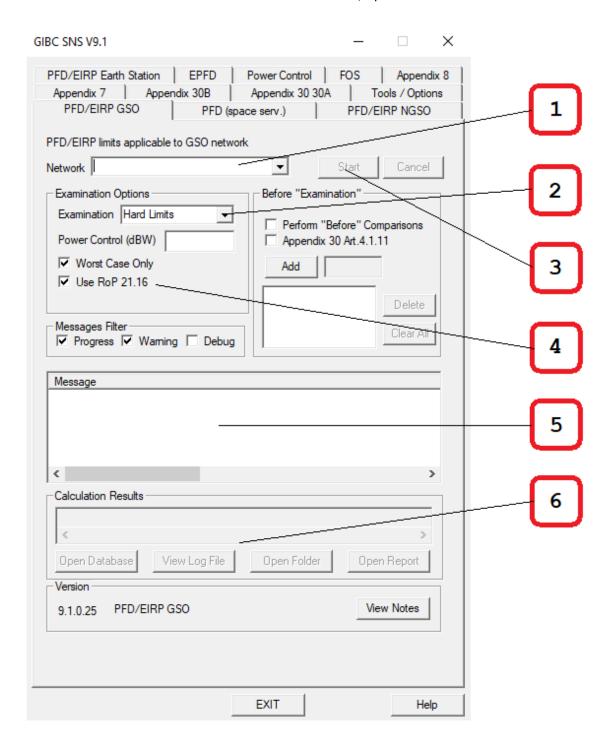# Description of GIBC PFD/EIRP (GSO) software for GSO satellite networks

(Updated on 04/04/2024)

Overview

PFD/EIRP (GSO) is used to examine the compliance of frequency assignments to GSO satellite networks with hard limits, trigger limits or Rec608 level. The tab can be accessed from the main GIBC interface. The SRS database should be selected in the Tools/Options tab.

Procedure to launch the programme:

(1) Enter notice id
(2) Select type of examination:
   o Hard Limits
   o Trigger Limits
   o REC608
(3) Start calculation

Procedure to monitor progress and view results:

(4) Applies the Rules of Procedure of No. 21.16 method where applicable option
(5) Check progress messages during running
(6) Click to view results
   a. Open database: Opens the database containing detailed results
   b. View Log File: Opens the log file
   c. Open Folder: Opens the folder containing results and log files
   d. Open Report: Opens the text report

When an incoming network is submitted under Article 4 of Appendix 30, in addition to the normal procedure indicated above, an examination can also be done with the functionality called "Before "Examination"" by selecting:

- Perform "Before" Comparisons checkbox: Enter the Notice_ID of the corresponding assignments in the Plan or List; or
- Appendix 30 Art.4.1.11 checkbox: Enter the Notice_ID of the corresponding Part A network

Examination Options

Hard Limits

- PFD limits at/above Earth's surface (Table 21-4 of Article 21, Nos. 5.268, 5.407, 5.418, 5.446, 5.462A, 5.493, 5.556A, 5.558A, 5.562C, 5.562H, Resolutions 903 (REV.WRC-19) & 761 (REV.WRC-19)
- EIRP limits, EIRP density limits, off-axis EIRP limits, EIRP towards the horizon or EIRP spectral density towards the horizon (Nos. 5.260A, 5.264A, 5.264B, 5.364, 5.503, 5.506A, 5.538, 21.8, 21.13A, 22.26 (for submissions under AP30B), Resolution 902 (WRC-03))
- PFD limit at GSO (No. 22.40)
- Minimum antenna diameter (Nos. 5.502, 5.532B, 5.506A, 5.509C, 5.555C)
- Minimum elevation angle (Nos. 21.14, 21.15)
- Commitment or Compliance checks (A.16.a, A.16.c, A.17.a, A.17.b.1, A.17.b.2, A.17.d, A.17.e.2, A.18.a, A.19.b)

Trigger Limits

- No. 9.11 - For a space station in the broadcasting-satellite service in any band shared on an equal primary basis with terrestrial services and where the broadcasting-satellite service is not subject to a plan, in respect of terrestrial services.
- No. 9.14 - For a transmitting space station of a satellite network for which the requirement to coordinate is included in a footnote to the Table of Frequency Allocations referring to this

provision or No. 9.11A in respect of receiving stations of terrestrial services where the threshold value is exceeded.

