASMG)

**GE84 Compatibility Analyses** 

**GE84 Channel Search** 

**GE84 Optimization** 

**CA Compatibility Analyses** 

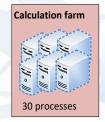
RJ81 Plan modification and what-if studies

ITU-R P.1812 v4 & P.1546 v5

**Notice Generation** 



#### **Back-end infrastructure**



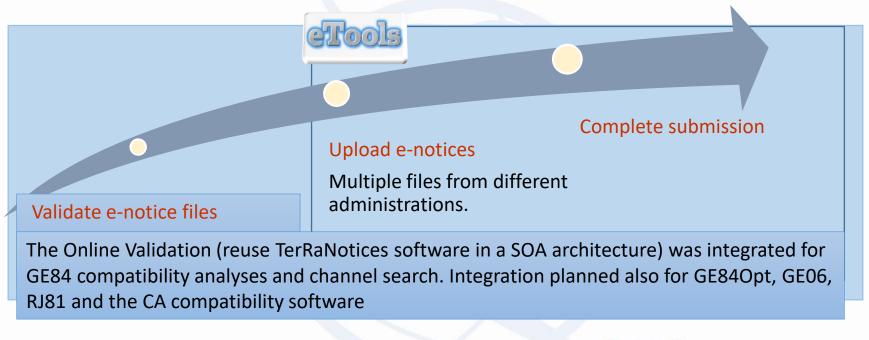
ITU internal farm: 30 processes distributed in such a way to minimize waiting time.

Coverage contours now available!



#### eTools: e-notice submission

GE06, GE84, RJ81, CA Compatibility





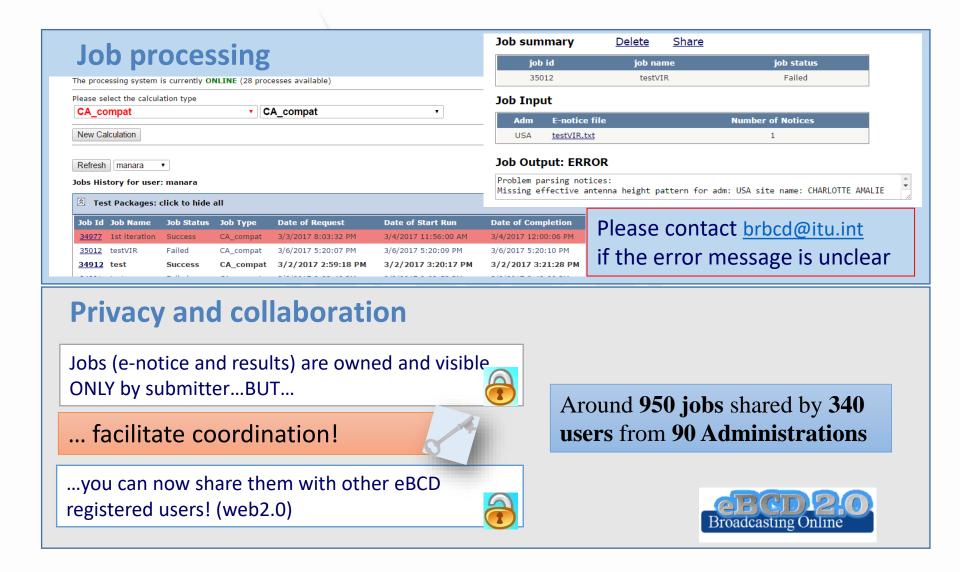
The ITU distributed processing infrastructure will treat your test submission and inform you at completion!



Check your E-mail account!



