

ULS Database Public Access Files

The Universal Licensing System (ULS) public access files are available for download. These files contain application data or license data, and anyone can download them directly to their own computer. Data is downloaded as a zipped file. Any of the popular "zip" utilities can be used to unzip the file. Unzipping a downloaded file causes a number of data files to be stored on your computer. Each zipped file contains a set of data files named *xx.dat* where *xx* are 2 unique characters to indicate the content of the specific data file.

Zipped Files. The zipped file contains either complete application data or license data for a specific radio service, and contains all the licenses or applications that exist for that radio service or daily application data or license data that contains only the previous day's transactions; i.e., those applications or licenses that were brand new or modified "yesterday." The name of each downloaded file identifies its content. The naming convention for complete files is *c_ssss.zip* where *c* indicates the content ("L" for licenses or "A" for applications), *sssss* indicates the service (such as "aircr" for aircraft). For example *a_amat.zip* contains a file having all application data for the Amateur radio service. The naming convention for daily files is *c_ss_ddd.zip* where *c* indicates the content ("L" for licenses or "A" for applications), *ss* indicates the service (such as "am" for amateur) and *ddd* is the day of the week. For example, *l_am_wed.zip* contains new or changed amateur licenses from Wednesday.

The ULS zipped public access files can be reached by going to the "Downloads" section of the ULS home page. Under the "Downloads" section are two hyperlinks – "Databases" and "Daily Transaction Files". Click on either link as appropriate. The complete files are created early Sunday morning and the daily files are created early Tuesday through Saturday mornings. The file created on Tuesday contains Monday data; Wednesday contains Tuesday data and so on.

NOTE: A file size of 160 bytes indicates that there were no new or modified applications or licenses for that radio service for that day.

Data Files. The dat files produced by unzipping a downloaded file will vary depending on which radio service data you selected and whether you are downloading applications or licenses. Each data file contains a specific type of data (e.g., names and addresses, location data) and the data is pipe-separated. Each record type starts with the same unique 2-character record type code that identifies the table from which the data was extracted. The last data field is not followed by a "|".

Each data file has a name of the form *xx.DAT*, where *xx* indicates which table the data came from. In fact, each data file has the same name as its corresponding table; for example, file *FR.dat* contains the data from table *PUBACC_FR*. Look for the *FR* tab in the excel spreadsheet that is available on the Public Access web page.

Definition Files. Three files containing definitions are available for downloading:

- pa_ddefnn.xls is an Excel file containing definitions of the data fields in the database tables where *nn* is a number that increases as the file is updated.
- pa_ddefnn.sql contains the SQL for the table definitions where *nn* is a number that increases as the file is updated.
- pa_codesn.doc contains meanings of codes for the code data elements in the tables where *n* is a number that increases as the file is updated.

Available Services

Public access files are created for all of the radio services that are contained in ULS. As additional services are added to ULS, public access files will be made available for those as well. The file pa_ddefnn.sql has all the SQL table definitions for Amateur, Aircraft, GMRS, FRC, Ship, Paging, Cellular, Coast & Ground, Land Mobile, BRS/EBS, Microwave and Market-based applications and licenses. In addition, since transfers of control or assignments can cross multiple radio services, a separate file is created which contains these applications. Once these applications are consummated, each of the licenses will be updated appropriately. The next day, those licenses will be contained in the appropriate service's daily zip file.

Data Files

Each data file has the same name as the table the data was extracted from; for example, hd.dat contains the data from table PUBACC_HD. Following are tables that summarize the available data tables associated with the following services:

- Table 1 summarizes the tables for the Aircraft, GMRS, Amateur, Ship and FRC services that are filed for using FCC Form 605.
- Table 2 summarizes the tables for the Market-based, Paging, Cellular, Coast & Ground, Land Mobile, Microwave and BRS/EBS services.

Paging, Cellular, Coast & Ground, Land Mobile, Microwave and BRS/EBS services are referred to as site-based to distinguish them from market-based services. Applications related to these services are filed using FCC Form 601.

