

## Radio Frequency Authorization

This Authorization is granted pursuant to Chapter 1 Part 1.1 Section 6.i of the NTIA Manual by authority of the US National Science Foundation.

**This Authorization expires on: April 1, 2018. For continued use of this equipment, YOU MUST SUBMIT a request to your Frequency Manager by January 01, 2018.**

Serial Number	FOI	MSD	BUR	NET	RVD	AUS	EXD	
NSF 130009			NAIC		130402	J0906223	180401	
FRQ	BIN	TME	SPD	STC	Bandwidth	Emission	Power	
3175 kHz				XR	100.00 Hz	N0N	600 kW	
				XR	50.00 kHz	P0N	600 kW	
XAL, XSC				XRC	XLA, XLG	XCL	XAP	XAZ
ARECIBO, PR					182037N0664511W			
XAD								
21G								
RAL, RSC				RRC	RLA, RLG	ACL	RAP	RAZ
ARECIBO, PR				I,NTIA-U	182037N0664511W			
RAD				Remarks				
21G				*EQT,C,CCP OT139FPS118				
				*POC,ANGEL VAZQUEZ,7878782612,130318				
				*EQR,U,NSF CUSTOM				

### Restrictions (NTS, \*NTS, SUP)

Supplementary Details - EXPERIMENTAL HF IONOSPHERIC HEATING FACILITY USED FOR THE STUDY OF PLASMA PHYSICS IN THE EARTHS IONOSPHERE. EXPERIMENTS ARE CONDUCTED INFREQUENTLY, USUALLY A FEW TIMES PER YEAR. CHANNEL WILL BE MONITORED BEFORE TRANSMITTING TO AVOID INTERFERENCE. ANTENNA IS A 305 M DISH THAT POINTS STRAIGHT UP AT ALL TIMES. ANTENNA BEAMWIDTH LESS THAN 15 DEG. EXPERIMENTS SUPPORT IMPROVEMENTS IN SCIENCE OF RADIO PROPAGATION.

### SPECIAL HANDLING INSTRUCTIONS

None.

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Serial Number	FOI	MSD	BUR	NET	RVD	AUS	EXD	
NSF 130008			NAIC		130418	J0906236	180401	
FRQ	BIN	TME	SPD	STC	Bandwidth	Emission	Power	
5100 kHz				XR	100.00 Hz	N0N	600 kW	
				XR	50.00 kHz	P0N	600 kW	
XAL, XSC				XRC	XLA, XLG	XCL	XAP	XAZ
ARECIBO, PR					182037N0664511W			
XAD								
23G								
RAL, RSC				RRC	RLA, RLG	ACL	RAP	RAZ
ARECIBO, PR				I,NTIA-U	182037N0664511W			
RAD	Remarks							
23G	*EQT,C,CCP OT139FPS118							
	*POC,ANGEL VAZQUEZ,7878782612,130318							
	*EQR,U,NSF CUSTOM							

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S070 - SUBJECT TO IMMEDIATE CANCELLATION UPON NOTICE FROM FCC.

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NSF 130007			NAIC		130402	J0906254	180401	
FRQ	BIN	TME	SPD	STC	Bandwidth	Emission	Power	
8175 kHz				XR	100.00 Hz	N0N	600 kW	
				XR	50.00 kHz	P0N	600 kW	
XAL, XSC				XRC	XLA, XLG	XCL	XAP	XAZ
ARECIBO, PR					182037N0664511W			
XAD								
26G								
RAL, RSC				RRC	RLA, RLG	ACL	RAP	RAZ
ARECIBO, PR				I,NTIA-U	182037N0664511W			
RAD	Remarks							
26G	*EQT,C,CCP OT139FPS118							
	*POC,ANGEL VAZQUEZ,7878782612,130318							
	*EQR,U,NSF CUSTOM							

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