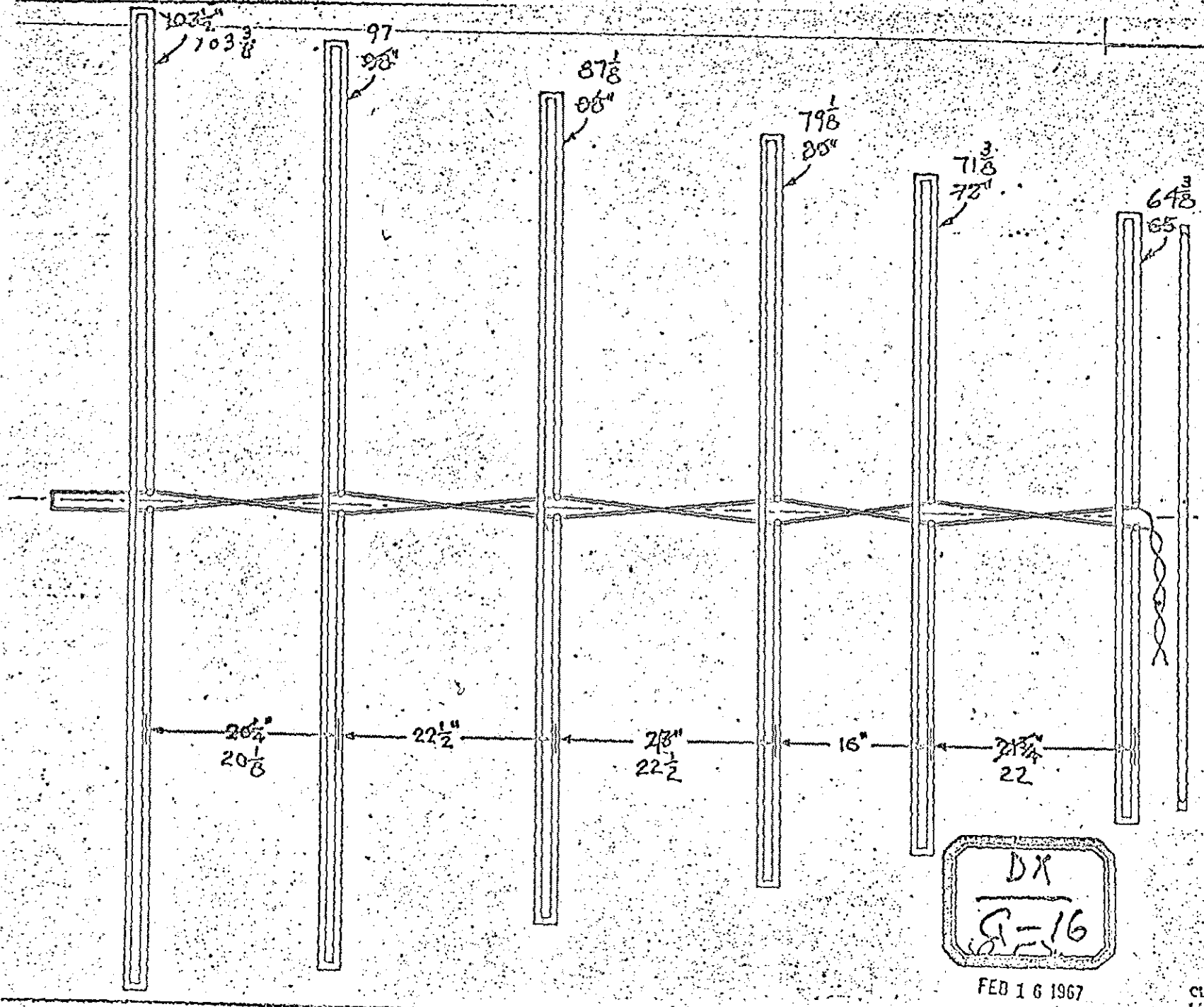
TAU VALUES FOR CHANNEL MASTER "K.O." ANTENNA

DIPOLE NO.	DIPOLE LENGTH	τ_L	DIPOLE SPACING	τ_S	CELL DIMENSION	τ_c
1	64 3/8"					
		.90	22"		39.0"	
2	71 3/8"			1.38		.997
		.90	16"		39.1"	
3	79 1/8"			.71		.86
		.91	22 1/2"		45.5"	
4	87 1/8"			1.00		.93
		.90	22 1/2"		48.8"	
5	97"			1.11		.93
		.94	20 1/8"		52.5"	
6	103 3/8"					

TAU VALUES FOR CHANNEL MASTER "K.O." ANTENNA

DIPOLE NO.	DIPOLE LENGTH	τ_L	DIPOLE SPACING	τ_S	CELL DIMENSION	τ_C
1	64-3/8"					
		.90	22"		39.0"	
2	71-3/8"			1.38		.997
		.90	16"		39.1"	
3	79-1/8"			.71		.86
		.91	22-1/2"		45.5"	
4	87-1/8"			1.00		.93
		.90	22-1/2"		48.8"	
5	97"			1.11		.93
		.94	20-1/8"		52.5"	
6	103-3/8"					



UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
BEFORE JUDGE HOFFMAN

DEFENDANT'S EX. NO. 6

DOROTHY L. BIRCKHEAD
OFFICIAL COURT REPORTER

CHANNEL MASTER
"K.O."-model 1023

APPENDIX C

DX
C-16

FEB 16 1967

FILED
FEB 17 1967
E. E. WILLIAMSON
CLERK, U. S. DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS

DIMENSIONS AND TAU VALUES FOR DIPOLES 2, 3, AND 4 OF CHANNEL MASTER "K.O." ANTENNA

DIPOLE NO.	DIPOLE LENGTH	τ_L	DIPOLE SPACING	τ_S
2	71 3/8"	.90	16"	.71
3	79 1/8"	.91	22.5"	
4	87 1/8"			

CLAIMS 1-13 INCLUSIVE

DIMENSIONS AND TAU VALUES FOR FOR DIPOLES 2, 3, 4, 5, AND 6 OF CHANNEL MASTER "K.O" ANTENNA

DIPOLE NO.	DIPOLE LENGTH	τ_L	CELL DIMENSION	τ_c
2	71 3/8"			
		.90	39.1"	
3	79 1/8"			.86
		.91	45.5"	
4	87 1/8"			.93
		.90	48.8"	
5	97"			.93
		.94	52.5"	
6	103 3/8"			

CLAIMS 15 AND 16

τ_L Calculations

$$71.375 \overline{)64.375.0000} \quad .9019+ \quad \text{or } .902 \quad \text{or } .90$$

64 2375
1 375 00
71375
661250
642375

$$79.125 \overline{)71.375.0000} \quad .9020+ \quad \text{or } .902 \quad \text{or } .90$$

712125
162500
158250
4 2500

$$87.125 \overline{)79.125.0000} \quad .9081+ \quad \text{or } .908 \quad \text{or } .91$$

784125
71 2500
69 7000
1 5500 0
87125

$$97 \overline{)87.1250} \quad .8981+ \quad \text{or } .898 \quad \text{or } .90$$

776
952
873
795
776
190
97

$$103.375 \overline{)97.000.0000} \quad .9383+ \quad \text{or } .938 \quad \text{or } .94$$

93 0375
396250
310125
861250
827000
34250 0

τ_s Calculations

$$
\begin{array}{r}
1.375 \\
16 \overline{)22.000} \\
16 \\
\hline
60 \\
48 \\
\hline
120 \\
112 \\
\hline
80 \\
80 \\
\hline
\end{array}
$$

$= 1.375$ or 1.38

$$
\begin{array}{r}
.7111+ \\
22.5 \overline{)16.0.0000} \\
1575 \\
\hline
250 \\
225 \\
\hline
250 \\
225 \\
\hline
250 \\
225 \\
\hline
\end{array}
$$

or $.711$ or 0.71

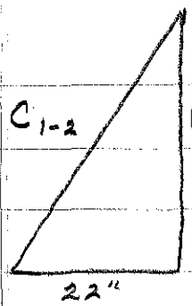
$$
\begin{array}{r}
1.000 \\
22.5 \overline{)22.5.000}
\end{array}
$$

$= 1.000$ or 1.00

$$
\begin{array}{r}
1.113+ \\
20.125 \overline{)22.500.000} \\
20125 \\
\hline
23750 \\
20125 \\
\hline
36250 \\
20125 \\
\hline
61250 \\
60375 \\
\hline
\end{array}
$$

