

## 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), *ssss* 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\_ddefn.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\_ddefn.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\_ddefn.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	
		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	
		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

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
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
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				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

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	App	Lic
LS					O			O	O	O			O				O
LF					O			O	O	O			O				O
BL								R									
AN					O	R		O	R	O	R	O	R	O	R	O	R
RC									O	O							
RZ																	
FR					R	O	R	O	R	O	R	O	R	O	R	O	O
F2									O	O							O
	TP								R	R							
FT																	O
	FS							O	O	O	O		O			O	O
	FF							O	O	O	O		O			O	O
	BF							R			R		R			R	O
	RA							O	O	O	R						
	EM							O	O	O	O	R	O	R	O	R	O
	PC							O	O								
	PA									O	R						
	SG									O	R						
	AT							O		O		O		O		O	
	LA								O		O		O		O		O
	BE																R
	ME																O
	MH																O
	LL							N/A	O	N/A	O	N/A	O	N/A	O	N/A	O
	LC							N/A	O	N/A	O	N/A	O	N/A	O	N/A	O
	L3							N/A	O	N/A	O	N/A	O	N/A	O	N/A	O
	L4							N/A	O	N/A	O	N/A	O	N/A	O	N/A	O
	O2							N/A	N/A	N/A	O	N/A	O	N/A	O	N/A	O
	L5							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
		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
	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	O
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

Tables	Table Contents	LN App	LM App	LT App	LC App	LE App	LU App
CO	FCC comments	O	O	O	O	O	O
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
<b>Aircraft - 47 CFR Part 87</b>		
	AC	Aircraft
<b>Amateur Radio Service</b>		
	HA	Amateur
	HV	Vanity
<b>Antenna Structure Registration</b>		
	N/A	

<b>Download File</b>	<b>Radio Service</b>	<b>Radio Service Description</b>
<b>Airport Facilities – 47 CFR Part 17</b>		
	N/A	
<b>Assignments and Transfers</b>		
	AL	All
<b>BRS &amp; EBS (Formerly known as MDS/ITFS)</b>		
	BR	Multipoint Distribution Service (MDS and MMDS)
	ED	Instructional Television Fixed Service
<b>Cellular – 47 CFR Part 22</b>		
	CL	Cellular
<b>Comm. Radio and Restricted Radiotelephone - FRC</b>		
	CM	Commercial Operator
	RR	Restricted Operator
<b>General Mobile Radio Service (GMRS)</b>		
	ZA	General Mobile Radio (GMRS)
<b>Land Mobile - Private</b>		
	GB	Business, 806-821/851-866 MHz, Conventional
	GE	Public Safety/Special Emergency and Public Safety, National
	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
	LP	Broadcast Auxiliary Low Power
	LV	Low Power Wireless Assist Video Devices
	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)
	RP	Broadcast Auxiliary Remote Pickup
	RS	Land Mobile Radiolocation
	SL	Public Safety 700 MHz Band-State License
	YB	Business, 806-821/851-866 MHz, Trunked
	YE	Public Safety/Special Emergency and Public Safety, National

<b>Download File</b>	<b>Radio Service</b>	<b>Radio Service Description</b>
	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 8
	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
<b>Land Mobile - Commercial</b>		
	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
<b>Land Mobile - Broadcast Auxiliary</b>		
	LP	Broadcast Auxiliary Low Power
	RP	Broadcast Auxiliary Remote Pickup
<b>Maritime Coast &amp; Aviation Ground</b>		
	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
<b>Market Based Services</b>		
	BC	1670-1675 MHz Band, Market Area
	CN	PCS Narrowband

<b>Download File</b>	<b>Radio Service</b>	<b>Radio Service Description</b>
	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
	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
	WS	Wireless Communications Service
	WX	700 MHz Guard Band
	WZ	700 MHz Lower Band
	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
<b>Microwave - 47 CFR Parts 74 and 101, and 3650 – 3700 MHz</b>		
	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
	NN	3650 – 3700 MHz
	MW	Microwave Public Safety Pool
	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
<b>Ownership</b>		
	N/A	

Download File	Radio Service	Radio Service Description
<b>Paging - 47 CFR Part 22</b>		
	CA	Commercial Air-ground Radiotelephone
	CB	BETRS
	CD	Paging and Radiotelephone
	CG	General Aviation Air-ground Radiotelephone
	CO	Offshore Radiotelephone
	CR	Rural Radiotelephone
<b>Ship - 47 CFR Part 80</b>		
	SA	Ship Recreational or Voluntarily Equipped
	SB	Ship Compulsory Equipped
	SE	Ship Exemption
<b>Spectrum Leasing</b>		
	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 and undefined\_partitioned\_area

call\_sign, market\_code, market\_partition\_code and defined\_partition\_code

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.