- Table 3 summarizes the tables for Assignments and Transfers, FCC Form 603.
- Table 4 summarizes the tables for Spectrum Leasing, FCC Form 608.
- Table 5 summarizes the radio services included in each public access download file.

Note that these tables show the hierarchy of the data tables for each service, and which data tables are required (R) or optional (O) for the applications and licenses within a service.

Table 1. Public Access Tables for the Aircraft, GMRS, Amateur, Ship and FRC Services

Tables	Table Contents	Aircraft		GMRS		Amateur		Ship		FRC	
Hierarchy		App	Lic	App	Lic	App	Lic	App	Lic	App	Lic
HD	Main Form 605 data that carries over to the license	R	R	R	R	R	R	R	R	R	R
AD	Main Form 605 data that does not carry over to the license	R		R		R		R		R	
RE	Application return or dismissal reasons	O		O		O		O		O	
EN	Names and addresses	R	R	R	R	R	R	R	R	R	R
IA	International Addresses									O	O
CO	FCC Comments	O	O	O	O	O	O	O	O	O	O
HS	Application/License History	R	R	R	R	R	R	R	R	R	R
SC	License Level Canned Special Conditions		O		O		O		O		O
SF	License Level Free Form Special Conditions		O		O		O		O		O
AC	Aircraft data	R	R								
AM	Amateur data					R	R				
VC	Requested vanity call sign					O					
SH	Ship data							R	R		
SE	Ship Exemption							O	O		
SV	Ship Voyage							O	O		
FA	FRC data									R	R
AT	Attachment information	O		O		O		O		O	
LA	License Attachment information		O		O		O		O		O

Table 2. Public Access Tables for the Market-based and Site-based Services

Tables	Table Contents	Market-based		Paging		Cellular		Micro wave		Land Mobile		Coast & Ground		BRS/EBS	
Hierarchy		App	Lic	App	Lic	App	Lic	App	Lic	App	Lic	App	Lic	App	Lic
HD	Main Form 601 data that carries over to license	R	R	R	R	R	R	R	R	R	R	R	R	R	R
AD	Main Form 601 data that does not carry over to license	R		R		R		R		R		R		R	
A2	Additional Application data that does not carry over to the license							R						O	
BT	Business Type	O													
RE	Application return or dismissal reasons	O		O		O		O		O		O		O	
EN	Names and addresses	R	R	R	R	R	R	R	R	R	R	R	R	R	R
CO	FCC Comments	O	O	O	O	O	O	O	O	O	O	O	O	O	O
HS	Application and License history	R	R	R	R	R	R	R	R	R	R	R	R	R	R

Tables	Table Contents	Market-based		Paging		Cellular		Micro wave		Land Mobile		Coast & Ground		BRS/EBS	
		App	Lic	App	Lic	App	Lic	App	Lic	App	Lic	App	Lic	App	Lic
IR	IRAC status						O	O	O		O		O		
CS	COSER status						O	O	O		O		O		
LM	Land Mobile administrative data									O	R				
MW	Microwave administrative data							O	R						
MI	BRS/EBS administrative data													O	R
CG	Coast & Ground administrative data											O	R		
BC	Broadcast Call Signs							O	O	O	O				
AS	Associated Call Signs									O	O				
FC	Frequency Coordination							O		O		O			
SC	License Level Canned Special Conditions		O		O		O	O	O		O		O		O
SF	License Level Free Form Special Conditions		O		O		O	O	O		O		O		O
BO	License build out data		R												
UA	Unreserved Area					O	O								
CP	Control point data			O	O	O	O	O	O	O	O	O	O		
SI	SID number					O	O								
MK	Market data	R	R			O	O								
TL	Tribal Lands data	O	O												
CF	Multiple call signs or file numbers affected by this application	O		O		O		O		O		O		O	
AG	Agreement	O													
AP	Agreement Party	O													
MP	P&D market data	O	O												
MF	Disaggregated frequency data	O	O												
MC	Partition coordinates	O	O												
LO	Location data	O	O	O	R	O	R	O	R	O	R	O	R	O	O
L2	Additional Location data							O	O	O	O			O	O
OP	Area of operation text									O	O	O	O	O	O
LS	Location Level Canned Special Conditions				O		O	O	O		O		O		O
LF	Location Level Free Form Special Conditions				O		O	O	O		O		O		O
BL	Location build out data						R								
AN	Antenna data			O	R	O	R	O	R	O	R	O	R	O	R
RC	Receiver data							O	O						
RZ	Receive Zone data														
FR	Frequency data		R	O	R	O	R	O	R	O	R	O	R	O	O
F2	Additional frequency data							O	O					O	O
TP	Transmission Method or Protocol							R	R						
FT	Frequency Type													O	O