## eTools: job processing, privacy and collaboration



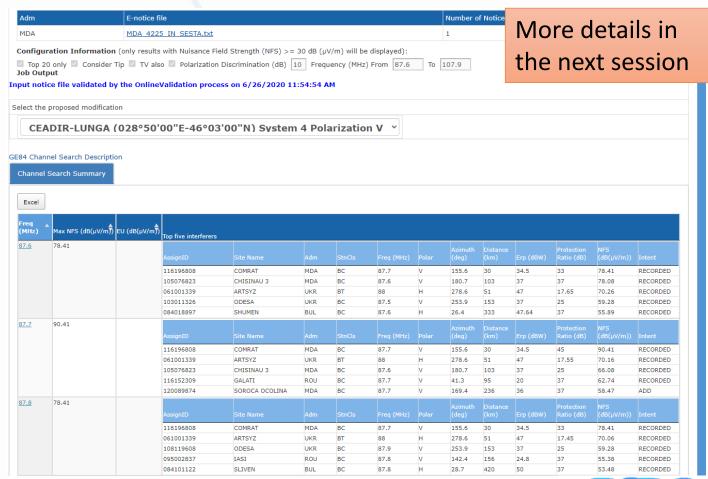


## **GE84 Compatibility Analyses**

	ob Input										More details in						
Adm			E-notice f	ile						Num	ber of No	ices					
вот			BOTempt	<u>ycells.txt</u>						1			the next session				ion
Configuration	n Informatio	n															
Top 20 only	y Consider	Tip 🗹	TV also 🛮	Polariza	tion Discriminat	ion (dB)	10 🗹 Tr	igger NFS	from pro	posed mo	dification	for EU calc	ulations (dB	3 (μV/m))	30		
put notice fil	le validated l	y the O	nlineVali	dation p	ocess on 9/18	3/2020 1	0:54:00	AM									
roposed Modif	fication		Admir	istrations	with which the	limits of	1.3.7.1/4.	3.7.2 are	exceeded						Eu (	dB(μV/m))	
87.7MHz_BT 12 NMB BOT										76.2	6						
Select the prop	osed modifica	tion															
releas the prop	ooca moamca																
87.7MHz	BT 12				~												
E84 Compatibil	lity Analyses [	escriptio	n														
Result In	llity Analyses [ nterference To	•	rference F	rom													
Result In		•		rom										Sparch	y. [		
Result In		•		rom										Search	1:		
Result In		Inte	rference F		Site Name	Total Distance <sup>▼</sup>	Cold Sea Path (Km)	Warm Se <u>a</u> Path (Km)	Super refractivity Path (Km)	ERP (dBW) ♥	Azimuth ∲ (deg)	Protectio <u>n</u> Ratio (dB)	NFS (dB(µV/m))	EII Dof	Proposed	Current E <u>V</u> (dB(µV/m))	EU increase (dB)
Result In	nterference To	Inte	Assigned		Site Name 🛊	Total Distance ♥	Cold Sea Path (Km)	Warm Sea Path (Km)	refractivity	ERP (dBW) ♥	Azimuth ↓ (deg) ▼	(,	NFS (dB(μV/m)) 72.14	EII Dof	Proposed EU <b>♦</b> (dB(µV/m))	( dp(, ) ( ( - V)	increase
Result In  Export to Excel  ssign ID  Adm  Adm  Adm  MA002236 NMB	terference To	Inte	Assigned Frequence (MHz)	Polar 🕏		Distance♥			refractivity Path (Km)	(dBW) ▼	(3)	37	(dB(µV/m))	EU Ref (dB(μV/m))	Proposed EU <b>♦</b> (dB(µV/m))	(dB(µV/m))	increase (dB)
Result In  Export to Excel  ssign ID  Adm  Adm  A4002236 NMB  S4004917 BOT	terference To	Inte	Assigned Frequence (MHz)	Polar 4	MARIENTAL	Distance ₹  262  335	0	0	refractivity Path (Km)	(dBW) ▼ 47	271	37 37	(dB(µV/m)) 72.14	EU Ref (dB(μV/m)) 72.28	Proposed EU ∳ (dB(µV/m)) 77.65	(dB(µV/m)) 72.4	increase (dB) 5.25
Result In  Export to Excel  ssign ID  Adm  84002236 NMB  84004917 BOT  84002194 NMB	aterference To	Inte	Assigned Frequence (MHz) 87.7	Polar <b>4</b>	MARIENTAL GHANZI	Distance ₹  262  335	0	0	refractivity Path (Km) 0 0	(dBW) <b>*</b> 47 47	271 21	37 37 25	(dB(μV/m)) 72.14 64.77	EU Ref (dB(μV/m)) 72.28 63	Proposed EU <b>♦</b> (dB(µV/m)) 77.65 69.13	(dB(μV/m)) 72.4 63.18	increase (dB) 5.25 5.95
