



**SPECTRUM LICENCE**

[ISSUED UNDER PART IV OF THE TELECOMMUNICATIONS ORDINANCE 2014]

**ISSUED TO: PINNACLE BROADCASTING ENTERPRISES LTD.**

**ISSUED ON: APRIL 5, 2018**

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This **Spectrum Licence** ("the Licence") dated **April 5, 2018** is issued by the **Turks and Caicos Islands Telecommunications Commission** ("the Commission") in accordance with Section 35 of the Telecommunications Ordinance 2014 to **Pinnacle Broadcasting Enterprises Limited**, a company duly incorporated in the Turks and Caicos Islands ("the Licensee").

## Interpretation

1. In this Licence unless the context requires otherwise:

"assigned radio spectrum" means the radio frequencies assigned in the Schedule;

"harmful interference" means interference that is or is likely to: (a) cause loss or damage to any person; (b) impair the normal operation of a licensed radiocommunication service or apparatus; (c) corrupt a message conveyed by any such service or apparatus (d) endanger the functioning of a radio navigation service or of other safety services;

"interference" means the prejudicing by emissions or reflections from the Licensee's radiocommunication station or apparatus of any of the forms of electromagnetic energy or the fulfillment of the purposes for which a terrestrial technical system is installed or maintained;

"international standards body" means the International Telecommunication Union (ITU), the International Organization for Standardization (ISO), the International Electrotechnical Committee (IEC), the American Standards Organizations, the European Standards Organization and any other body that may be specified by the Commission to be an international standards body;

"Licensed Service" means the services authorized to be provided under this Licence;

"Ordinance" means the Telecommunications Ordinance 2014 and includes the regulations made under it;

"radiocommunication station" means a site upon which radiocommunication apparatus is deployed, including any vehicle, ship or aircraft;

"Spectrum Plan" means the Turks and Caicos Islands Table of Frequency Allocations published by the Commission under the Ordinance;

"Technical Conditions" means the conditions relating to radiated power limits, technical standards, modulation techniques or other characteristics established by international standards bodies that apply to the use of the assigned radio spectrum.

2. Any word, phrase or expression used in this Licence shall, unless the context requires otherwise, have the same meaning that it has in the Ordinance.

3. Words importing the singular include the plural and vice versa. All references to legislation are deemed to refer to such legislation as amended or re-enacted from time to time.

## Scope of the Licence

4. The Licensee is authorized to use the assigned radio spectrum in accordance with the Spectrum Plan; to install, operate and use the radiocommunications apparatus identified in "Schedule III" for the operation of its Licensed Service. The Licensee may not use the assigned radio spectrum for any other purpose.

5. The Licensee is authorized to use of the radio frequencies in its assigned radio spectrum for the period of validity mentioned in "Schedule II" for each of the radio frequencies.

6. This Licence replaces any spectrum licence that may have been granted to the Licensee by the Commission or any other person in the past.





## **Payment of Licence Fees**

7. The Licensee shall pay to the Commission in respect of the radio frequencies in its assigned radio spectrum the fees that are applicable to those frequencies under the Telecommunications Fee Structure Regulations.

## **Use of Spectrum and Apparatus**

8. The Licensee shall ensure that its use of the assigned radio spectrum or radiocommunication apparatus authorised by this Licence does not cause harmful interference to any other licensed radiocommunication service or radiocommunication apparatus.

9. This licence may be revoked in the event that the Licensee does not commence, use or operate the radiocommunication service or radiocommunication apparatus authorized by this licence within nine (9) months of the effective date.

10. The Licensee shall ensure that its radiocommunication apparatus are adequately protected from interference that may be caused by other radiocommunication stations and apparatus operating in the same geographical area or radio frequency band, or in adjacent geographical areas or frequency bands.

11. The Licensee shall ensure that its use of the assigned radio spectrum, radiocommunication station or radiocommunication apparatus authorised by this Licence does not cause any danger to the public.

12. The Licensee shall ensure that its radiocommunication service and apparatus complies with the Technical Conditions identified in "Schedule I" and other relevant Technical Conditions.

13. The Licensee shall assist the Commission in coordinating and managing the efficient use of radio frequencies with neighbouring countries.

14. The Licensee shall obtain all consents and approvals required under the Turks and Caicos Island laws before the commencement of any installation of its radiocommunication station or apparatus.

15. Where the Licensee's radiocommunication station or apparatus causes the emission of harmful interference or causes any other radiocommunication station or apparatus to emit harmful interference, the Licensee shall take such steps as the Commission may direct to remove the source of such harmful interference and furnish such information as the Commission may request concerning the interference. Before making a direction the Commission may consult the Licensee or any other person that it considers may be affected by the direction.

16. The Licensee shall investigate immediately upon being notified in writing by the Commission any complaint alleging that harmful interference has been, is being or is about to be emitted by its radiocommunication station or apparatus.

17. The Licensee shall ensure that all persons using its radiocommunication apparatus are made aware of the conditions of this Licence and comply with those conditions.

18. The Licensee shall keep accurate, up to date and detailed records of the operation of its radiocommunication apparatus and shall make this information available, promptly and without charge to the Commission.

19. The Licensee shall notify the Commission of any proposed material change to its radiocommunication station or apparatus and shall provide such information as the Commission may require for the purpose of assessing the effect of such change.



20. Upon receiving reasonable prior notice, the Licensee shall allow the Commission to inspect its radiocommunication station or apparatus and shall provide such assistance as the Commission may require verifying that the radiocommunication station or apparatus are in compliance with the conditions of this Licence.

21. The Licensee shall exhibit all notices and instructions given to it by the Commission at its radiocommunication station.