Tables		Table Contents	Market-based		Paging		Cellular		Micro wave		Land Mobile		Coast & Ground		BRS/EBS	
Hierarchy			App	Lic	App	Lic	App	Lic	App	Lic	App	Lic	App	Lic	App	Lic
	FS	Frequency Level Canned Special Conditions				O		O	O	O		O		O		O
	FF	Frequency Level Free Form Special Conditions				O		O	O	O		O		O		O
	BF	Frequency build out data				R				R		R		R		O
	RA	Radial data			O	O	O	R								
	EM	Emission data			O	O	O	O	O	R	O	R	O	R	O	O
	PC	Points of Com data					O	O								
	PA	Paths							O	R						
	SG	Segments							O	R						
	AT	Attachment information	O		O		O		O		O		O		O	
	LA	License Attachment Info		O		O		O		O		O		O		O
	BE	BRS/EBS Specific Questions													R	R
	ME	MEA Number														O
	MH	Channel Plan Information														O
	LL	Lease Link (see Table 4 for Applications)	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O
	LC	Lease Classification (see Table 4 for Applications)	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O
	L3	Leased Location (see Table 4 for Applications)	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O
	L4	Additional Leased Location (see Table 4 for Applications)	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O
	O2	Leased Location Area of Operation (see Table 4 for Applications)	N/A	N/A	N/A	O	N/A	N/A	N/A	O	N/A	O	N/A	O	N/A	O
	L5	Leased Location Canned Special Conditions (see Table 4 for Applications)	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O
	L6	Leased Location Free-Form Special Conditions (see Table 4 for Applications)	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O
	A3	Leased Antenna (see Table 4 for Applications)	N/A	N/A	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O
	F3	Leased Frequency (see Table 4 for Applications)	N/A	N/A	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O
	F4	Additional Leased Frequency (see Table 4 for Applications)	N/A	N/A	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O
	F5	Leased Frequency Canned Special Conditions (see Table 4 for Applications)	N/A	N/A	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O
	F6	Leased Frequency Free-Form Special Conditions (see Table 4 for Applications)	N/A	N/A	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O	N/A	O

Tables				Table Contents	Market-based		Paging		Cellular		Micro wave		Land Mobile		Coast & Ground		BRS/EBS	
Hierarchy					App	Lic	App	Lic	App	Lic	App	Lic	App	Lic	App	Lic	App	Lic
	P2			Leased Microwave Path (see Table 4 for Applications)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	O	N/A	N/A	N/A	N/A	N/A	N/A

Table 3. Public Access Tables for Assignment and Transfer Applications

Tables	Table Contents	AA/TC
Hierarchy		App
HD	Main Form 603 data that carries over to the license	R
AD	Main Form 603 data that does not carry over to license	R
A2	Additional Application Detail	
RE	Application return or dismissal reasons	O
CF	Multiple call signs or file numbers affected by this application	R
EN	Names and addresses for licensees, contacts, transferees, assignees, transferors, assignors, owners	R
CO	FCC comments	O
HS	Application and License history	R
TA	Transfer/Assignment data	R
BD	Designated Entity	R
MK	Market data	O
MP	Partition market data	O
MF	Disaggregated frequency data	O
MC	Partition coordinates	O
AT	Attachment information	O

