

Office of Engineering and Technology's

# Master Frequency File Data Base System

2000.11.26

## 1.0 Introduction:

*Master Frequency File Data Base System* is a relational data base which can accommodate the technical and administrative information in the various Commission licensing systems in a manor and format that permits conducting spectrum utilizations studies to be conducted in an effective manor.

## 1.x MFFDBS Table Structure:

The following tables, numbers X through Y, describe the structure of the various tables contain in the *Master Frequency File Data Base System*.

Figure 1 depicts the relationship between the several tables.

### Freq Table

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Field Name	Units	Field Type & Size	Description		Comments
FreqKey		char(10)			
CsFnKey		char(15)	Call Sign or File Number		
PathSiteKey		char(20)			

Field Name	Units	Field Type & Size	Description		Comments
PathAntKey		char(20)			
LicenseIdKey		char(20)			
FreqC	MHz	double	Carrier Frequency		
FreqL	MHz	char(17)	Carrier Frequency, or Lower Frequency if range		xxxxxxxx.xxxxxxxxx
FreqU	MHz	char(17)	Upper Frequency if range		xxxxxxxx.xxxxxxxxx
ChannelNum		char(5)			
EmissionDesignator1		char(7)	See Section 2.xxxx		
EmissionDesignator2		char(7)			
EmissionDesignator3		char(7)			
EmissionDesignator4		char(7)			
CarsEmissionCode		char(1)			
TxEquipMfg		char(25)			
TxEquipMod		char(25)			
TxFreqTol	%	char(8)	x.xxxxxx (%)		
DigitalRate	kbps	char(6)			xxxxxx ()
DigitalMod		char(6)	Digital Modulation Type		
TxOutputPwr	W	char(6)			xxxx.x
TxLineLoss	dB	char(7)			xxxxx.x
TxAntInputPwr	dBW	char(7)			xxxxx.x

Field Name	Units	Field Type & Size	Description		Comments
TxEirp	dBW	char(6)			xxxx.x
TxErp	dBW	char(3)			xxx
TxAntPlr		char(3)			
RxSigLevel	dbm	char(7)			xxxxx.x
RxLineLoss	dB	char(7)			xxxxx.x
DateApp	yyyymm dd	char(8)			yyyymmdd
DateFirstUse	yyyymm dd	char(8)			yyyymmdd
DateIssue	yyyymm dd	char(8)			yyyymmdd
DateExpire	yyyymm dd	char(8)			yyyymmdd
AppFileNum		char(20)			
LastEffDate	yyyymm dd	char(8)			yyyymmdd
LastConDate	yyyymm dd	char(8)			yyyymmdd
FccRadSvc		char(2)	xx, See Table __ below		
FccDbSys		char(3)			
RulePartElig		char(6)			

Field Name	Units	Field Type & Size	Description		Comments
StatusCode		char(1)	Status of assignment		0 = unknown 1 = no longer licensed 5 = application pending 9 = granted/licensed
CntMobileUnits		integer			
CntMobilePagers		integer			

### Lice Table

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Field Name	Units	Field Type & Size	Description		Comments
LicenseIdKey		char(20)			
FccRegNum		Long			
LiceTin		char(10)			
LiceName		char(80)			
LiceDBA		char(40)			
LiceStreet2		char(40)			
LiceStreet1		char(60)			
LicePOB		char(40)			
LiceCity		char(20)			
LiceState		char(2)			
LiceZipCode		char(10)			

Field Name	Units	Field Type & Size	Description		Comments
LiceCountry		char(5)			
LicePhone		char(14)			
LiceFax		char(14)			
LiceEmail		char(50)			
LiceAttn		char(35)			
LiceType		char(1)			
EntityType		char(2)			

### SiteTx Table

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Field Name	Units	Field Type & Size	Description		Comments
PathSiteKey		char(20)			
LocationKey		char(20)			
TxCall		char(15)			
FacIdNum		long			
TowerReg		char(10)	Tower registration number		Old "Tower" registration ID numbers are six digits or less. New "Antenna Registration" numbers are seven digits with position 7 being equal to a "1"

