Martin Harms

From: donotreply_from_webfcr@faa.gov
Sent: Wednesday, October 7, 2020 11:08 AM
To: Martin Harms
Cc: Timothy Bogan; Lorena Carvajal; Rod Murphy; Surya CTR Kanchiraju; Clifford CTR Vines; Patrick CTR Bledzki
Subject: FAA Concurrence of Record TRK 200893, Project: NFEMH09/30/2020(1)
Attachments: TRK 200893_NG T200869_Card3_Approved.txt; NTIA-Card3-Descriptions.pdf

Dear Martin Harms,

The FAA Spectrum Engineering Services has completed the review of your Frequency Coordination Request.

TRK 200893 is assigned an FAA Coordination number NG T200869 that indicates FAA's coordination that may or may not include operational limits/conditions as part of the requirement for FAA concurrence. The FAA Spectrum Engineering Services has provided the following comments:

COMMENTS: NONE

Please note that this concurrence does not constitute authority to transmit. Your authority to transmit must be obtained from the FCC.

Please provide this concurrence notice to the FCC as part of your frequency application, to demonstrate completion of the FAA coordination process. The FAA Coordination number is only valid until 4/5/2021; if you need an extension, please submit an inquiry via WebFCR .

The attached file contains a Card 3 format with all technical and operational parameters; operations are required to be contained within these parameters for the FAA's concurrence to remain valid. If any of these parameters change, the license to transmit shall be re-coordinated with the FAA and updated with the FCC. A document that explains each field of the Card 3 format in plain text is attached.

The following Revision Table outlines key parameters of this coordination:

Attribute	Record Parameter
Serial Number	NG T200869
Frequency	M1370.0000
Upper Frequency	M1390.0000
City	BALTIC
State	SD
Transmitter Radius	0120
Transmitter Latitude	434203.00N
Transmitter Longitude	0964227.00W
Antenna Height	0006
Receiver Latitude	434203.00N

Receiver Longitude	0964227.00W
Equipment Type	C,PSY MPU5
Antenna Type	PARABOLIC

Best regards,

FAA Spectrum Engineering Services

The NTIA Manual of Regulations and Procedures for Federal Radio Frequency Management

APPLICATION Format (Card-3)

This document outlines a **small subset of the formatting rules** for the NTIA Card3 format that is defined in Chapter 9 Section 9.7.1 and the following sections which must be strictly adhered to.

Please refer to the NTIA Manual as noted for additional formatting information or for any parameter that is not listed in this brief summary below. The NTIA Manual URL: https://www.ntia.doc.gov/page/2011/manual-regulations-and-procedures-federal-radio-frequency-management-redbook

The COMMAND ENTRY. (Primary focus of intent for the operation being attempted)

The COMMAND ENTRY must always be the first entry. This entry consists of

the application processing COMMAND and the RECORD IDENTIFIER (Agency Serial Number (SER)).

(1) The COMMAND is designated with one of three coded entries:

(a) **$$ADD**--for NEW and NOTIFICATION actions; or

(b) **$$CHG**--for MODIFICATION, RENEWAL, and DELETION actions.

(c) **$$MOD**--for use only with MODIFICATION actions in accordance with NTIS Specifications.

(2) The RECORD IDENTIFIER is ALWAYS the Agency based Serial Number (SER) of the frequency assignment record.

(a) If $$ADD is used, the Agency Serial Number MUST be unique and MUST NOT already be recorded in the Government Master File (GMF).

(b) If $$CHG or $$MOD is used, the Agency Serial Number MUST be one which is recorded in the

GMF.

Example: $$ADD NG 181234

SER--Applicant Serial Number (10 Characters-1 Occurrence)

This field is for the applicant's Serial Number (SER) of the application.

The Serial Number must ALWAYS be present and related to Agency of Non-Government entities.

Example: NG 200001

TYP--Type of Action (1 Character--1 Occurrence)

a. NEW (N)--To apply for a new frequency assignment,
b. NOTIFICATION (F)--To notify
c. MODIFICATION (M)--To apply for the addition, substitution, or removal of one Parameters
d. RENEWAL (R)--To apply for the extension of the period.
e. DELETION (D)--To apply for the cancellation of a frequency assignment.

Example: TYP01 M

DAT--Date (6 Characters--1 Occurrence)

The date in year, month, and day order on which the application is prepared. Numeric characters only and no blanks.

Example: DAT01 200225

FRQ--Frequency (13 Characters--1 Occurrence)

First character enter one of the below codes to designate the category frequency:

K--for kilohertz

M--for Megahertz

G--for Gigahertz

Example: FRQ M2870.10

PWR--Power (12 Characters--20 Occurrences)

This field is for the transmitter output power normally supplied to the antenna transmission line

First character enter the unit of power as:

W-- for Watt

K -- for Kilowatt

M -- for Megawatt

Example: PWR K2.5 -- for 2 1/2 kilowatts

XSC--Transmitter State/Country (4 Characters--1 Occurrence)

Using one of the geographical abbreviations (State, Country, or Area)

Example: XSC01 CO -- for Colorado

XAL--Transmitter Antenna Location (24 Characters--1 Occurrence)

This field is for the name of the city or other geographical subdivision.

Example: XAL DALLAS

XLA--Transmitter Antenna Latitude (7 Characters 1 Occurrence)

Two characters each for the degrees, minutes, and seconds of the latitude of the site named XAL.

