TABLE OF HYPERBOLIC FUNCTIONS OF PROPAGATION CONSTANTS

NON-LOADED 26 GAUGE AST CABLE AT 1000 CPS

(Propagation Constant, γ = .3071 + j .3106 Per Mile)

Miles (ℓ)	Sinh $\gamma\ell$	Cosh $\gamma\ell$	Tanh $\gamma\ell$	Coth $\gamma\ell$
0	0 + j 0	1 + j 0	0 + j 0	∞ - j ∞
1	.2970 + j .3202 .4367 / 47.2°	.9974 + j .0953 1.0020 / 5.5°	.3255 + j .2898 .4358 / 41.7°	1.7136 - j1.5259 2.2945 / 41.7°
2	.5315 + j .6953 .8751 / 52.6°	.9714 + j .3804 1.0433 / 21.4°	.7174 + j .4347 .8388 / 31.2°	1.0196 - j .6179 1.1922 / 31.2°
3	.6306 + j1.1681 1.3275 / 61.6°	.8679 + j .8487 1.2139 / 44.3°	1.0443 + j .3246 1.0936 / 17.3°	.8732 - j .2714 .9144 / 17.3°
4	.5036 + j1.7552 1.8260 / 74.0°	.5980 + j1.4781 1.5945 / 68.0°	1.1389 + j .1200 1.1452 / 6.0°	.8684 - j .0915 .8732 / 6.0°
5	.0394 + j2.4291 2.4294 / 89.1°	.0432 + j2.2138 2.2142 / 88.9°	1.0972 + j .0035 1.0972 / 0.2°	.9114 - j .0029 .9114 / 0.2°
6	.8882 + j3.0980 3.2228 / 106.0°	- .9339 + j2.9463 3.0908 / 107.6°	1.0423 - j .0288 1.0427 / 1.6°	.9586 + j .0265 .9590 / 1.6°
7	-2.4019 + j3.5813 4.3122 / 123.9°	-2.4680 + j3.4854 4.2707 / 125.3°	1.0094 - j .0255 1.0097 / 1.4°	.9901 + j .0251 .9904 / 1.4°
8	-4.5861 + j3.5881 5.8229 / 142.0°	-4.6539 + j3.5358 5.8448 / 142.8°	.9962 - j .0139 .9963 / 0.8°	1.0037 + j .0140 1.0038 / 0.8°
9	-7.4306 + j2.7019 7.9066 / 160.0°	-7.4899 + j2.6805 7.9551 / 160.3°	.9939 - j .0052 .9939 / 0.3°	1.0061 + j .0053 1.0061 / 0.3°
10	-10.7517 + j .3845 10.7586 / 178.0°	-10.7982 + j .3829 10.8050 / 178.0°	.9957 - j .0003 .9957 / 0°	1.0043 + j .0003 1.0043 / 0°

Note: The data in this table are furnished for use with formulae such as those on Page 35 of Section AB92.075, "Introduction to Telephone Transmission Theory."