Field Name	Units	Field Type & Size	Description		Comments
TxStructureType		char(6)			
TxClassStation		char(4)	Class of Station, see Table _____ for codes		
TxName		char(20)			
TxStreet		char(80)			
TxCity		char(20)			
TxCounty		char(30)			
TxState		char(2)			
TxCountry		char(5)			
TxLatDMS		char(10)			DDMMSS.Sx
TxLatSec	sec	char(10)			xxxxxxxx.x
TxLonDMS	DMS	char(10)			DDDMMSS.Sx
TxLonSec	sec	char(10)			xxxxxxxx.x
TxLatDMSHi		char(10)	If box area, upper latitude		DDMMSS.Sx
TxLatSecHi		char(10)			xxxxxxxx.x
TxLonDMSHi		char(10)	If box area, left longitude		DDDMMSS.Sx
TxLonSecHi		char(10)			xxxxxxxx.x
TxHorixDatum		char(3)	Horizontal Datum: North American Datum (NAD)27 / 83 – N27 or N83		
TxNepa		char(1)			

Field Name	Units	Field Type & Size	Description		Comments
RadOfOp	xxxxxx km	char(6)	If circle area, radius		xxx (km)
TxGrEl	xxxx.x meters	char(6)	Ground elevation AMSL		xxxxxx
TxHgtStructure	xxxx.x meters	char(6)	Height of antenna support structure		xxxx.x
TxHgtToTip	xxxx.x meters	char(6)	Overall height of antenna structure		xxxxxx
UnitsHandHeld		integer			
UnitsMobile		integer			
UnitsTempFixed		integer			
UnitsAircraft		integer			
UnitsItinerant		integer			

### SiteTxCoord Table

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Field Name	Units	Field Type & Size	Description		Notes
PathAntKey		char(20)			
LocatonKey		char(20)			
TxCall		char(10)			
TxAzimuthEast		char(6)			

TxAzimuthWest		char(6)			
TxElevationEast		char(6)			
TxElevationWest		char(6)			
TxFreqLimitLow		char(17)			
TxFreqLimitHigh		char(17)			
TxHorizMaxDenity		char(6)			
TxSatArcEast		char(1)			
TxSatArcWest		char(1)			
TxSatHemiEast		char(1)			
TxSatHemiWest		char(			
TxSatOrbitType		char(			

### AntTx Table

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Field Name	Units	Field Type & Size	Description		Notes
PathAntKey		char(20)			
AntennaKey		char(20)			
LocationKey		char(20)			
TxCall		char(15)			
TxAntHgt	xxxx.x meters	char(6)	Height to center of final radiating element AGL		xxxxxx



Field Name	Units	Field Type & Size	Description		Notes
TxAntPlr		char(3)			
TxAntAzi	xxx.x deg	char(6)			xxx.x (degrees true north lockwise)
TxAntTlt	xxx.x deg	char(6)			xxx.x (deg)
TxAntMfg		char(25)			
TxAntMod		char(25)			
TxAntRPE		char(25)			
TxAntGn	xxx.x dBi	char(6)	Antenna gain		xxx.x
TxAntBw	xxx.x deg	char(6)	Antenna ½ pwr beamwidth		xxx.x
TxAntSize	xxx.x meters	char(6)			
TxDivHgt	xxxx.x meters	char(6)	Diversity antenna height above ground.		xxxx.x (m)
TxDivMfg		char(25)			
TxDivMod		char(25)			
TxDivRPE		char(25)			
TxDivGn	xxx.x deg	char(6)			xxx.x (dB)
TxDivBw	xxx.x deg	char(6)			xxx.x (deg)

Field Name	Units	Field Type & Size	Description		Notes
TxRefTlt	xxx.x deg	char(6)	Reflector antenna tilt		xxx.x (deg)
TxRefSep	xxx.x meters	char(6)			xxx.x (m)
TxRefW	xxx.x meters	char(6)			xxx.x (m)
TxRefH	xxx.x meters	char(6)			xxx.x (m)

### AntPr1 Table

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Field Name	Units	Field Type & Size	Description		Notes
PathAntKey		char(20)			
AntennaKey		char(20)			
LocationKey		char(20)			
Pr1AntHgt	xxxx.x meters	char(6)	Height to center of final radiating element AGL		xxxxxx
Pr1AntPlr		char(3)			
Pr1AntAzi	xxx.x deg	char(6)			xxx.x (degrees true north lockwise)
Pr1AntTlt	xxx.x deg	char(6)			xxx.x (deg)