or 1.113 or 1.11

Cell Dimension and Tc Calculations



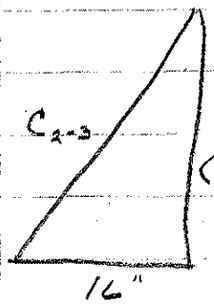
$C_{1-2} = \sqrt{22^2 + 32.2^2}$

$= \sqrt{484 + 1036.8}$

$= \sqrt{1520.8}$

$= 39.0"$

$(Tc)_2 = \frac{39}{39.1} = .997$



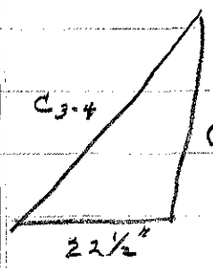
$C_{2-3} = \sqrt{16^2 + 35.69^2}$

$= \sqrt{256 + 1273.8}$

$= \sqrt{1529.8}$

$= 39.1"$

$(Tc)_3 = \frac{39.1}{45.5} = .857$



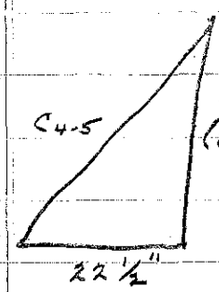
$C_{3-4} = \sqrt{22.5^2 + 39.56^2}$

$= \sqrt{506.3 + 1565.0}$

$= \sqrt{2071.3}$

$= 45.5"$

$(Tc)_4 = \frac{45.5}{48.8} = .932$



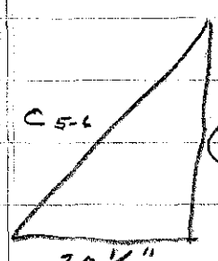
$C_{4-5} = \sqrt{22.5^2 + 43.56^2}$

$= \sqrt{506.3 + 1887.5}$

$= \sqrt{2393.8}$

$= 48.8"$

$(Tc)_5 = \frac{48.8}{52.5} = .930$



$C_{5-6} = \sqrt{20.125^2 + 48.5^2}$

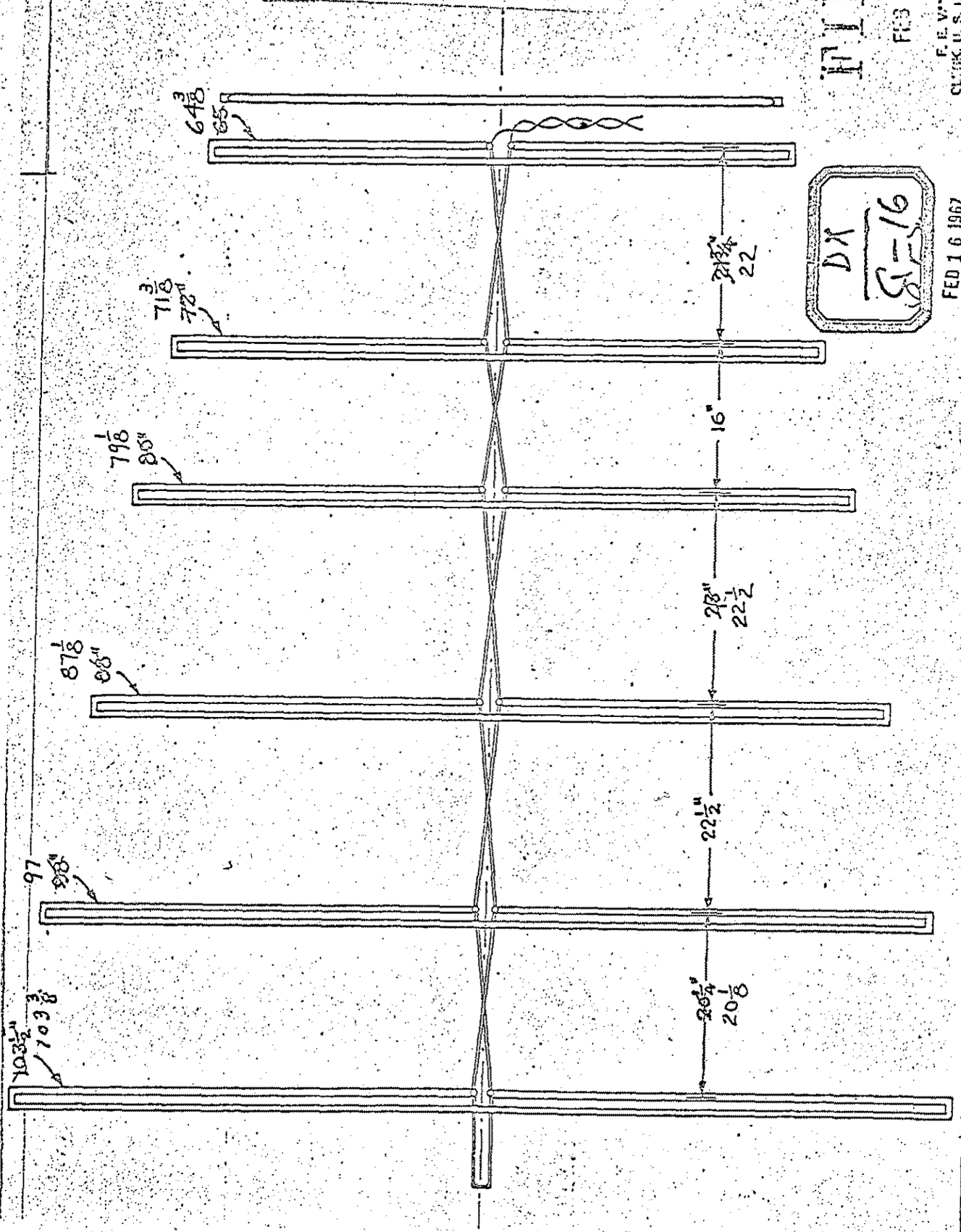
$= \sqrt{405.0 + 2352.3}$

$= \sqrt{2757.3}$

$= 52.5"$

APPENDIX C

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