- No. 9.21/C - For any station of a service for which the requirement to seek the agreement of other administrations is included in a footnote to the Table of Frequency Allocations referring to this provision.
- § 4.1.1 d)/4.2.3 d) of Article 4 of Appendix **30 -** For a space station in the broadcasting-satellite service in any band shared on an equal primary basis with terrestrial services and where the broadcasting-satellite service is subject to a plan, in respect of terrestrial services.

REC608

- PFD limit at Earth's surface of Recommendation 608 (REV.WRC-07)

Use of Rec. ITU-R SF.675

Rec. ITU-R SF.675 is automatically applied to assignments from 1 May 2024 (see CR/503) based on the following date fields and using the following method to determine the transmission power used (Pused) in the examination, where applicable.

- When the notice is at Notification(notice.ntf_rsn=N), grp.d_ntf_first it used, if null then use grp.d_rcv, if null then use notice.d_rcv
- When the notice is at Coordination (notice.ntf_rsn=C), grp.d_prot_eff is used, if null then grp.d_rcv, if null then use notice.d_rcv

$$\textbf{Bavg} = \textbf{Bref}$$

Pused = pwr_ds_max * Bref

$$\textbf{Bavg} < \textbf{Bref}$$

If B >= Bref then

If pwr_ds_max * Bref > pep_max then

Pused = pep_max

else

Pused = pwr_ds_max * Bref

else if B < Bref then

Pused = pep_max

$$\textbf{Bavg} > \textbf{Bref}$$

if B < Bref then

Pused = pep_max

else

Pused = pwr_ds_max * Bref

Where

Bavg is the averaging bandwidth in accordance with Recommendation ITU-R SF.675. If the centre frequency of the frequency assignment is below 15 GHz, Bavg = 4 kHz. Otherwise, Bavg = 1 MHz.

Bref is the reference bandwidth (e.g. 4 kHz, 1 MHz, etc.).

pwr_ds_max is the maximum power spectral density of emission.

pep_max is the maximum peak power of emission.

B is the emission bandwidth.

"Use RoP21.16, where applicable" option

With this option on (by default), it applies the Rules of Procedure of No. 21.16 to frequency assignments that satisfy the conditions of the Rule such as for steerable beams and for which a method to meet the regulatory pfd limits is provided. It is available for examinations under "Hard Limits", "Triggers" (only for 11.7-12.2 GHz) and "Rec.608".

With this option off, the Rules of Procedure of No. 21.16 is not applied, and PFD/EIRP (GSO) produces results as before this update.

The programme uses the 0 dB relative gain isoline to determine the steerability limit of the effective boresight of the steerable beam and the antenna pointing (steering) is cycled between 0 and 90 degrees angle of arrival to determine if there is one position of the steerable beam where the applicable PFD limits are met without any reduction of power or power density. In order to take into account gains at various off-axis angles, the following antenna patterns are used in addition to any relative gain contours provided:

- For Fixed-Satellite Service, $G(\emptyset)$ = "REC-672-20DB" (see [Rec.ITU-R S.672](#))
- For other services, use $G(\emptyset)$ = "R13TSS" (see [Doc.4A/185Rev.2](#))

For provisions Nos. 5.493 and 5.407 where the PFD limits are flat over a restricted protected area, the off-axis gain used would not go below Gmax – 3dB in order to avoid artificially meeting PFD limits with very low gains due to large off-axis angles by pointing far away from the protected area.

Results

PFDGSO_report.rtf - A rich text format file containing concise results of the **PFD/EIRP (GSO)** analysis.

PFDGSO_results.mdb - An MS Access database containing detailed results of the **PFD/EIRP (GSO)** analysis. See Annex 1 for details.