Field Name	Units	Field Type & Size	Description		Notes
Pr1AntMfg		char(25)			
Pr1AntMod		char(25)			
Pr1AntRPE		char(25)			
Pr1BackToBackTxDishGain	xxx.x dBi	char(6)	Antenna gain		xxx.x
Pr1BackToBackRxDishGain	xxx.x dBi	char(6)	Antenna gain		xxx.x
Pr1AntH		char(6)			
Pr1AntW		char(6)			

### AntRx Table

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Field Name	Units	Field Type & Size	Description		Notes
PathAntKey		char(20)			
AntennaKey		char(20)			
LocationKey		char(20)			
RxCall		char(15)			
RxAntHgt	xxxx.x meters	char(6)	Height to center of final radiating element AGL		xxxxxx
RxAntPlr		char(3)			

Field Name	Units	Field Type & Size	Description		Notes
RxAntAzi	xxx.x deg	char(6)			xxx.x (degrees true north lockwise)
RxAntTlt	xxx.x deg	char(6)			xxx.x (deg)
RxAntMfg		char(25)			
RxAntMod		char(25)			
RxAntRPE		char(25)			
RxAntGn	xxx.x dBi	char(6)	Antenna gain		xxx.x
RxAntBw	xxx.x deg	char(6)	Antenna ½ pwr beamwidth		xxx.x
RxAntSize	xxx.x meters	char(6)			
RxDivHgt	xxxx.x meters	char(6)	Diversity antenna height above ground.		xxxx.x (m)
RxDivMfg		char(25)			
RxDivMod		char(25)			
RxDivRPE		char(25)			
RxDivGn	xxx.x deg	char(6)			xxx.x (dB)
RxDivBw	xxx.x deg	char(6)			xxx.x (deg)

Field Name	Units	Field Type & Size	Description		Notes
RxRefTlt	xxx.x deg	char(6)	Reflector antenna tilt		xxx.x (deg)
RxRefSep	xxx.x meters	char(6)			xxx.x (m)
RxRefW	xxx.x meters	char(6)			xxx.x (m)
RxRefH	xxx.x meters	char(6)			xxx.x (m)

### SitePr1 Table

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Field Name	Units	Field Type & Size	Description		Comments
PathSiteKey		char(20)			
LocationKey		char(20)			
TowerReg		char(10)			
Pr1StructureType		6			
Pr1Name		char(20)			
Pr1Street		char(80)			
Pr1City		char(20)			
Pr1County		char(30)			

Field Name	Units	Field Type & Size	Description		Comments
Pr1State		char(2)			
Pr1Country		char(5)			
Pr1LatDMS	ddmms. sh	char(10)			
Pr1LatSec	xxxxxxx. xx sec	char(10)			
Pr1LonDMS	dddmmss. s.sh	char(10)			
Pr1LonSec	xxxxxxx. xx sec	char(10)			
Pr1HorizDatum		char(5)			
Pr1GrEl	xxxx.x meters	char(6)			
Pr1HgtStructure	xxxx.x meters	char(6)			
Pr1HgtToTip	xxxx.x meters	char(6)			

#### SitePr2 Table

Same as "SitePr1"

#### SitePr3 Table

Same as "SitePr1"

#### SitePr4 Table

Same as "SitePr1"

#### SiteRx Table

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Field Name	Units	Field Type & Size	Description		Comments
PathSiteKey		char(20)			
LocationKey		char(20)			
RxCall		char(15)			
FacIdNum		long			
TowerReg		char(10)			
RxStructureType		6			
RxClassStation		char(4)			
RxName		char(20)			
RxStreet		char(80)			
RxCity		char(20)			
RxCounty		char(30)			
RxState		char(2)			
RxCountry		char(5)			