Table 4. Public Access Tables for Spectrum Lease Applications

Tables	Table Contents	LN	LM	LT	LC	LE	LU
Hierarchy		App	App	App	App	App	App
HD	Main Form 608 data that carries over to the license	R	R	R	R	R	R
AD	Main Form 608 data that does not carry over to license	R	R	R	R	R	R
A2	Additional Application Detail	O	O	O	O	O	O
RE	Application return or dismissal reasons	O	O	O	O	O	O
CF	Multiple call signs or file numbers affected by this application	R	N/A	R	R	R	O
EN	Names and addresses for licensees, contacts, transferees, assignees, transferors, assignors, owners	R	R	R	R	R	R
CO	FCC comments	O	O	O	O	O	O

Tables	Table Contents	LN	LM	LT	LC	LE	LU
Hierarchy		App	App	App	App	App	App
HS	Application and License history	R	R	R	R	R	R
TA	Transfer/Assignment data	R	N/A	R	N/A	R	N/A
BD	Designated Entity	R	N/A	R	N/A	N/A	N/A
MK	Market data	O	N/A	N/A	N/A	N/A	N/A
MP	Partition market data	O	N/A	N/A	N/A	N/A	N/A
MF	Disaggregated frequency data	O	N/A	N/A	N/A	N/A	N/A
MC	Partition coordinates	O	N/A	N/A	N/A	N/A	N/A
AT	Attachment information	O	O	O	O	O	O
RI	Gross Revenue Information	O	N/A	O	N/A	N/A	N/A
CD	Closed Bidding/Designated Entity Information	O	N/A	O	N/A	N/A	N/A
LC	Lease Classification	R	N/A	N/A	N/A	N/A	N/A
LD	Lease Dates	R	N/A	N/A	R	R	N/A
LO	Location Data	O	O	N/A	N/A	N/A	N/A
L2	Additional Location Data	N/A	O	N/A	N/A	N/A	N/A
AN	Antenna Information	O	O	N/A	N/A	N/A	N/A
FR	Frequency Information	O	N/A	N/A	N/A	N/A	N/A
PA	Path Information	O	N/A	N/A	N/A	N/A	N/A

Since data can differ from service to service, you will find that particular columns in certain tables will always be null for some services but contain data for other services.

Table 5. Radio Services Included in Download Files

Download File	Radio Service	Radio Service Description
Aircraft - 47 CFR Part 87		
	AC	Aircraft
Amateur Radio Service		
	HA	Amateur
	HV	Vanity
Antenna Structure Registration		
	N/A	
Airport Facilities – 47 CFR Part 17		
	N/A	
Assignments and Transfers		
	AL	All