Result In  Export to Excel  ssign ID  Adm  84002236 NMB 84004917 BOT 84002194 NMB 84002296 NMB	aterference To  Intent  RECORDED RECORDED RECORDED	Stn Cls \$ BC BC BC BC	Assigned Frequence (MHz) 87.7 87.6	Polar \$ H H H	MARIENTAL GHANZI KEETMANSHOOP	Distance ▼  262  335  332	0 0 0 0	0 0 0 0 0 0	refractivity Path (Km) 0 0 0 0	(dBW) 47 47 47 47 47	271 21 225	37 37 25 25 37	(dB(μV/m)) 72.14 64.77 53.12 52.83 48.04	EU Ref (dB(µV/m))) 72.28 63 66.2	Proposed EU	(dB(μV/m)) 72.4 63.18 66.27	5.25 5.95 1.39 0.04 0.24
Result In  Export to Excel  ssign ID  Adm  84002236 NMB 84004917 BOT 84002194 NMB 84002296 NMB 84004822 BOT	Intent	Stn Cls \$\rightarrow\$ BC BC BC BC BC	Assigned Frequence (MHz)  87.7  87.6  87.6  87.7  87.6	Polar 4 H H H H	MARIENTAL GHANZI KEETMANSHOOP NM 25 BT 15.1 GOBABIS	262 335 332 335 518 276	0 0 0 0 0	0 0 0 0 0	refractivity, Path (Km) 0 0 0 0 0	(dBW) 47 47 47 47 47 47	271 21 225 313 80 322	37 37 25 25 37 12	(dB(μV/m)) 72.14 64.77 53.12 52.83 48.04 45.7	EU Ref (dB(μV/m)) 72.28 63 66.2 70.19 71 91.58	Proposed EU	(dB(µV/m)) 72.4 63.18 66.27 84.48 71 91.58	increase (dB) 5.25 5.95 1.39 0.04 0.24
Result In  Export to Excel  34002236 NMB 3400236 NMB 34004917 BOT 34002194 NMB 84002296 NMB 34004822 BOT 92003524 NMB	Intent	Inte  Stn Cls   BC BC BC BC BC BC BC BC BC	Assigned Frequence (MHz) 87.7 87.7 87.6 87.6 87.7	Polar 4	MARIENTAL GHANZI KEETMANSHOOP NM 25 BT 15.1	262 335 332 335 518	0 0 0 0 0 0	0 0 0 0 0 0	refractivity, Path (Km) 0 0 0 0 0	(dBW) 47 47 47 47 47 47 47	271 21 225 313 80	37 37 25 25 37 12	(dB(μV/m)) 72.14 64.77 53.12 52.83 48.04	EU Ref (dB(μV/m <sup>3</sup> )) 72.28 63 66.2 70.19 71	Proposed EU	(dB(μV/m)) 72.4 63.18 66.27 84.48 71	5.25 5.95 1.39 0.04 0.24
Result In  Export to Excel  ssign ID  Adm  84002236 NMB 84004917 BOT 84002194 NMB 8400296 NMB 84004822 BOT 92003524 NMB 84002560 NMB	terference To  Intent   RECORDED RECORDED RECORDED RECORDED RECORDED RECORDED RECORDED	Stn Cls \$ BC	Assigned Frequence (MHz)  87.7  87.6  87.6  87.7  87.6	Polar 4 H H H H	MARIENTAL GHANZI KEETMANSHOOP NM 25 BT 15.1 GOBABIS	262 335 332 335 518 276	0 0 0 0 0	0 0 0 0 0	refractivity, Path (Km) 0 0 0 0 0	(dBW) 47 47 47 47 47 47	271 21 225 313 80 322	37 37 25 25 37 12	(dB(μV/m)) 72.14 64.77 53.12 52.83 48.04 45.7	EU Ref (dB(μV/m)) 72.28 63 66.2 70.19 71 91.58	Proposed EU	(dB(µV/m)) 72.4 63.18 66.27 84.48 71 91.58	increase (dB) 5.25 5.95 1.39 0.04 0.24
