THEORY AND PRACTICAL ATTAINMENTS IN THE DESIGN AND USE OF RADIO-DIRECTION FINDING APPARATUS USING CLOSED COIL ANTENNAS.*

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(SUPPLEMENTARY NOTE.)

INFORMATION concerning coil receivers for wave-lengths below 1000 metres has already appeared in this JOURNAL¹ in connection with the data for longer wave-lengths. The following results on 4' and 6' loops for $\frac{1}{4}$ " and $\frac{7}{16}$ " wire spacing, respectively, which values correspond to the best values of spacing for these sizes of loops as determined by the curve, Fig. 21, page 309, of the original paper, have recently been obtained:

Four-foot Loop— $\frac{1}{4}$ " Spacing.

Four turns.		Seven turns.		Ten turns.	
Wave-length.	Resistance.	Wave-length.	Resistance.	Wave-length.	Resistance.
220 metres	14.8 ohms	330 metres	10.5 ohms	450 metres	13.2 ohms
275 metres	3.95 ohms	390 metres	7.5 ohms	600 metres	6.8 ohms
350 metres	2.65 ohms	450 metres	5.55 ohms	800 metres	4.55 ohms
450 metres	2.15 ohms	600 metres	3.6 ohms	1000 metres	3.6 ohms
600 metres	1.6 ohms	1000 metres	2.5 ohms	1400 metres	2.8 ohms
800 metres	1.4 ohms				

Six-foot Loop— $\frac{7}{16}$ " Spacing.

Three turns.		Five turns.		Seven turns.	
180 metres	11.4 ohms	275 metres	20.0 ohms	400 metres	20.0 ohms
260 metres	5.5 ohms	305 metres	12.9 ohms	550 metres	8.6 ohms
360 metres	3.4 ohms	400 metres	6.5 ohms	750 metres	6.0 ohms
500 metres	2.5 ohms	500 metres	4.6 ohms	1200 metres	3.4 ohms
750 metres	2.0 ohms	750 metres	3.0 ohms		
1000 metres	1.9 ohms				

Ten Turns.

660 metres	22.6 ohms
600 metres	17.2 ohms
750 metres	10.5 ohms
1000 metres	6.5 ohms
1500 metres	4.4 ohms

* Communicated by Maj.-Gen. George Owen Squier, Chief Signal Officer, U. S. A.

¹ Vol. 188, page 289 (September, 1919).