



THIRTEENTH KOSRAE STATE LEGISLATURE
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S.C.R. No. 13-06
 March 9, 2023

RE:

Miscellaneous Concern regarding
 radio broadcast transmittal

Committee on Environment, Transportation,
 Communication and Infrastructure (ETC&I)

CHAIRMAN
 Moses M. Thomson
 VICE CHAIRMAN
 Ruthsina R. Jonah

The Honorable Semeon J. Phillip
 Speaker
 13th Kosrae State Legislature

MEMBERS
 Nena C. Ned
 Bob H. Skilling
 Artson S. Talley
 Andy J. Andrew
 Saipar E. Tilfas

Dear Speaker Phillip:

Your Committee on Environment, Transportation, Communication, and Infrastructure (ETC&I) reports on a miscellaneous concern regarding the radio broadcast transmittal.

COMMITTEE ACTIONS:

Your committee met in an Executive meeting on Wednesday, February 13, 2023 around 1:00 pm and decided to dispose its action on the miscellaneous concern.

COMMITTEE FINDINGS:

The intent of the subject matter is clearly stated above as it concerns mainly about the broadcast transmittal which it cannot reach a larger diameter reception.

The committee discussed on a pending issue regarding the need for Kosrae's Broadcasting Authority itself.

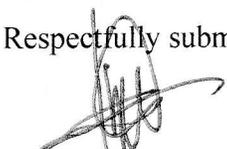
During some time working with KBA's employees, board members, and a consultant, they have found that this Authority needs House Keeping, in need for transmittal equipment for the AM to be revived and operational, and they have need for maintenance of the broadcast's antennae, please refer to attachment.

At the end of the committee meeting, the majority of the members agreed to move this concern forward for the plenary's further deliberation and actions.

RECOMMENDATION:

With the aforementioned findings, Your Committee on Judiciary & Governmental Operations (J&GO) hereby recommends on the plenary's action for adoption of report.

Respectfully submitted,

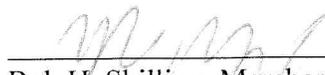


 Moses M. Thomson, Chairman



 Ruthsina R. Jonah, Vice Chairman

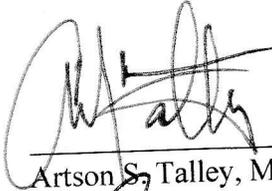
 Nena C. Ned, Member



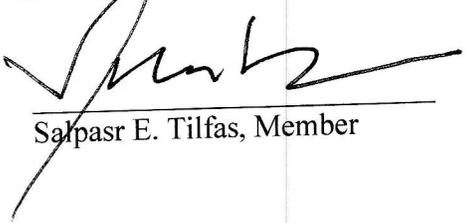
 Bob H. Skilling, Member

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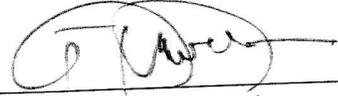
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Artson S. Talley, Member



Salpasr E. Tilfas, Member



Andy J. Andrew, Member

Broadcasting Station Overview

1 message

Savu Koroï <savu_k@yahoo.com>

Sun, Feb 19, 2023 at 5:26 PM

Reply-To: Savu Koroï <savu_k@yahoo.com>

To: "Nena M. William" <kosraedco@gmail.com>, Andy William <andykiaru18@gmail.com>, "edgarlegs@gmail.com" <edgarlegs@gmail.com>, Hans Skilling <hansskilling@gmail.com>, "mostho.tm@gmail.com" <mostho.tm@gmail.com>

Before going in-depth I just want to give you an overview of the Radio Broadcast Equipment needed to start a Radio Station, and in contrast to Kosrae AM and FM V6AJ broadcast - this will allow the technical and management teams to understand what is involved when it comes to managing or maintenance.

By carefully choosing the material and the supplier, you can build a good quality radio station with a limited budget.

The minimum equipment to start on the FM Radio Station Site is:

1. FM Broadcast Transmitter
2. FM Antenna
3. Cable RF to connect the antenna to FM Transmitter
4. RF Connectors

Coverage Distance Is Limited By:

1. **ANTENNA HEIGHT.** The radio horizon is just a little further than the visible horizon, some rule-of-thumb figures are 20 to 30% further than the visible horizon. What this means is if you look out from where your antennas are mounted with good pair of binoculars, wherever you can see, you will broadcast to and about 20 to 30% further.
2. **INTERFERENCE.** Other FM broadcasts on the same frequency from other radio stations cause severe attenuation and blocking of the radio signal. Your antenna can have a perfect 'line of sight' of 20, 30 even 40 miles if you have a large tower, but if there is another signal on the same frequency 40 miles away, the perfect 'line of sight' goes out the window and your signal is weakened and interfered with.
3. **TRANSMITTER POWER.** If the antenna can see 15 miles and say 1 Watt ERP of power used, it's very likely that about 1 or 2 miles of range will result. This is quite simply because there is not enough power to propagate the signal 20 miles. If 50 Watt ERP is used, it's very likely that 20 miles of range will be achieved. This is because 50 Watt ERP is ample power to propagate a strong signal 20 miles.

Type of FM antenna can be used:

FM Antenna specs:

FM Broadcast Yagi Antenna Features:

Frequency Band: 87.5-108 MHz

Bandwidth: FM (Band II)

Average Gain: 5.2 dBd (7.35 dBi)

VSWR: < 1.3:1

Polarization: Vertical, Slant, or Horizontal

Max Power: 5kW (Single Carrier)

Connector: 7/8" EIA

- Power of the transmitter, depending on the power the conductor size of the cable shall

- For smaller FM transmitters with 50 ohms impedance- you can use RG-58/U or RG-213/U cables.
- For a higher-watt FM Transmitter with 50 ohms impedance- you can use LMR600, 1/2" Flex Feeder, 7/8' Flex Feeder, 1-5/8 Flex Feeder.
- Connectors vary as per the size of the cable.

The minimum equipment to start in the Radio Studio is:

1. Mixer Console
2. Microphones
3. Headphones
4. Headphones distributor
5. Active Speakers Monitors
6. Mic Arms
7. On Air Light

Then you can optionally add:

1. Microphone Processor
2. Audio Processor
3. Phone Hybrid Interface
4. Telephone
5. GSM Interface
6. On Air Light
7. CD player
8. Tuner FM Receiver good quality
9. RDS Encoder
10. Moreover, you can add:
11. Computer with automation and playlist software
12. Computer Monitor
13. Broadcast desk and Furniture

For a small local radio just a 4-channel audio console, (the type used for music recording), a microphone and headphones for a few euros, a table, a chair, a 50W transmitter and an antenna.... with less than €2.000 you are on-air!

In conclusion, starting from a small budget, choosing carefully, and up to large sums you can always make good radio in a dignified way and with good quality.

After all, as in all things in life, what matters is: to make the right choices and have high-quality content.

CONCLUSION

Building a radio or modernizing it is not easy, but it is certainly an exciting activity. I will try to get all the technical requirement proposals to re-activate the AM broadcast on 1503KHz

Regards.

Savu Koroi

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