	terference To  Intent  RECORDED RECORDED RECORDED RECORDED RECORDED RECORDED RECORDED RECORDED	Stn Cls \$  BC	Assigned Frequence (MHz) 87.7 87.6 87.7 87.6 87.6 88.8	Polar 4	MARIENTAL GHANZI KEETMANSHOOP NM 25 BT 15.1 GOBABIS NM 71	262 335 332 335 518 276	0 0 0 0 0 0	0 0 0 0 0 0	refractivity, Path (Km) 0 0 0 0 0	(dBW) 47 47 47 47 47 47 47	271 21 225 313 80 322 270	37 37 25 25 37 12 -7 25	(dB(μV/m)) 72.14 64.77 53.12 52.83 48.04 45.7 43.66	EU Ref (dB(μV/m)) 72.28 63 66.2 70.19 71 91.58 62.33	Proposed EU (dB(µV/m)) 77.65 69.13 67.66 84.52 71.24 91.58 62.91 68.26	(dB(μV/m)) 72.4 63.18 66.27 84.48 71 91.58 62.33	increase (dB) 5.25 5.95 1.39 0.04 0.24 0
Result In  Export to Excel  ssign ID  84002236 NMB  84004917 BOT  8400296 NMB  84004822 BOT  92003524 NMB  84002560 NMB  84000411 AFS  84002416 NMB	terference To  Intent  RECORDED	Stn Cls \$  BC	Assigned Frequence Frequen	Polar 4 H H H H H	MARIENTAL GHANZI KEETMANSHOOP NM 25 BT 15.1 GOBABIS NM 71 AUGRABIES	262 335 332 335 518 276 127 452	0 0 0 0 0 0 0	0 0 0 0 0 0 0	refractivity Path (Km)  0  0  0  0  0  0  0  0  0	(dBW) 47 47 47 47 47 47 47 47	271 21 225 313 80 322 270	37 37 25 25 37 12 -7 25 37	(dB(µV/m)) 72.14 64.77 53.12 52.83 48.04 45.7 43.66 41.98	EU Ref (dB(µV/m)) 72.28 63 66.2 70.19 71 91.58 62.33 68.09	Proposed EU (dB(µV/m)) 77.65 69.13 67.66 84.52 71.24 91.58 62.91 68.26	(dB(μV/m)) 72.4 63.18 66.27 84.48 71 91.58 62.33 68.11	increase (dB) 5.25 5.95 1.39 0.04 0.24 0 0.58 0.15
Result In  Export to Excel  ssign ID  84002236 NMB  84002194 NMB  84002296 NMB  84004822 BOT  92003524 NMB  84002560 NMB  84002560 NMB  84000411 AFS	terference To  Intent  RECORDED	Stn Cls \$  BC	Assigned Frequence Frequen	Polar 4 H H H H H H H	MARIENTAL GHANZI KEETMANSHOOP NM 25 BT 15.1 GOBABIS NM 71 AUGRABIES OROS	262 335 332 335 518 276 127 452 604	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	refractivity Path (Km)  0  0  0  0  0  0  0  0  0  0  0  0  0	(dBW) 47 47 47 47 47 47 47 47 47 47 47 47	271 21 225 313 80 322 270 181 324	37 37 25 25 37 12 -7 25 37 37	(dB(µV/m)) 72.14 64.77 53.12 52.83 48.04 45.7 43.66 41.98 40.28	EU Ref (dB(µV/m)) 72.28 63 66.2 70.19 71 91.58 62.33 68.09 72.75	Proposed EU (dB(µV/m)) 77.65 69.13 67.66 84.52 71.24 91.58 62.91 68.26 72.79 69.01	(dB(µV/m)) 72.4 63.18 66.27 84.48 71 91.58 62.33 68.11 72.76	increase (dB) 5.25 5.95 1.39 0.04 0.24 0 0.58 0.15