Coordinates referenced to the World Geodetic System Code 84/North American Datum 83

Example: XLA01 385351N

XLG--Transmitter Antenna Longitude (8 Characters--1 Occurrence)

Listed in degrees (3 characters), minutes (2 characters) and seconds (2 characters), the longitude of the site named in XAL. Coordinates referenced to the World Geodetic System Code 84/North American Datum 83.

Example: XLG01 0770133W

SUP—Supplemental Details (72 Characters - 15 Occurrences)

The is used primarily to record additional information and related frequency assignment comments that impact on the application and may assist in the engineering and analysis processes, including related usage factors.

XAD--Transmitter Antenna Dimensions (24 Characters--1 Occurrence)

This is a formatted parameter with Antenna Gain, Antenna Name, Antenna Elevation and Antenna Height.

(a) GAIN--The first two characters are a two-digit number representing the nominal gain of the antenna in decibels.

*Note the letter G in the third space.

(b) ANTENNA NAME--Starting with the fourth character, to and including the 13th character is an abbreviation from the list of approved antenna names.

(c) ELEVATION--Starting with the 14th character, to and including the 18th character is a five-digit number representing the site (terrain) elevation in meters above mean sea level (MSL).

*Note the letter H in the 19th space

(d) HEIGHT--Starting with the 20th character, begins a four-digit number representing the antenna height in meters above terrain. All four spaces are used, inserting leading zeros as applicable.

*Note the letter T in the 24th space, which is the end of the parameter.

Example: XAD01 10GCRNRRFLCTR06550H0175T

RLA--Receiver Antenna Latitude (7 Characters--30 Occurrences)

Two characters each for the degrees, minutes, and seconds of the latitude of the receiver.

Coordinates referenced to the World Geodetic System Code 84/North American Datum 83

Example: RLA01 385351N

RLG--Receiver Antenna Longitude (8 Characters--30 Occurrences)

Position in degrees (3 characters), minutes (2 characters) and seconds (2 characters), the longitude of the receiver site. Coordinates referenced to the World Geodetic System Code 84/North American Datum 83.

Example: RLG01 0770133W

CLA--Classification (1 Character--1 Occurrence)

This field is for the security classification of the assignment as determined in accordance with Executive

Order 13526. Only one of the following codes in this field: (1) U--Unclassified (2) C--Confidential

Circuit Remarks (REM) (40 Characters-30 Occurrences)

The CIRCUIT REMARKS field is used primarily to record frequency assignment characteristics that have no specific fields provided for them on the application.

Common Fields in Non-Federal assignments are:

*RAD *AGN *EQT *EQR *EQS *EBW *PRR *POC

Authorized Area of Operation (*RAD)

Enter a radius of operation from a given geographical location for mobile stations, transportable stations.

Agency Data (*AGN)

This CIRCUIT REMARKS field may be used to record agency data that are pertinent to the proposed assignment but not intended to be a part of the authority requested.

Equipment Characteristics (*EQR, *EQS, *EQT)

(1) All applications for new stations above 29.89 MHz shall contain the indicated data on equipment nomenclature where applicable.

Pulse Repetition Rate (*PRR)

On an application for assignment to a station using a secondary radar on the frequency 1030 MHz or for pulsed radars

Point of Contact (POC)

This field is required on all radio spectrum applications for use in United States and its possessions. This entry identifies the person and associated contact information that validated the assignment data is correct.

The field code REMnn is followed by a space, then the code *POC followed by a comma. Then, the name of the individual (not to exceed 17 characters), with comma, and next the phone number of the person above using 10 characters, then comma. After this comma, the date when the data on the assignment was validated in 6 characters using the year, month, and day, type format.

Example: REM05 *POC,JOHN SMITH,7037801234,110627

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$$ADD NG T200869
TYP01 N
DAT01 201007
CLA01 U
FRQ01 M1370.0000
EXD01 201231
STC01 XD
EMS01 5M00F7D
PWR01 W10.00000
XSC01 SD
XAL01 BALTIC
XLA01 434203N
XLG01 0964227W
XAD01 24GPARABOLIC 00461H0002T
XAP01 X
XAZ01 010
XRC01 2020XXXX
RSC01 SD
RAL01 BALTIC
RLA01 434203N
RLG01 0964227W
RAD01 24GPARABOLIC 00460H0002T
RAP01 X
RAZ01 010
BUR01 FCC
TME01 3
BIN01 -
REM01 *FRB,M01370.000000,M01390.000000
REM02 *RAD,0222,0120NM,B
REM03 *FLN,XXXX
REM04 *EQT,C,PSY MPU5
REM05 *EQR,C,PSY MPU5
REM06 *NTS,M018,FAA ,201007,TBOGAN,NG T200869
NTS01 C089
SUP01 PURPOSE OF THE REQUEST:=THE PURPOSE OF THE OPERATION IS TO CONDUCT HIGH-
SUP02 ALTITUDE BALLOON TESTING USING MOBILE NETWORKED MIMO (MN_MIMO) RADIOS IN
SUP03  THE BALTIC, SD AREA.;ADDITIONAL COMMENTS:=THE GROUND STATION IS A TEMPO
SUP04 RARY MOBILE PLATFORM IN THE ONLY FOR THE DURATION OF EACH BALLOON FLIGHT
SUP05  AND WILL BE USED FOR COMMAND/CONTROL COMMUNICATIONS WITH THE BALLOON AN
SUP06 D ALSO TO DOWN-LINK FROM THE FLIGHT CONTROL UNIT ON THE BALLOON SYSTEM;;
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