To report an issue or to send a suggestion, please contact brsas@itu.int

Annex 1

Details relating to the content of PFDGSO_results.mdb data items

Table Name	Data Item	Type	Description
bef_info			For Plans (Appendix 30 with Before "Examination" option)
	ix_bef_info	Long Integer	pointer to table before_info
	ntc_id	Long Integer	unique identifier of the notice
	adm	Short Text	country symbol of the notifying administration
	ntwk_org	Short Text	symbol of the intergovernmental satellite organization (Table No. 2 of the Preface to the BR IFIC (Space Services))
	d_rcv	Long Integer	date of receipt of the notice
	ntf_rsn	Short Text	code indicating that the notice has been submitted under Appendix 30/30A [B]
	sat_name	Short Text	name of the space station
	long_nom	Single	nominal longitude of the space station, give '-' for West '+' for East
	tol_east	Single	value indicating the planned longitudinal tolerance East of the nominal longitude of the space station
	tol_west	Single	value indicating the planned longitudinal tolerance West of the nominal longitude of the space station
	inclin_exc	Single	inclination excursion
	beam_name	Short Text	designation of the satellite antenna beam
	emi_rcp	Short Text	code identifying a beam as either transmitting [E] or receiving [R]
	pattern	Short Text	the co-polar radiation pattern of the reference table ant_type
	gain	Single	maximum isotropic gain of the antenna expressed in dB with one decimal position
	pnt_acc	Single	for a specific satellite antenna beam the maximum deviation of the antenna in degrees relative to the nominal pointing direction
	rot_acc	Single	satellite beam rotational accuracy
	grp_id	Long Integer	unique identifier of the group
	class_of_stn	Short Text	List of classes of station corresponding to the service(s)
	bdwdth	Long Integer	assigned frequency band expressed in kHz OR the bandwidth of the frequency band, in kHz, observed by the radio-astronomy station OR receiver noise bandwidth processor (for active sensors)
	d_prot_eff	Long Integer	the date from which a list of assignments is taken into account according to the provisions of the RR, as appropriate
	grp_d_rcv	Long Integer	date of receipt of the group
	freq_assgn	Double	assigned frequency
	freq_sym	Short Text	symbol indicating kilohertz [K], megahertz [M] or gigahertz [G]
	design_emi	Short Text	designation of emission
	pep_max	Single	the maximum value of the peak envelope power, supplied to the input of the antenna for each carrier type [dBW] (C8a1/C8b1/C8b3a)

	pwr_ds_max	Single	maximum power density [dBW/Hz] (C8a2/C8b2/C8b3b)
	pwr_ds_nbw	Single	power density [dBW/Hz] averaged over the necessary bandwidth
bef_ntwk_list			For Plans(Appendix 30 with Before "Examination" option). Minimum information of each before notice for writing the header of the report
	ntc_id	Long Integer	notice id of "before" network (comparison with the before situation of BSS transaction, Appendix 30 exam)
	adm	Short Text	country symbol of the notifying administration
	ntwk_org	Short Text	symbol of the intergovernmental satellite organization (Table No. 2 of the Preface to the BR IFIC (Space Services))
	d_rcv	Long Integer	date of receipt of the notice
	ntf_rsn	Short Text	code indicating that the notice has been submitted under Appendix 30/30A [B]
	sat_name	Short Text	name of the space station
	long_nom	Single	nominal longitude of the space station, give '-' for West '+' for East
	tol_east	Single	value indicating the planned longitudinal tolerance East of the nominal longitude of the space station
	tol_west	Single	value indicating the planned longitudinal tolerance West of the nominal longitude of the space station
	inclin_exc	Single	inclination excursion
BR_Internal			Contains records of combination of beam, group and emission of the incoming network.
	ntc_id	Long Integer	unique identifier of the notice
	ntc_type	Short Text	code indicating if the notice is of a geostationary satellite [G]
	ntf_rsn	Short Text	code indicating that the notice has been submitted under 9.6 [C], 11.2 [N]
	adm	Short Text	country symbol of the notifying administration
	ntwk_org	Short Text	symbol of the intergovernmental satellite organization
	d_rcv	Date	date of receipt of the notice
	plan_id	Short Text	identifier of the plan
	st_cur	Short Text	processing status of the notice
	sat_name	Short Text	name of the associated space station
	long_nom	Single	nominal longitude of the associated space station, give "-" for West, "+" for East
	tol_east	Single	value indicating the planned longitudinal tolerance East of the nominal longitude of the space station
	tol_west	Single	value indicating the planned longitudinal tolerance West of the nominal longitude of the space station
	emi_rcp	Short Text	code identifying a beam as either transmitting [E] or receiving [R]
	beam_name	Short Text	designation of the satellite antenna beam
	ss_gain	Single	maximum isotropic gain of the satellite antenna expressed in dB
	rot_acc	Single	satellite beam rotational accuracy
	pnt_acc	Single	the pointing accuracy of the antenna, in degrees
	grp_id	Long Integer	unique identifier of the group
	prov	Short Text	provision of the RR according to which the group is submitted
	freq_min	Double	minimum frequency in MHz (assigned frequency - half bandwidth)
	freq_max	Double	maximum frequency in MHz (assigned frequency + half bandwidth)
	design_emi	Short Text	designation of emission
	pep_max	Single	the maximum/mean value of the peak envelope power, in dBW, supplied to the input of the antenna for each carrier type
	pwr_ds_max	Single	maximum/mean power density [dBW/Hz]