Field Name	Units	Field Type & Size	Description		Comments
RxLatDMS	ddmmss. sh	char(10)			ddmmss.sx
RxLatSec	xxxxxxx x.x sec	char(10)			xxxxxxx.x (sec)
RxLonDMS	dddmmss s.sh	char(10)			dddmmss.sx
RxLonSec	xxxxxxx x.x sec	char(10)			xxxxxxx.x (sec)
RxLatDMSHi		char(10)	If box area, upper latitude		DDMMSS.Sx
RxLatSecHi		char(10)			xxxxxxx.x
RxLonDMSHi		char(10)	If box area, left longitude		DDDMMSS.Sx
RxLonSecHi		char(10)			xxxxxxx.x
RxHorizDatum		char(5)			
RxGrEl	xxxx.x meters	char(6)			xxxxxx (ft)
RxNepa		1			
RxGrElM		char(6)			xxxx.x (m)
RxHgtStructure	xxxx.x meters	char(6)			
RxHgtToTip	xxxx.x meters	char(6)			
UnitsHandHeld		integer			



Field Name	Units	Field Type & Size	Description		Comments
UnitsMobile		integer			
UnitsTempFixed		integer			
UnitsAircraft		integer			
UnitsItinerant		integer			

**SiteRxCoord Table**

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Field Name	Units	Field Type & Size	Description		Notes
PathAntKey		char(20)			
LocationKey		char(20)			
RxCall		char(15)			
AzimuthEast		char(6)			
AzimuthWest		char(6)			
ElevationEast		char(6)			
ElevationWest		char(6)			
FreqLimitLow		char(17)			
FreqLimitHigh		char(17)			
HorizMaxDenity		char(6)			
SatArcEast		char(1)			

SatArcWest		char(1)			
SatHemiEast		char(1)			
SatHemiWest		char(			
SatOrbitType		char(			

**SpcCnd Ant Table**

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Field Name	Units	Field Type & Size	Description		Comments
PathAntKey		char(20)			
SpecCond		Memo			

**SpcCnd Freq Table**

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Field Name	Units	Field Type & Size	Description		
FreqKey		char(15)			
SpecCond		memo			

**SpcCnd Lice Table**

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Field Name	Units	Field Type & Size	Description		
CsFnKey		char(15)			

SpecCond		memo			
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**SpcCnd Site Table**

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Field Name	Units	Field Type & Size	Description		
PathSiteKey		char(15)			
SpecCond		memo			

**SpcCnd Table**

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Field Name	Units	Field Type & Size	Description		
CsFnKey		char(15)			
SpecCond		memo			

**MmbParent Table**

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Field Name	Units	Field Type & Size	Description		Comments
CsFnKey		char(15)			
ParentFacIdNum		long	Facility Identification Number – assigned by Mass Media Bureau		
ParentCallSign		char(15)			

Field Name	Units	Field Type & Size	Description		Comments
ParentRadSvc		char(2)			
ParentState		char(2)			
ParentCity		char(20)			
ParentLatDMS	ddmmss. sh	char(10)			ddmmss.sx
ParentLatSec	xxxxxxx x.x sec	char(10)			xxxxxxx.x (sec)
ParentLonDMS	dddmmss s.sh	char(10)			dddmmss.sx
ParentLonSec	xxxxxxx x.x sec	char(10)			xxxxxxx.x (sec)

This table is used to associate broadcast auxiliary stations licensed under Rule Part 74 with their parent AM, FM, TV, LPTV, translator facility licensed under Rule Part 73.

### DataSource

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Field Name	Units	Field Type & Size	Description		Notes
ExportDatabase		char(10)			
ExportDate		char(10)			
ExportTime		char(20)			

**SiteMk Table**

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Field Name	Units	Field Type & Size	Description		Notes
PathSiteKey		20			
LocationKey		20			
MkCall		15			
FacIdNum		long			
MkTypeCode		integer			
MarketCode		10			
MarketDesc		30			
MarketType		5			
MkName		20			
MkStreet		80			
MkCity		20			
MkCounty		30			
MkState		2			
MkCountry		5			
MkLatDMS		10			dddmmss.sX
MkLatSec		10			
MkLonDMS		10			dddmmss.sX
MkLonSec		10			

<b>Field Name</b>	<b>Units</b>	<b>Field Type &amp; Size</b>	<b>Description</b>		<b>Notes</b>
MkLatDMSHi		10			
MkLatSecHi		10			
MkLonDMSHi		10			
MkLonSecHi		10			
MkHorizDatum		6			
MkRadius		6			

<b>Field Name</b>	<b>Units</b>	<b>Field Type &amp; Size</b>	<b>Description</b>		<b>Notes</b>