## **GE84 Channel Search**



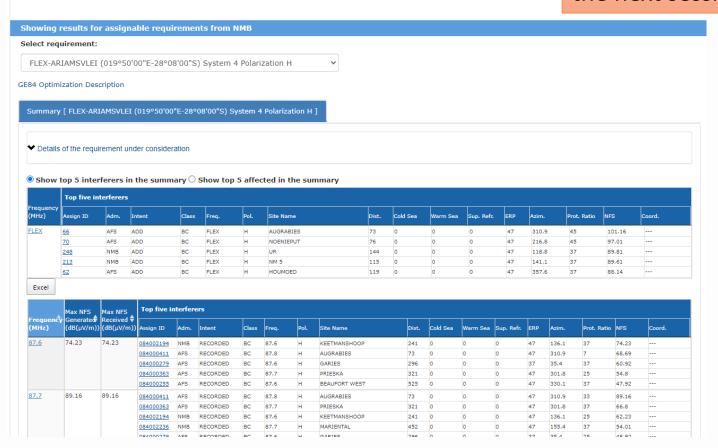




## GE840pt

	\ \		
Adm	Submitted	Assignable	Non Assignable
AFS	177	86	91
NMB	73	<u>73</u>	0

More details in the next session







#### eTools: GE06D calculations



#### **GE06** compatibility analyses

Interference calculations between new notices (from electronic notification files) and existing plan notices and recorded assignments/allotments



Instrumental in planning activities in regional organizations

ATU (2012-2013) ASMG (2014-2015)



#### eTools: ITU-R P series calculations

## P.1812-5(09-19)

Propagation prediction using terrain profile (deterministic model)

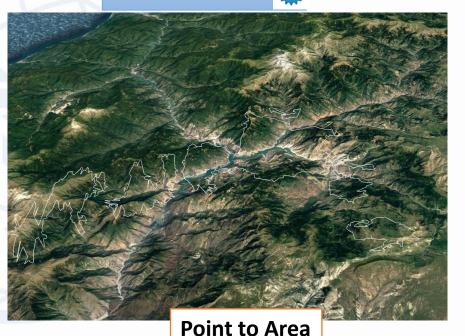
- > 30 MHz 3 GHz
- > 0.25 km 3000 km
- > 1% < time < 50%
- > 1% < locations < 99%
- Rx and Tx hgt agl <= 3km</p>

SRTM3 terrain database 3 arc-sec resol. (90 m) Planned to move to 1 arc-sec (30m) in 2019



Coverage contours now available!

Beta Release!



More during next presentation!



#### eTools: ITU-R P series calculations

## P.1546-6(09-19)

#### Propagation prediction (empirical model)

- > 30 MHz 4 GHz
- > 1 km 1000 km
- > 1% < time < 50%
- > 1% < locations < 99%
- > TX eff hgt <= 3km

Terrain database can be used (clearance angle correction) to improve accuracy

#### **Point to Area**



More during next presentation!



## eTools: CA Compatibility calculations

Interference calculations between **new requirements** (from electronic notification files) and existing MIFR notices and recorded assignments Job summary Delete Share job id job name job status 34899 Success Job Input TRD 34869 IN.txt Job Output MS Access mdb file to be Download results visualized with CA Display

#### COMTELCA

- ➢ Based on the EBU software developed for the RRC06 planning
- Main changes
  - Propagation model ITU-R P.1546-5 (refractive index correction) vs ITU-R P.1546-2 (propagation zones)
  - Protection ratios for all digital standards (vs. DVB-T only)

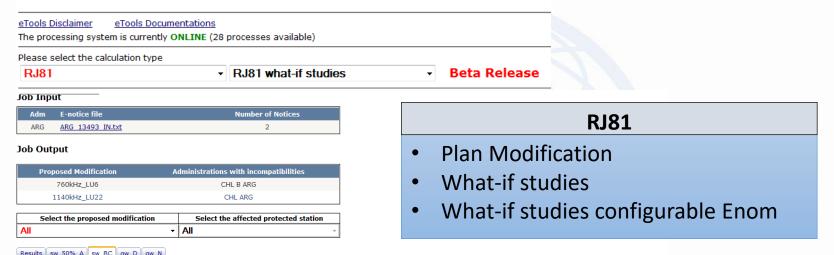
**CA** Display manual

CA compat manual



# eTools: RJ81 plan modification and what-if studies

Following CITEL requests (2014-2015)