	pwr_ds_nbw	Single	power density [dBW/Hz] averaged over the necessary bandwidth
	emiss_seq_no	Integer	Emission sequence number
downlink_detail_res			contains list of countries with PFD excess in addition to the worst case present in the **downlink_res**.
	ix_detail	Long Integer	pointer to table downlink_res
	seq_no	Integer	sequence number
	elev_ang	Single	angle of arrival above the horizontal plane or elevation angle at the test point in the direction of satellite
	long_dms	Short Text	longitude in degree,min,sec of the worst case test point
	lat_dms	Short Text	latitude in degree,min,sec of the worst case test point
	adm	Short Text	code indicating administration where the worst case is
	ctry	Short Text	code indicating country or geographical area where the worst case is
	pfd_produced	Single	produced pfd value at a test point
	pfd_limit	Single	pfd hard limit value
	pfd_excess	Single	pfd_produced - pfd_limit
downlink_res			Contains results of PFD calculation for downlink beam. Empty if no provision is applicable.
	ntc_id	Long Integer	unique identifier of the notice
	adm	Short Text	country symbol of the notifying administration
	ntwk_org	Short Text	symbol of the intergovernmental satellite organization
	d_rcv	Long Integer	date of receipt of the notice
	ntf_rsn	Short Text	code indicating that the notice has been submitted under 9.6 [C], 11.2 [N]
	st_cur	Short Text	processing status of the notice
	sat_name	Short Text	name of the associated space station
	long_nom	Single	nominal longitude of the associated space station, give "-" for West, "+" for East
	tol_east	Single	value indicating the planned longitudinal tolerance East of the nominal longitude of the space station
	tol_west	Single	value indicating the planned longitudinal tolerance West of the nominal longitude of the space station
	inclin_exc	Single	inclination excursion
	beam_name	Short Text	designation of the satellite antenna beam
	emi_rcp	Short Text	code identifying a beam as either transmitting [E] or receiving [R]
	f_steer	Short Text	code indicating if the beam is steerable (see No. 1.191) or reconfigurable
	pattern	Short Text	co-polar radiation pattern of the reference table ant_type
	gain	Single	maximum isotropic gain of the antenna expressed in dB with one decimal position
	pnt_acc	Single	for a specific satellite antenna beam the maximum deviation of the antenna in degrees relative to the nominal pointing direction
	rot_acc	Single	satellite beam rotational accuracy
	grp_id	Long Integer	unique identifier of the group
	class_of_stn	Short Text	List of classes of station corresponding to the service(s)
	main_class_of_stn	Short Text	main class of station proposed by an algorithm for a group having SOF:ED, EK, ER only in class_of_stn.
	bdwdth	Long Integer	assigned frequency band expressed in kHz OR the bandwidth of the frequency band, in kHz, observed by the radio-astronomy station OR receiver noise bandwidth processor (for active sensors)
	d_inuse	Long Integer	date of bringing into use