Download File	Radio Service	Radio Service Description
BRS & EBS (Formerly known as MDS/ITFS)		
	BR	Broadband Radio Service
	ED	Educational Broadband Service
	MD	Multipoint Distribution Service (MDS and MMDS)
	VX	Instructional Television Fixed Service
Cellular – 47 CFR Part 22		
	CL	Cellular
Comm. Radio and Restricted Radiotelephone - FRC		
	CM	Commercial Operator
	RR	Restricted Operator
General Mobile Radio Service (GMRS)		
	ZA	General Mobile Radio (GMRS)
Land Mobile - Private		
	GB	Business, 806-821/851-866 MHz, Conventional
	GE	Public Safety/Special Emergency and Public Safety, National Plan, 806-817/851-862 MHz, Conv
	GF	Public Safety Ntl Plan, 821-824/866-869 MHz, Conv.
	GI	Other Indust/Land Transp, 896-901/935-940 MHz, Conv.
	GJ	Business and Industrial/Land Transportation (809 - 824 and 8
	GO	Other Indust/Land Transp, 806-821/851-866 MHz, Conv.
	GP	Public Safety/Spec Emerg, 806-821/851-866 MHz, Conv.
	GU	Business, 896-901/935-940 MHz, Conventional
	IG	Industrial/Business Pool, Conventional
	IQ	DSRC / Intelligent Transportation Service
	PA	Public Safety 4940-4990 MHz Band
	PW	Public Safety Pool, Conventional
	QM	Non-Nationwide Public Safety/Mutual Aid, 220 MHz
	QQ	Intelligent Transportation Service (Non-Public Safety)
	RS	Land Mobile Radiolocation
	SG	Conventional Public Safety 700 MHz
	SL	Public Safety 700 MHz Band-State License
	SP	700 MHz Public Safety Broadband Nationwide License
	SY	Trunked Public Safety 700 MHz
	YB	Business, 806-821/851-866 MHz, Trunked
	YE	Public Safety/Special Emergency and Public Safety, National National Plan, 806-817/851-862 MHz, Trunked
	YF	Public Safety Ntl Plan, 821-824/866-869 MHz, Trunked
	YG	Industrial/Business Pool, Trunked
	YI	Other Indust/Land Transp. 896-901/935-940 MHz, Trunked
	YJ	Business and Industrial/Land Transportation (809 - 824 and 854-869 MHz, Trunked
	YO	Other Indust/Land Transp. 806-821/851-866 MHz, Trunked
	YP	Public Safety/Spec Emerg, 806-821/851-866 MHz, Trunked
	YU	Business, 896-901/935-940 MHz, Trunked
	YW	Public Safety Pool, Trunked

Download File	Radio Service	Radio Service Description
Land Mobile - Commercial		
	GL	900 MHz Conventional SMR (SMR, Site-Specific)
	GM	800 MHz Conventional SMR (SMR, Site-specific)
	GR	SMR, 896-901/935-940 MHz, Conventional
	GS	Private Carrier Paging, 929-930 MHz
	GX	SMR, 806-821/851-866 MHz, Conventional
	IK	Industrial/Business Pool - Commercial, Conventional
	LN	902-928 MHz Location Narrowband (Non-multilateration)
	LW	902-928 MHz Location Wideband (Grandfathered AVM)
	NC	Nationwide Commercial 5 Channel, 220 MHz
	QD	Non-Nationwide Data, 220 MHz
	QO	Non-Nationwide Other, 220 MHz
	QT	Non-Nationwide 5 Channel Trunked, 220 MHz
	YK	Industrial/Business Pool - Commercial, Trunked
	YL	900 MHz Trunked SMR (SMR, Site-Specific)
	YM	800 MHz Trunked SMR (SMR, Site-specific)
	YS	SMR, 896-901/935-940 MHz, Trunked
	YX	SMR, 806-821/851-866 MHz, Trunked
Land Mobile - Broadcast Auxiliary		
	LP	Broadcast Auxiliary Low Power
	LV	Low Power Wireless Assist Video Devices
	RP	Broadcast Auxiliary Remote Pickup
Maritime Coast & Aviation Ground		
	AA	Aviation Auxiliary Group
	AF	Aeronautical and Fixed
	AR	Aviation Radionavigation
	MA	Marine Auxiliary Group
	MC	Coastal Group
	MK	Alaska Group
	MR	Marine Radiolocation Land
Market Based Services		
	AW	AWS, 1710-1755/2110-2155 MHz bands
	BA	1390-1392 MHz Band, Market Area
	BB	1392-1395 and 1432-1435 MHz Bands, Market Area
	BC	1670-1675 MHz Band, Market Area
	CJ	Commercial Aviation Air-Ground Radiotelephone (800 MHz band)
	CN	PCS Narrowband
	CP	Part 22 VHF/UHF Paging (excluding 931MHz)
	CW	PCS Broadband
	CX	Cellular, Auctioned
	CY	1910-1915/1990-1995 MHz Bands, Market Area
	CZ	Part 22 931 MHz Paging
	DV	Multichannel Video Distribution AND Data Service
	GC	929-931 MHz Band, Auctioned