ID Numbor	Frequency Assigned (kHz)	Country	Station Name	of	BK Seriai	Frequency Assigned Affected (kHz)	Country	Name	Class of Station Affected	Liet	Time of Operation	Azimuth (deg)	Distance (km)	Symbol	Protected Value (mV/m)	NFS (mV/m)	NFS or EU before (mV/m)	EU after (mV/m)	Note
1	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	Α	N	0	14	Υ	2.65	2.39	4.56	5.15	
1	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	Α	N	20	14	Υ	2.65	2.39	4.56	5.15	
1	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	A	N	40	14	Υ	2.65	2.39	4.56	5.15	
1	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	Α	N	60	14	Υ	2.65	2.41	4.56	5.16	
1	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	A	N	80	14	Υ	2.65	2.42	4.56	5.16	
1	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	A	N	100	14	Υ	2.65	2.44	4.56	5.17	
1	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	Α	N	120	14	Υ	2.65	2.46	4.56	5.18	
1	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	Α	N	140	14	Υ	2.65	2.48	4.56	5.19	
1	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	Α	N	160	14	Υ	2.65	2.5	4.56	5.2	
	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	A	N	180	14	Υ	2.65		4.56	5.21	
	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	A	N	200	14	Υ	2.65		4.56	5.21	
1	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	A	N	220	14	Υ	2.65	2.5	4.56	5.2	
1	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	A	N	240	14	Υ	2.65	2.49	4.56	5.2	
1	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	A	N	260	14	Υ	2.65	2.48	4.56	5.19	
1	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	A	N	280	14	Υ	2.65	2.46	4.56	5.18	
1	760		LU6	В	090001717		В	PLANALTO	В	Α	N	300	14	Υ	2.65	2.44	4.56	5.17	
1	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	Α	N	320	14	Υ	2.65	2.42	4.56	5.16	
1	760	ARG	LU6	В	090001717	760	В	PLANALTO	В	Α	N	340	14	Υ	2.65	2.4	4.56	5.16	
1	760	ARG	LU6	В	081010190	760	В	CANDELARIA	C	A	N	200	11	Υ	4.18	3.63	7.25	8.11	





Focal point only

"My own office for broadcasting services

@ ITU: opening ~24/7"

CR 408: Restricted access to focal point only since November 2016 for myAdmin and e-mail notification services.

AGL ALG ARM ARS AUS AUT AZE BDI BEL BEN BFA BHR BIH BLR BOL BUL CHN CME COG CPV CTI CVA CYP CZE D DJI DNK E EGY EST F FIN G GAB GEO GHA GNE HNG HRV I IND INS IRL IRN J JOR KAZ KGZ KIR KOR LBY LTU LUX LVA MAU MCO MDA MDG MKD MLA MLI MLT MNE MRC MTN NOR NZL OMA PAK PHL POL POR PSE QAT ROU RUS S SDN SEY SNG SRB SSD SUI SVK SVN SYR TGO TUN TUR TZA UAE UGA UKR UZB VTN ZMB ZWE

If focal point not notified → BR will use official email addresses for notification services (BUT no myAdmin access then 🖰)

brbcd@itu.int



Focal point only

## Mailbox: BR Output Channel Communication between the BR and the Member State

#### Notice under review (GE06)



Latest Special Sections annex to the latest BR IFIC (2885) on date 11 Dec 2018



Plan modifications affecting your administration to be published (Internal site ONLY)

	0	<u> </u>	Northern EN-Poss
Plan	Special Section	PubPart	Number of Notices
GE84	271	A	32





### Focal point only

#### Plans and MIFR dashboard

118096171

118096172

118096173

118096174

118096175

118096176

118096177





Your own office for broadcasting services at the ITU (last update: 6 Dec 2018)