d_prot_eff	Long Integer	the date from which a list of assignments is taken into account according to the provisions of the RR, as appropriate
grp_d_rcv	Long Integer	date of receipt of the group
date_2D	Long Integer	date of protection of group if exists, otherwise date of receipt of the notice
date_2D_ref	Short Text	'DP': date of protection of group, 'DR': date of receive of group, 'DN': date of receive of notice, 'DV' date of first notification
fdg_reg	Short Text	findings: conformity with Radio Regulations; Table No. 13A1 of the Preface to the BR IFIC
ssn_type	Short Text	Special Section of the IFIC in which the group was published
pub_ref	Short Text	Symbol indicating the part of the IFIC or the Special Section of the IFIC in which the group was published
pub_no	Integer	the number of the IFIC or or of the Special Section of the IFIC in which the group was published
freq_assgn	Double	assigned frequency
freq_sym	Short Text	symbol indicating kilohertz [K], megahertz [M] or gigahertz [G]
design_emi	Short Text	designation of emission
pep_min	Single	minimum peak envelope power delivered to the antenna [dBW]
pep_max	Single	maximum value of the peak envelope power, supplied to the input of the antenna for each carrier type [dBW] (C8a1/C8b1/C8b3a)
pwr_ds_max	Single	maximum power density [dBW/Hz] (C8a2/C8b2/C8b3b)
pwr_ds_nbw	Single	power density [dBW/Hz] averaged over the necessary bandwidth
ix_provn	Long Integer	sequence number of index of provision in PFD.mdb
provn	Short Text	provision reference
service	Short Text	name of the service(s)
prot_area_name	Short Text	name of the area
refbw	Single	reference bandwidth (MHz)
wc_elev_ang	Single	angle of arrival above the horizontal plane or elevation angle at the test point in the direction of satellite
wc_long_dms	Short Text	longitude in deg,min,sec of the worst case test point
wc_lat_dms	Short Text	latitude in deg, min, sec of the worst case test point
wc_adm	Short Text	code indicating administration where the worst case is
wc_ctry	Short Text	code indicating country or geographical area where the worst case is
off_axis_gain	Single	off-axis gain expressed in dB with one decimal position in the direction of worst case test point
pfd_produced	Single	produced pfd value at a worst case test point
pfd_limit	Single	pfd hard limit value at a worst case test point
pfd_excess	Single	pfd_produced - pfd_limit at a worst case test point
ix_bef_info	Long Integer	pointer to table bef_info
bef_off_axis_gain	Single	off-axis gain expressed in dB with one decimal position in the direction of worst case test point
bef_pfd_produced	Single	produced pfd value at a worst case test point
bef_pfd_limit	Single	pfd hard limit value at a worst case test point
bef_pfd_excess	Single	pfd_produced - pfd_limit at a worst case test point
sas_long_nom	Single	nominal longitude of the associated space station, give "-' for West , "+" for East
sas_sat_name	Short Text	name of the associated space station
sas_beam_name	Short Text	designation of the associated satellite antenna beam
sas_stn_type	Short Text	type of the associated space station: geostationary [G] or non-geostationary [N]

