## **New RAYTHEON TUBES**

Additions to the RK Family

RK-30—A new low inter-electrode capacitance tube with plate and grid-leads out top of bulb. Molybdenum plate, thoriated tungsten filament. Plate supported free from stem.

FILAMENT: 7.5, V. 3.25 A.

OUTPUT: 50 W. at 1000 V. Plate, 65 W. at 1250 V. Plate.

OVERALL DIMENSIONS: 2 11/16" x 6 3/8"

AMATEUR NET PRICE . . . . . . . \$10.95

RK-31—Zero Bias Class B, modulator tube. Molybdenum plate, thoriated tungsten filament. Plate terminal cap at top of bulb.

FILAMENT: 7.5, V. 3.0 A.

OUTPUT at 1000 V. Plate 110 W. per pair with 13,600 ohm plate load.

OUTPUT at 1250 V. Plate 140 W. per pair with 17,000 ohm plate load.

OVERALL DIMENSIONS: 2 1/16" x 8 1/2"

AMATEUR NET PRICE . . . . . . . \$10.95

RK-34—Ultra high-frequency dual triode Isolantite base. Plate-leads out top of bulb. Uni potential cathode system.

HEATER: 6.3 V., 0.8 A.

OUTPUT at 400 V., 20 W.

AMATEUR NET PRICE . . . . . . \$3.50

Ask your dealer or write to the nearest Raytheon office RAYTHEON PRODUCTION CORP.

30 East 42nd Street, New York, N. Y.

55 Chapel St. 445 Lake Shore Dr. 555 Howard St. Newton, Mass. Chicago, Ill. San Francisco, Cal.

## RAYTHEON

4-PILLAR RADIO TUBES

## W3SI

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about 200 feet from the highway, the line from the antenna to the shack being 175 feet long.

The "Q" drops the auto noise from the R8 to R9 level heard on the other antennas to a level so low that even with the gain wide open only an occasional car is heard very faintly. At the same time it gives a signal boost of about 6 db over the other antennas. When used on the transmitter the reports average one R better than when using a half- or full-wave Zepp.

On 40 meters a half-wave Zepp with three-quarter-wave feeders is used. This antenna and the "Q" are stretched end to end between the 75-foot poles. The other antennas are suspended between the poles and near-by trees.

Several odd and amusing incidents occurred during the International. For instance, there was the evening that the ZL's started rolling in with R8 signals on 20 meters; and, of eighteen logged, all but two had been contacted previously on 40 with due loss of sleep. Another, when OA4J and ZE1JB, both of whom were needed badly for new country credit, called CQ at the same time!

One disappointment of the tests was the fact that the Asians who usually are quite reliable did not come through at any time. DX conditions were not nearly so good at this QRA as they were during the several weeks preceding the contest.

Several new transmitters are under construction at present. These will be of one-k.w. input but the number of stages will be reduced to a crystal oscillator, a buffer-driver and the final. This is being done to facilitate fast frequency changes.

A great deal of experimental work is being done on antennas and construction of several directive arrays is planned during the summer.

## Technical Topics

(Continued from page 22)

Of course these rules are for transmitters that really are capable of 100 percent modulation without distortion. And they assume that the indicating meters have normal accuracy, unaffected by metal panels, adjacent chokes and transformers, etc.

-J, J, L,



Apologies to Sugar Beet.

There are meters iambic,
There are meters trochaic,
There are meters of musical tone,
But the meter
That's sweeter
And neater,
Completer
Is the one with four amps showin'.

-W9AFT