### **Remedies for Non-Compliance**

22. In the event of any failure by the Licensee to comply with the conditions of this Licence the Commission may take such action as it deems appropriate, including suspension and revocation of the Licence, in accordance with the provisions of the Ordinance.

### **Information Requirements**

23. Not later than the end of the period of three months beginning with the day after the end of each financial year, the Licensee shall furnish to the Commission a report of its activities during the past financial year.

24. The Licensee shall furnish to the Commission in such manner and at such times as the Commission may request in writing such information related to the activities of the Licensee under this Licence as the Commission may reasonably require in the performance of its functions.



**SCHEDULE I**

**[Technical Conditions]**

<b>Parameter</b>	<b>Community Requirements</b>
1.1 Maximum Field Strength at 43 km from the Transmitter (E.g. Achieved at ERP = 1 kW, HAAT = 400 m)	70dB $\mu$ V/m
1.2 Maximum Field Strength at perimeter of Licensed Coverage Area	54dB $\mu$ V/m
1.3 Effective Radiated Power (ERP)	$\leq$ 1kW
1.4 Channel Width	200 kHz
1.5 Frequency Deviation	$\leq \pm$ 75kHz
1.6 Carrier Frequency Stability	$\pm$ 5 kHz between 15 and 25°C at rated line power input voltage
1.7 Spurious Emissions <ul style="list-style-type: none"> <li>• Between 120 kHz and 240 kHz from the carrier</li> <li>• Between 240 kHz and 400 kHz from the carrier</li> <li>• More the 400 kHz from the carrier</li> </ul>	$\leq$ - 25dB $\leq$ - 45dB $\leq$ Min $-(43 + 10\log P)$ , -80 dB, where P is the transmitter power in Watts
1.8 Pre-emphasis characteristic time constant	75 $\mu$ secs
1.9 Audio Frequency Response	$\pm$ 3 dB from 100 Hz to 10 kHz using standard 75 $\mu$ secs pre-emphasis
1.10 Audio Frequency Harmonic Distortion	$\pm$ 3 dB from 100 Hz to 10 kHz at a modulation deviation of $\pm$ 35 kHz

*PLEASE BE ADVISED THAT THE ABOVE SCHEDULE IS SUBJECT TO CHANGE*





**SCHEDULE II**  
**[Assigned Radio Spectrum]**

License Services	Assigned Frequency (MHz)	Bandwidth	Type of Service	Coverage Area	Emission Power Level (Watts)	Period of Validity	
						From	To
FM Broadcasting	93.9000 MHz	200 KHz	FM Radio	Providenciales	350	March 22, 2018	March 22, 2033



### SCHEDULE III

#### [Base Station Information]

<b>Station Index</b>	1
<b>Station Location:</b>	Butterfield Tower Leeward Highway, Providenciales
<b>Station Coverage Zone:</b>	Providenciales
<b>Station Administration:</b>	TCI
<b>Sub-Type</b>	Base Station
<b>Station Operation Time: From</b>	00:00
<b>To</b>	24:00
<b>Station Identical licenses:</b>	1
<b>Multi-Station Type:</b>	None
<b>Tolerance:</b>	N/A
<b>Coverage Radius:</b>	N/A
<b>Location Latitude hemisphere</b>	N
<b>Location Longitude hemisphere</b>	W
<b>Location Latitude</b>	<i>N</i> 21° 46' 58"
<b>Location Longitude</b>	<i>W</i> 072° 15' 15"
<b>Natural Modulation</b>	Voice
<b>Operation Type</b>	FM Radio (Commercial)
<b>Maximum Transmit Power</b>	350 Watts
<b>Emission Designator</b>	F3EHN
<b>Bandwidth</b>	200 KHz



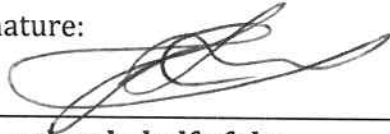
	<b><i>RX Antenna Parameters</i></b>	<b><i>TX Antenna Parameters</i></b>
<b><i>Pattern:</i></b>	Bi	Bi
<b><i>Polarization:</i></b>	Circular	Circular
<b><i>Manufacturer:</i></b>	FMUSER	FMUSER
<b><i>Model No:</i></b>	CP-100	CP-100
<b><i>Azimuth Beam width:</i></b>	N/A	N/A
<b><i>Vertical Beam Width:</i></b>	N/A	N/A
<b><i>Gain:</i></b>	-3 dBd	-3 dBd
<b><i>Above Sea Level:</i></b>	64 ft	64 ft
<b><i>Elevation angle:</i></b>	N/A	N/A
<b><i>Above Ground Height:</i></b>	130 ft	130 ft
<b><i>Azimuth Angle:</i></b>	N/A	N/A

	<b><i>RX Radio Type</i></b>	<b><i>TX Radio Type</i></b>
<b><i>Manufacturer:</i></b>	FMUSER	FMUSER
<b><i>Model Number:</i></b>	FSN-350	FSN-350
<b><i>Minimum Frequency:</i></b>	87.000000 MHz	87.000000 MHz
<b><i>Maximum Frequency:</i></b>	108.000000 MHz	108.000000 MHz
<b><i>Power Output:</i></b>	350 Watts	350 Watts
<b><i>Certification:</i></b>	N/A	N/A

**ATTESTATION CLAUSES**

Name: *Pedro Ariza*

Position: *Chairman*

Signature: 

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**For and on behalf of the  
Turks and Caicos Islands Telecommunications Commission**



Name: *DANIEL MALCOLM JR.*

Position: *OWNER / MANAGER*

Signature: 

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**For and on behalf of Pinnacle Broadcasting Enterprises Limited**