	ix_detail	Long Integer	pointer to table downlink_detail_res
	is_compliance_check	Short Text	'Y' if it is a compliance check; 'N' otherwise
	is_ar5ss	Short Text	'Y' if it is provision 5.538; 'N' otherwise
	fndg_flag	Short Text	'A-' if it is favorable; 'N-' otherwise
	finding	Short Text	Finding if unfavourable
	message	Short Text	message about the examination
	pused_type	Short Text	'B', 'C', 'D' in case mehod power Rec SF.675. Otherwise is 'A'
	pwr_ds_max_used	Short Text	'Y' if pused is derived from pwr_ds_max. Null otherwise.
	arr_ang_rop_met	Double	arrival angle, expressed in decimal degrees, from GSO to the position of boresight where RoP 21.16 is met (boresight_rop_met)
	fndg_reason	Short Text	if RoP applies value can be "RoP 21.16 met", "RoP 21.16 no position". NULL by default
	boresight_rop_met	Short Text	Position of boresight, found by the program, where the RoP 21.16 is met. Only when fndg_reason is "RoP 21.16 met". Otherwise is NULL
findings_H			Contains findings for hard limit examination.
	ntc_id	Long Integer	unique identifier of the notice
	emi_rcp	Short Text	code identifying a beam as either transmitting [E] or receiving [R]
	beam_name	Short Text	designation of the satellite antenna beam
	grp_id	Long Integer	unique identifier of the group
	assgn_seq_no	Long Integer	sequence number of assignment
	emiss_seq_no	Long Integer	sequence number of emission
	eas_seq_no	Long Integer	sequence number of associated earth stations or test points. Value is -1 for intersatellite case
	sas_sat_name	Short Text	name of the associated space station
	sas_beam_name	Short Text	designation of the associated satellite antenna beam
.	fndgs_update	Short Text	[Y] if all combination of assgn, emiss and e_as_stn of a group have either favorable or unfavorable findings. Otherwise is [N].
	fdg_reg	Short Text	Finding: [N-] or [A-]
	fdg_plans_coordn	Short Text	
	fdg_tex	Short Text	
	fdg_emiss_use	Short Text	
	fdg_ref_grp	Short Text	text size corresponds to 10 findings of 12 characters
	prev_fdg_reg	Short Text	Recorded finding from input database: [N-] or [A-] or null
	freq_assgn	Double	assigned frequency
	freq_sym	Short Text	symbol indicating kilohertz [K], megahertz [M] or gigahertz [G]
	design_emi	Short Text	designation of emission
	pep_min	Single	minimum peak envelope power delivered to the antenna [dBW]
	pep_max	Single	the maximum value of the peak envelope power, supplied to the input of the antenna for each carrier type [dBW] (C8a1/C8b1/C8b3a)
	pwr_ds_max	Single	maximum power density [dBW/Hz] (C8a2/C8b2/C8b3b)
	pwr_ds_nbw	Single	power density [dBW/Hz] averaged over the necessary bandwidth
	eas_stn_name	Short Text	name of the transmitting earth station

	eas_stn_type	Short Text	code indicating if the earth station is specific [S] or typical [T]
	eas_long_dec	Double	longitude in degrees with four decimals of the associated specific earth station
	eas_lat_dec	Double	latitude in degrees with four decimals of the associated specific earth station
	sas_stn_type	Short Text	type of the associated space station: geostationary [G] or non-geostationary [N]
	sas_long_nom	Single	nominal longitude of the associated space station, give "-' for West , "+" for East
findings_T			Contains findings of trigger limit examination.
	ntc_id	Long Integer	unique identifier of the notice
	emi_rcp	Short Text	code identifying a beam as either transmitting [E] or receiving [R]. It could be NULL for output at transaction level
	beam_name	Short Text	designation of the satellite antenna beam. It could be NULL for output at transaction level
	grp_id	Long Integer	unique identifier of the group
	coord_prov	Short Text	reference to provision of the RR, Appendix or Resolution
	agree_st	Short Text	code indicating if the coordination or agreement has been triggered [P]
	seq_no	Integer	sequence number
	coord_st	Short Text	flag indicating coordination status
	adm	Short Text	code indicating administration or country
	ntwk_org	Short Text	symbol of the intergovernmental satellite organization (Table No. 2 of the Preface to the BR IFIC)
	ctry	Short Text	code indicating country or geographical area
pfd_clc_head			Contains information about the analysis input data, runtime and outcome of the run.
	onentc_id	Long Integer	ntc_id of one-notice-analysis mode or 0 for all notices analysis
	examination	Short Text	[H]ard Limits, [T]riggers or [R]ecommendation 608
	power_control	Double	power control value entered by the user
	output_level	Long Integer	level of detail of the output
	f_perform_bef	Short Text	'Y' if one want to perform the before comparison (for Plan only!)
	f_ap30_ar4_1_11	Short Text	'Y' if one want to perform the before appendix 30 art 4.1.11 comparison (for Plan only!)
	start_time	Date	date and time of start of analysis
	end_time	Date	date and time of end of analysis
	oper_id	Short Text	unique identifier of the operator
	f_details	Short Text	'Y' if details are stored, 'N' if no details are stored
	input_file	Short Text	Input SRS database filename
	soft_vrs	Short Text	Version of PFD GSO software package
	f_success	Short Text	'Y' if the analysis is successfully completed, 'N' if not
	f_prod	Short Text	For internal ITU use. 'Y' if software version is production, 'N' if test version
	module_id	Short Text	identifier of the module performing the analysis: "AP30 PFD Hard Limit" or "AP30A PFD Hard Limit"
	f_gimsdiag_missing	Short Text	'Y' if at least a necessary GIMS diagram is missing , 'N' otherwise
	f_pused_test	Short Text	'Y' if one wants to perform the pfd calculation using power used derived from test method
	f_rop2116	Short Text	'Y' if one wants to perform the pfd according to the rop2116 rule for steerable beam
provn			Contains summary of the affected administrations in the format of the **provn** table in the SNS database. This table is populated when the program find PFD excess in trigger limit examination.
	grp_id	Long Integer	unique identifier of the group

