

**WZPR(FM) 222A.CP
Minor Modification**

This technical report is submitted for a minor modification to the WZPR(FM).CP 222A at Nags Head, NC, FCC facility I.D. 12158. Changes in the antenna COR AGL and ERP are submitted.

The following exhibits are provided for the form 301 application:

- E-1 WZPR(FM) 222A.CP Mod. Spacing Study
- E-2 HAAT Calculation
- E-3 70 dBu Community Coverage of Nags Head, NC
- E-4 RF Calculation
- E-5 Tower ASR 1267867

WZPR(FM) Modification Analysis:

A spacing study in exhibit E-1 shows WZPR(FM) will be fully spaced at its new site on the existing tower, ASR 1267867, at coordinates:

35 51 54.2N 075 38 58.4W NAD83.

A PSI FML-3B three bay, 1.0 wavelength spaced, nondirectional antenna will be mounted at a COR AGL of 89.0 meters, 90.2 meters AMSL and 90.0 meters HAAT (exhibit E-2). The fully-spaced 70 dBu, 16.2 Km circle covers 100%, and the 70 dBu contour covers 87.3% of the Nags Head, NC community of license boundary (Exhibit E-3).

RF Exposure Calculation:

The RF contribution of the PSI FML-3B three bay, 1.0 wavelength antenna was calculated using the FMModel program (exhibit E-4). The resulting value is $4.67 \mu\text{W}/\text{cm}^2$ at a distance of 40.4 meters from the base of the tower, which is below 5% of the $200 \mu\text{W}/\text{cm}^2$ maximum permissible for general public exposure, allowing exclusion from consideration.

Conclusion:

It is submitted the application for WZPR(FM).CP 222A is in full compliance with the Commission rules and policies.



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E-1 WZPR(FM) 222A.CP Mod. Spacing Study

REFERENCE						DISPLAY DATES
35 51 54.20 N.		CLASS = A				DATA 12-28-25
75 38 58.40 W.		Current-Spacings to 3rd Adj.				SEARCH 12-28-25
----- Channel 222 - 92.3 MHz -----						

Call	Channel	Location		Azi	Dist	FCC	Margin
WZPR	LIC 222C3	Nags Head	NC	128.6	3.19	141.5	-138.3
WZPR	CP 222A	Nags Head	NC	280.4	0.00	114.5	-114.5
WHBT-FM	LIC-Z 221C3	Moyock	NC	329.1	98.83	88.5	10.3
WQSL	CP -N 222C1	Jacksonville	NC	228.2	226.17	199.5	26.7

Reference station has protected zone issue:
All separation margins include rounding