Download File	Radio Service	Radio Service Description
	GW	General Wireless Communications Service
	LD	Local Multipoint Distribution Service
	LS	Location and Monitoring Service, Multilateration (LMS)
	MS	Multiple Address Service, Auctioned
	PC	Public Coast Stations, Auctioned
	QA	220-222 MHz Band, Auctioned
	TN	39 Ghz, Auctioned
	TZ	24 GHz Service
	WP	700 MHz Upper Band (Block D)
	WS	Wireless Communications Service
	WU	700 MHz Upper Band (Block C)
	WX	700 MHz Guard Band
	WY	700 MHz Lower Band (Blocks A, B, E)
	WZ	700 MHz Lower Band (Blocks C, D)
	YC	SMR, 806-821/851-866 MHz, Auctioned
	YD	SMR, 896-901/935-940 MHz, Auctioned
	YH	SMR, 806-821/851-866 MHz, Auctioned (Rebanded YC license)
	ZV	218-219 MHz Service
Microwave - 47 CFR Parts 74 and 101, and 3650 – 3700 MHz		
	AB	Aural Microwave Booster
	AI	Aural Intercity Relay
	AS	Aural Studio Transmitter Link
	CE	Digital Electronic Message Service - Common Carrier
	CF	Common Carrier Fixed Point to Point Microwave
	CT	Local Television Transmission
	MG	Microwave Industrial/Business Pool
	MM	Millimeter Wave 70/80/90 GHz Service
	MW	Microwave Public Safety Pool
	NN	3650 – 3700 MHz
	PE	Digital Electronic Message Service - Private
	TB	TV Microwave Booster
	TI	TV Intercity Relay
	TP	TV Pickup
	TS	TV Studio Transmitter Link
	TT	TV Translator Relay
	WA	Microwave Aviation
	WM	Microwave Marine
	WR	Microwave Radiolocation
Ownership		
	N/A	
Paging - 47 CFR Part 22		
	CA	Commercial Air-ground Radiotelephone
	CB	BETRS
	CD	Paging and Radiotelephone
	CG	General Aviation Air-ground Radiotelephone
	CO	Offshore Radiotelephone
	CR	Rural Radiotelephone

Download File	Radio Service	Radio Service Description
Ship - 47 CFR Part 80		
	SA	Ship Recreational or Voluntarily Equipped
	SB	Ship Compulsory Equipped
	SE	Ship Exemption
Spectrum Leasing		
	AL	All

Using the Data

Data can be joined whenever the column name is the same in both tables. The primary column for joining license data is the call sign. The primary column for joining application data is ULS file number. In addition to the call sign or ULS file number, each application and license has been assigned a unique, 9-digit system identifier. This system identifier is useful in cases where a call sign has been reassigned, insofar as it allows you to differentiate between the active call sign and the call sign that has expired or been cancelled or terminated. (This situation occurs commonly with Amateur vanity licenses.)

License data for site-based services can be joined by the following combination of columns:

- call_sign
- call_sign and location_number
- call_sign, location_number and antenna_number
- call_sign, location_number, antenna_number and frequency_number
- call_sign, path number, location_number and antenna_number
- call_sign, path_number and segment_number

License data for market-based services can be joined by the following combination of columns:

- call_sign and market code
- call_sign, market_code and market_partition_code
- call_sign, market_code, market_partition_code (MF)/ partition_sequence_number(MP), def_undef_ind
- call_sign, market_code, undefined_partitioned_area (MC)/partition_sequence_number(MP), def_undef_ind

The unique system identifier can be used in place of the call_sign or in conjunction with it.

Application data can be joined using the columns above with uls_file_number replacing call_sign. The unique system identifier can be used in place of the uls_file_number or in conjunction with it.