Adm(ITU)	MailBox	GE06D	GE06A	<b>GE84</b>	ST61	GE75	RJ81	MIFR
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<u>7609</u>
<u>47</u>
<u>15</u>
24
332
<u>43</u>
<u>38</u>
<u>16</u>

	gle Eart	5 15. Click on h Generate TB		e13 to	3011					
BR Id	<u>Adm</u>	Site Name		signed quency	<u>Intent</u>		End Date (Commen	<u>Coord</u> its) <u>Completed</u>	Objection By	Coord Required
118048845	F	CHATEAU RENAULT VILLEDOMER		95.6	ADD	267		BEL D G HOL I LUX SUI		BEL D G HOL I LUX SUI
118051320	F	CHATEAU RENAULT		99	ADD	267		BEL D G HOL I LUX SUI		BEL D G HOL I LUX SUI
11804884 <u>6</u>	F	CHATEAU RENAULT VILLEDOMER	1	06.8	ADD	267		BEL D G HOL I LUX SUI		BEL D G HOL I LUX SUI
<u>118051319</u>	F	CHAMBERY SAINT SULPICE	1	05.1	MODIFY	267		AUT BEL D E I LIE LUX MCO SUI		AND AUT BEL D E I LIE LUX MCO SUI
SE84/Affected for F  Total number of rec	ords 3	332. Click on h	neader	s to so	rt					ID AUT
		Generate e-notic	es (Expo	arl	Snec	al End Da	ate Coo	rd Objectio	n Coord	E MCO IR SUI
BR Id	Adm		Frequer		nt Secti		nents) Con		Required	
118096168	Е	BRIVIESCA	100.1	ADD	271	21 Mar	2019		AND F POR	
118096169	Е	BRIVIESCA	88.1	ADD	271	21 Mar	2019		AND F POR	
118096170	Е	BRIVIESCA	96.8	ADD	271	21 Mar	2019		AND F POR	
118096171	Е	CERVERA	100.4	ADD	271	21 Mar	2019		AND F	

271

271

271

271

21 Mar 2019

100.4 ADD

89.3 ADD 271

92.6 ADD

97.5

ADD

ADD 271

ADD

PISUERGA

CERVERA

PISUERGA

CERVERA

PISUERGA

CILLAPERLATA

CILLAPERLATA

CILLAPERLATA

GUARDO



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AND F

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## myAdmin: documents in MailBox



Your own office for broadcasting services at the ITU (last update: 6 Dec 2018)

Adm(ITU) MailBox GE06D GE06A GE84 GE75 RJ81 MIFR

Focal point only



Welcome user manara

BR Ou	R Outgoing Correspondence (BETA release)										
Plan	Special Section	Correspondence	Date Letter	Deadline	Document	Number of days for comment/action					
GE84	270	Publication of Special Section	19 Nov 2018	2 Jan 2019	31E(BCD)O-2018-004347	27					
GE84	270	Publication of Special Section	13 Nov 2018	2 Jan 2019	31E(BCD)0-2018-004348	27					
GE06	119	4.1.4.10	29 Sep 2016	8 Nov 2016	31B(BCD)O-2016-003686	expired					
GE84	244	Publication of Special Section	28 Sep 2016	16 Nov 2016	31E(BCD)0-2016-003646	expired					
GE06	121	50 days reminder	5 Oct 2016	30 Oct 2016	31B(BCD)O-2016-003763	expired					
GE06	123	Publication of Special Section	11 Oct 2016	25 Dec 2016	31B(BCD)O-2016-003880	expired					



Your own office for broadcasting services at the ITU (last update: 6 Dec 2018)  $\,$ 