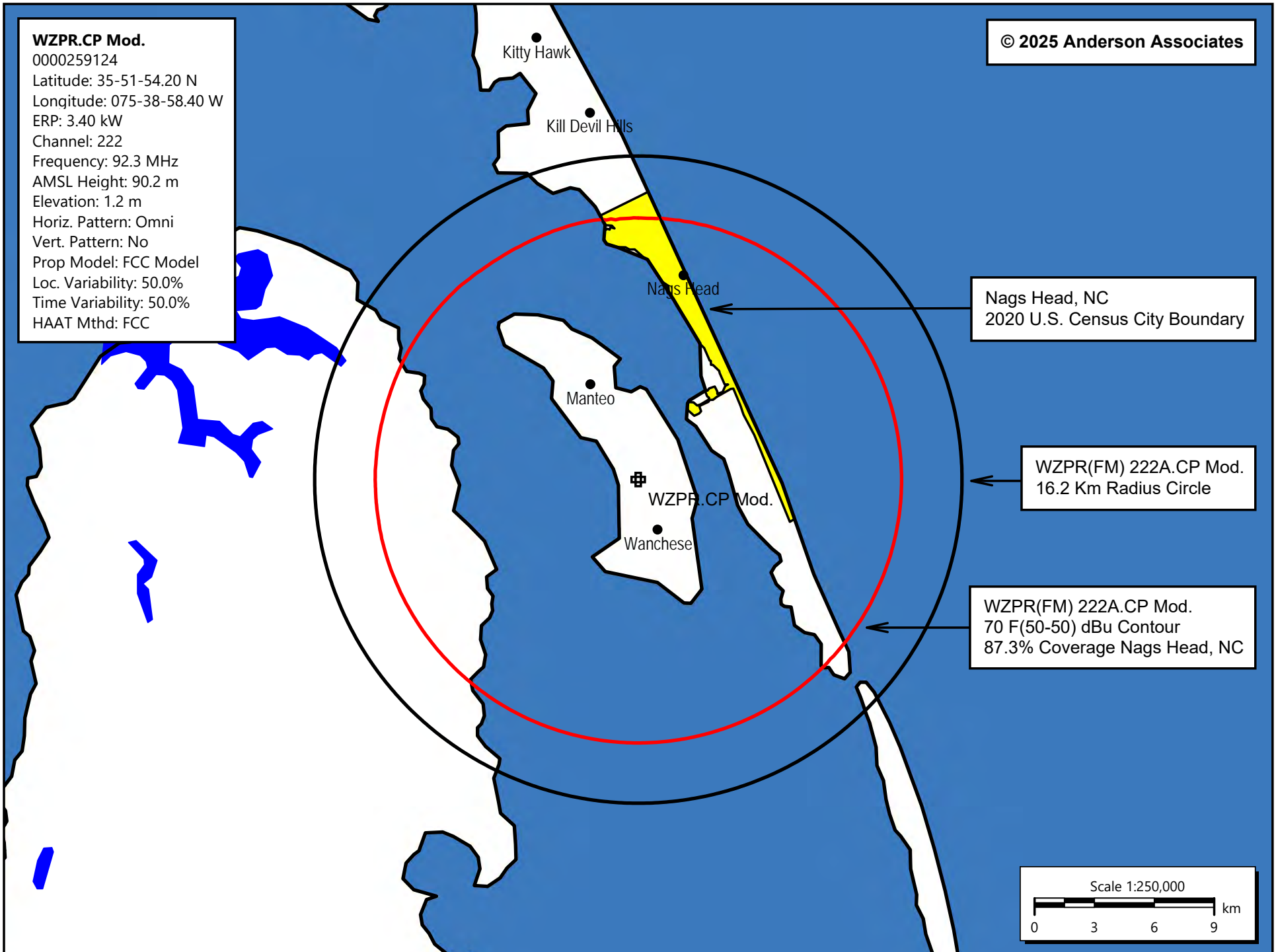
E-2 WZPR(FM) 222A.CP Mod. HAAT

N. Lat. = 355154.2 W. Lng. = 753858.4
HAAT and Distance to Contour,
FCC, FM 2-10 Mi, 51 pts Method - FCC 30 Meter

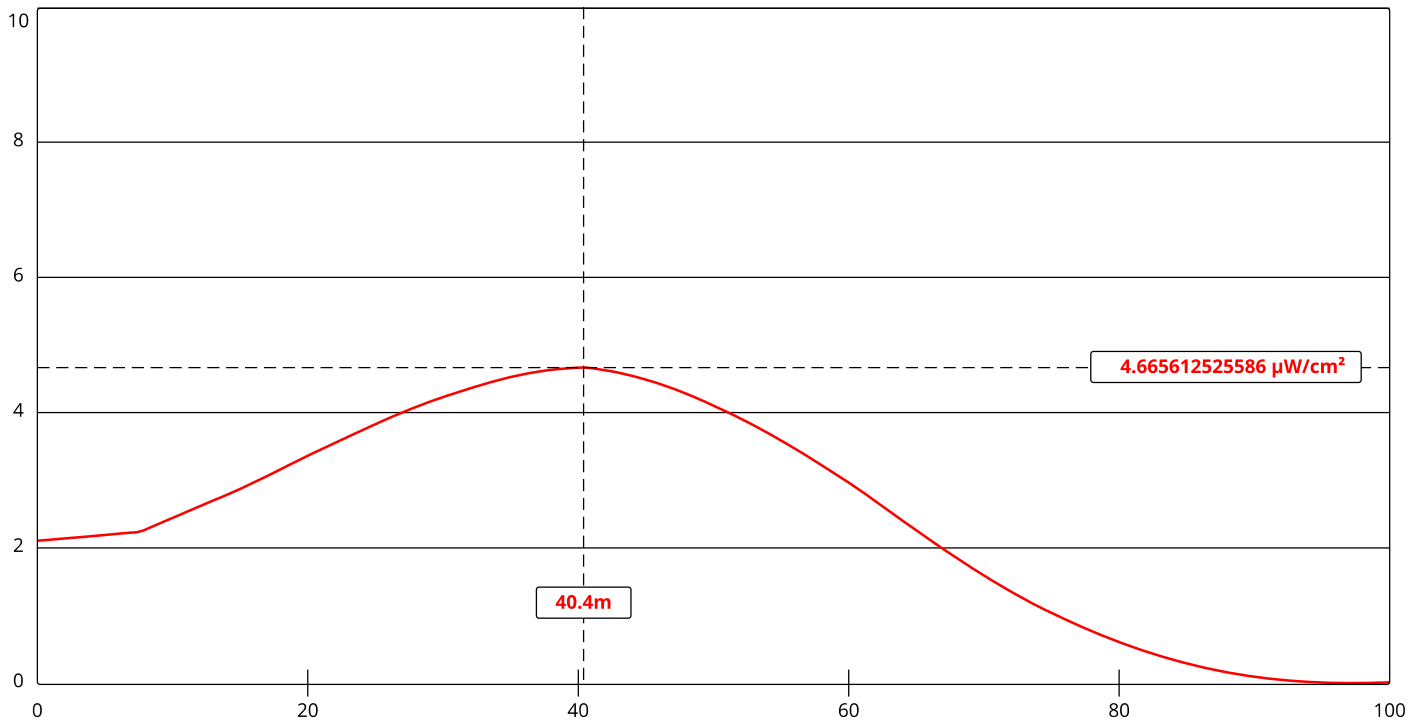
Azi.	AV EL	HAAT	ERP kW	60-F(50-50)
000	1.2	89.0	3.4000	23.57
045	0.1	90.1	3.4000	23.70
090	0.0	90.2	3.4000	23.71
135	0.0	90.2	3.4000	23.71
180	0.0	90.2	3.4000	23.71
225	0.1	90.1	3.4000	23.70
270	0.2	90.0	3.4000	23.70
315	0.1	90.1	3.4000	23.70

Ave El= 0.22 M HAAT= 89.98 M AMSL= 90.2

E-3 WZPR(FM) 222A.CP Mod. 70 dBu Contour Plot



E-4 WZPR(FM) 222A.CP Mod. RF Calculation



Channel Selection	Channel 222 (92.3 MHz)		
Antenna Type +	EPA Type 2: Opposed V Dipole		
Height (m)	89	Distance (m)	100
ERP-H (W)	3400	ERP-V (W)	3400
Num of Elements	3	λ	1
Num of Points	500		

ASR Registration 1267867

Registration Detail

Reg Number	1267867	Status	Constructed
File Number	A0983934	Constructed	10/01/2014
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type G TOWER - Guyed Structure Used for Communication Purposes

Location (in NAD83 Coordinates)

Lat/Long	35-51-54.2 N 075-38-58.4 W	Address	0.25 mile west of RS 345
City, State	Wanchese , NC		
Zip	27954	County	DARE
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
1.2	161.0
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
162.2	160.0

Painting and Lighting Specifications

FAA Chapters 3, 4, 5, 12
Paint and Light in Accordance with FAA Circular Number 70/7460-1K

FAA Notification

FAA Study	2013-ASO-6239-OE	FAA Issue Date	07/26/2013
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Owner & Contact Information

FRN	0003754322	Owner Entity Type	Corporation
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Owner

East Carolina Radio, Inc. Attention To: Rick Loesch P. O. Box 1418 P.O. Box 1418 Nags Head , NC 29759	P: (252)441-1024 F: E: rloesch@ecri.net
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Contact

Graham Brock, Inc. , Marilyn Matheny P.O. Box 24466 St. Simons Island , GA 31522-7466	P: (912)638-8028 F: E: marilyn@grahambrock.com
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Last Action Status

Status	Constructed	Received	11/24/2015
Purpose	Notification	Entered	11/24/2015
Mode	Interactive		