	coord_prov	Short Text	reference to provision of the RR, Appendix or Resolution
	agree_st	Short Text	code indicating if the coordination or agreement has been triggered [P]
	seq_no	Integer	sequence number
	coord_st	Short Text	code indicating the result of the coordination process
	adm	Short Text	country symbol of the notifying administration
	ntwk_org	Short Text	symbol of the intergovernmental satellite organization (Table No. 2 of the Preface to the BR IFIC)
	ctry	Short Text	country or geographical area
	f_no_comment	Short Text	
tr_provn			For Plans
	ntc_id	Long Integer	unique identifier of the notice
	coord_prov	Short Text	reference to provision of the RR, Appendix or Resolution
	agree_st	Short Text	code indicating if the coordination or agreement has been obtained [O] or requested [R]
	wic_no	Integer	the number of the WIC/IFIC in which the list of assignments was most recently published
	seq_no	Integer	sequence number
	coord_st	Short Text	code indicating status of coordination
	adm	Short Text	country symbol of the notifying administration
	ntwk_org	Short Text	symbol of the intergovernmental satellite organization (Table No. 2 of the Preface to the BR IFIC)
	ctry	Short Text	symbol indicating geographical area
uplink_res			Contains result of EIRP and PFD calculation for uplink beam. Empty if no provision is applicable.
	ntc_id	Long Integer	unique identifier of the notice
	adm	Short Text	country symbol of the notifying administration
	ntwk_org	Short Text	symbol of the intergovernmental satellite organization (Table No. 2 of the Preface to the BR IFIC)
	d_rcv	Long Integer	date of receipt of the notice
	ntf_rsn	Short Text	code indicating that the notice has been submitted under 9.6 [C], 11.2 [N]
	st_cur	Short Text	current processing status of the notice
	sat_name	Short Text	name of the space station
	long_nom	Single	nominal longitude of the space station, give '-' for West '+' for East
	tol_east	Single	value indicating the planned longitudinal tolerance East of the nominal longitude of the space station
	tol_west	Single	value indicating the planned longitudinal tolerance West of the nominal longitude of the space station
	inclin_exc	Single	inclination excursion
	beam_name	Short Text	designation of the satellite antenna beam
	emi_rcp	Short Text	code identifying a beam as either transmitting [E] or receiving [R]
	f_steer	Short Text	code indicating if the beam is steerable (see No. 1.191) or reconfigurable
	pattern	Short Text	co-polar radiation pattern of the reference table ant_type
	Gain	Single	maximum isotropic gain of the antenna expressed in dB with one decimal position
	pnt_acc	Single	for a specific satellite antenna beam the maximum deviation of the antenna in degrees relative to the nominal pointing direction
	rot_acc	Single	satellite beam rotational accuracy
	grp_id	Long Integer	unique identifier of the group