Adm(ITU) MailBox GE06D GE06A GE84 ST61 GE75 RJ81 MIFR

Welcome user manara

#### BR Outgoing Correspondence (BETA release)

Plan	Special Section	Correspondence	Date Letter	Deadline	Document	Number of days for comment/action
GE06	149	Publication of Special Section	27 Nov 2018	10 Feb 2019	31B(BCD)O-2018-004546	66
GE06	119	4.1.4.10	29 Sep 2016	8 Nov 2016	31B(BCD)O-2016-003687	expired
GE84	242	70 days reminder	19 Sep 2016	13 Oct 2016	31E(BCD)0-2016-003471	expired
GE84	244	Publication of Special Section	28 Sep 2016	16 Nov 2016	31E(BCD)O-2016-003652	expired
GE06	123	Publication of Special Section	11 Oct 2016	25 Dec 2016	31B(BCD)O-2016-003883	expired
GE84	243	50 days reminder	1 Nov 2016	29 Oct 2016	31E(BCD)O-2016-004273	expired
GE84	245	Publication of Special Section	25 Oct 2016	14 Dec 2016	31E(BCD)O-2016-004155	expired
GE06	124	Publication of Special Section	9 Nov 2016	22 Jan 2017	31B(BCD)O-2016-004410	expired



Focal point only

#### E-mail notification services



Sun 11/27/2016 4:49 AM

eBCD, ITU



Every Sunday 4.00 a.m.

Recording of new coordinations/objections regarding your plan modifications (FIN)

kari.hautala@ficora.fi; 🗆 kari.kangas@ficora.fi; 🗀 ari.lahtinen@ficora.fi; 🗀 markus.mettala@ficora.fi; 🗀 teemu.ovaska@ficora.fi

Dear Madam/Sir

The Radiocommu

Wed 11/23/2016 4:46 AM

eBCD, ITU

Publication of your proposed plan modifications (G)

□ dowlandt@ties.itu.int; □ freemanp@ties.itu.int; □ ngreen@ties.itu.int; □ hillsala@ties.itu.int; □ jamesmar@ties.itu.int; □ pollitt@ties.itu.int have just been entTo

#### Latest Coordin

assgn_id	pub_
116113557	119
116113558	119
116150059	122

Dear 1

The R the rel

Wed 11/23/2016 4:46 AM eBCD, ITU

Publication of plan modifications affecting your administration (RUS)

□ Shibaeva, Polina (TIES); □ p.shibaeva@grfc.ru; □ Sidelnikova, Svetlana (TIES); □ s.sidelnikova@grfc.ru

Plan

GE84 Dear Madam/Sir

The Radiocommunication Bureau informs you that plan modifications affecting your administration have just been published in the relevant Special Sections annex to BR IFIC 2833, on date 22/11/2016

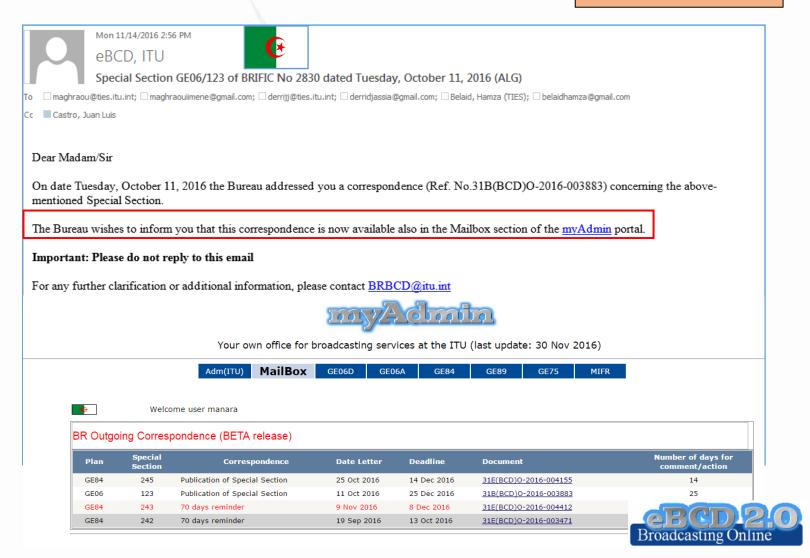
Plan	Special Section	NoNotices
GE84	246	73

For all detailed information please visit ePub



## myAdmin: outgoing correspondence

Focal point only



Thank you!
Questions?

brbcd@itu.int