A85-1-1

**1566 t KOREA, Cheju : Possibly the intriguing unID heard several times in September/October. Very good on 10/26 2016-2035 w/normally dominant mix of Samen, Sfax, unID RR Hayaa, and jammer partially nulled. Program was religious mx in EE and oriental lang, talk in oriental lang. App. s/on noted on 10/11 1857-1900 w/bells playing rig. tune. Will keep trying for more positive ID material. (Eckman-UK) (Sounds like you're onto a great catch, Rich)

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Since I've started using the "PIT" designation for myself in DXR, I have also started using it in DXW to avoid any unnecessary confusion. Richard Eckman, thanks for the great report - please report as often as possible. Along with Bill Harms, it's great to have two Europeans reporting in DXW-E. I have procured a copy of the FCC's Cuban Standard Broadcast List (contacted the right man in D.C. and got one FOC) - I will be glad to send a copy to you if you enclose an SASE with 39¢ postage and an IRC or anything to supplement the cost of copying and mailing. It is eight pages and covers the entire BCB for Cubans. Thanks for all the positive comments on the column - it's not easy sometimes. Please let me know if you have any problems with DXW-E.

CREDITS:

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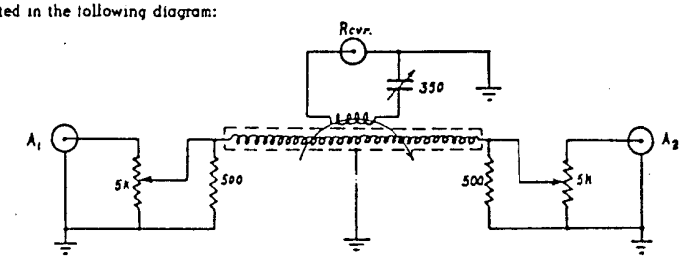
PHASING NETWORK FOR BEVERAGE ANTENNA

Following is a brief description of the phasing network used in conjunction with the beverage antennas at Powder Springs, Georgia.

This network consists essentially of an artificial transmission line, with a combination of the desired and undesired signals being fed into one termination, and the undesired signal being fed into the other termination. Provision is made for coupling the receiver to any point along this "transmission line". It will be found that the phasing of the two sets of signals varies progressively along this line; if this line is sufficiently long one or more points will be found where the undesired signals will be out of phase and will cancel out leaving the desired signal. This is on the assumption that the ratio of the desired to undesired signal differs on the two antennas being used to feed the transmission line network.

The network as actually constructed consists of a relatively long single layer inductance with shunt capacitance to ground being provided to simulate a transmission line. Connections are as indicated in the following diagram:



The coil consists of about 12 inches of #20 enameled wire wound on a 3 inch form. Both an outside and inside electrostatic shield is used to provide a uniform shunt capacitance to ground. The pickup coil consists of about 30 turns of the same size wire and is arranged to slide over the main coil; this coil is tuned for improved pickup. Both ends of the transmission line " are terminated to eliminate standing waves as far as practicable; resistors R_1 and R_2 are provided for adjusting the amplitude of the signals being fed into the network. When operating the combination of the desired and undesired signals is fed into one antenna terminal and the undesired signal is fed into the other antenna terminal. The position of the pickup coil is then varied until a point is found where the undesired signal begins to phase out; the appropriate potentiometer is then adjusted along with the pickup coil until the signal has been effectively reduced.

The use of this system is of course limited by fading and changing phase relationships on the antenna employed, but has nevertheless been found quite useful in a number of instances where the desired degrees of rejection could not be obtained with the absorption type network which has been employed in the past.

52 OHM coaxial transmission line may be used for coupling a radio receiver to a beverage antenna by providing a suitable coupling transformer as follows:

All coils should be "close wound ".

The astatic shield may be of tinfoil or thin copper "shim" material. Scotch tape is useful in folding over the ends of the shield to prevent a closed turn.

In order to further minimize any capacity unbalance, the winding to the coaxial line should be a center tapped, reversed winding coil. After the first half of the coil is wound and the center-tap is reached, the direction of the winding is reversed. Viewing the coil form from one end, the winding should progress in a counter-clockwise direction to the center-tap, and then change to a clockwise direction for the remainder of the winding.

The center-tap should go to the coax shield (ground), and the outer extremities of this winding should be paralleled and go to the coax center lead.

-via Glen Kippel

Transformer Data:

Coil Form: ——— Bakelite, 3 7/8" I.D., 4" O.D.

Secondary: ——— 32 turns D.S.C. #26 B & S, center tapped, reversed winding. (52 ohm)

Insulation: ——— 2 turns 1" varnished cambric insulating tape.

Astatic Shield: ——— 7/8" broken turn tinfoil, grounded.

Insulation: ——— 2 turns 1" varnished cambric insulating tape.

Primary: ——— 60 turns D.S.C. #26 B & S. (700 ohm)

Mounting: ——— Housed in center of round copper shield can 8" diameter and 5" deep with a continuing 3" skirt for terminal strip weather protection.