Field	Type	Description
class_of_stn	Short Text	List of classes of station corresponding to the service(s)
main_class_of_stn	Short Text	main class of station proposed by an algorithm for a group having SOF:ED, EK, ER only in class_of_stn.
bdwdth	Long Integer	assigned frequency band expressed in kHz OR the bandwidth of the frequency band, in kHz, observed by the radio-astronomy station OR receiver noise bandwidth processor (for active sensors)
d_inuse	Long Integer	date of bringing into use
d_prot_eff	Long Integer	the date from which a list of assignments is taken into account according to the provisions of the RR, as appropriate
grp_d_rcv	Long Integer	date of receipt of the group
date_2D	Long Integer	date of protection of group if exists, otherwise date of receipt of the notice
date_2D_ref	Short Text	'DP': date of protection of group, 'DR': date of receipt of group, 'DN': date of receipt of notice, 'DV' date of first notification
fdg_reg	Short Text	findings: conformity with Radio Regulations; Table No. 13A1 of the Preface to the BR IFIC
ssn_type	Short Text	Special Section of the IFIC in which the group was published
pub_ref	Short Text	Symbol indicating the part of the IFIC or the Special Section of the IFIC in which the group was published
pub_no	Integer	the number of the IFIC or or of the Special Section of the IFIC in which the group was published
freq_assgn	Double	assigned frequency
freq_sym	Short Text	symbol indicating kilohertz [K], megahertz [M] or gigahertz [G]
design_emi	Short Text	designation of emission
pep_min	Single	minimum peak envelope power delivered to the antenna [dBW]
pep_max	Single	the maximum value of the peak envelope power, supplied to the input of the antenna for each carrier type [dBW] (C8a1/C8b1/C8b3a)
pwr_ds_max	Single	maximum power density [dBW/Hz] (C8a2/C8b2/C8b3b)
pwr_ds_nbw	Single	power density [dBW/Hz] averaged over the necessary bandwidth
ix_provn	Long Integer	sequence number of index of provision
provn	Short Text	provision reference
applied_reg	Short Text	applied regulation
is_commitment_check	Short Text	'Y' if it is a compliance check; 'N' otherwise
fndg_flag	Short Text	'A-' if favorable; 'N-' if unfavorable; NULL if warning
finding	Short Text	Finding if unfavourable
eas_stn_name	Short Text	name of the transmitting earth station
eas_stn_type	Short Text	code indicating if the earth station is specific [S] or typical [T]
eas_long_dec	Double	longitude in degrees with four decimals of the associated specific earth station
eas_lat_dec	Double	latitude in degrees with four decimals of the associated specific earth station
eas_gain	Single	maximum isotropic gain of the antenna expressed in dB with one decimal position
eas_pattern	Short Text	the co-polar radiation pattern of the reference table ant_type
eas_alt_pattern	Short Text	the co-polar radiation alternative pattern of the reference table ant_type
refbw	Single	reference bandwidth (MHz)
eas_diam	Single	earth station antenna diameter (m)
min_diam_limit	Single	minimum earth station antenna diameter (m) defined in the RR 5.502
elevation	Single	elevation angle above the limit
off_axis_gain	Single	off-axis gain expressed in dB with one decimal position in the direction of worst case test point

	eirp_produced	Single	produced eirp value at a worst case test point
	eirp_limit	Single	eirp limit value at a worst case test point
	eirp_excess	Single	eirp_produced - eirp_limit at a worst case test point
	pfd_produced	Single	produced pfd value at a worst case point on Earth (one of the generated test points for Typical earth station or Earth station position for specific earth station)
	pfd_limit	Single	pfd hard limit value (RR 22.40)
	pfd_excess	Single	pfd_produced - pfd_limit at a worst case point on earth
	wc_gso_pos	Single	worst case point in the geostationary satellite orbit (in decimal degrees)
	message	Short Text	message about the examination
	wc_long_dms	Short Text	longitude in deg, min, sec of the worst case test point
	wc_lat_dms	Short Text	latitude in deg, min, sec of the worst case test point
	wc_ctry	Short Text	code indicating country or geographical area where the worst case is
	pused_type	Short Text	'B', 'C', 'D' in case mehod power Rec SF.675. Otherwise is 'A'
	pwr_ds_max_used	Short Text	'Y' if pused is derived from pwr_ds_max. Null otherwise
version			Contains the version of the database PFDGSO_Results.mdb.
	template	Short Text	Version of PFDGSO_Results.mdb. The highest number is the current version.
	comment	Short Text	Give information when the version change. It could be information on the compatibility with a version of SRS database or the reason of modifications in PFDGSO_Results.mdb.