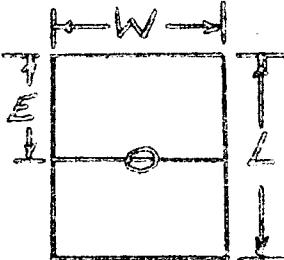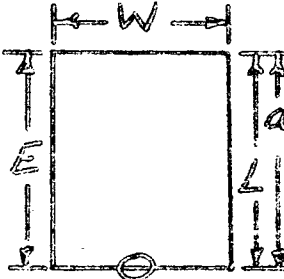# CONVERTING FACTORS FOR DETERMINING AVERAGE YARDING DISTANCES

FROM SETTING EXTERNAL DISTANCES
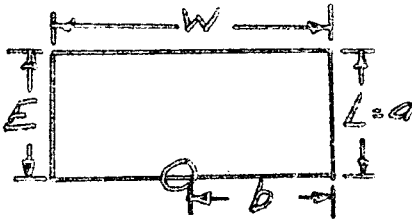
A. Landings in center of settings with approximate rectangular shape.

L Length	W Width	Converting Factor
1	.75	.658
1	.50	.578
1	.25	.523
1	.125	.506
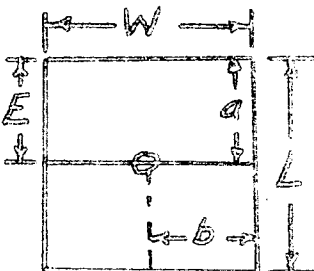
B. Landings at midpoint of short side of settings with approximate rectangular shape.

Length	Width	Converting Factor
1	.75	.548
1	.50	.523
1	.25	.506

C. Landings at midpoint of long side of settings with approximate rectangular shape.

Length	Width	Converting Factor
1	1.25	.618
1	1.50	.658
1	1.75	.699
1	2.00	.747
1	3.00	.943

D. Settings with approximate square shapes. Landing in the middle of a square setting.

Length	Width	Converting Factor
1	1	.747

a & b Sch. 19 Chart 1 yarding distance factors

E = External Distance

Landing on side of a square setting.
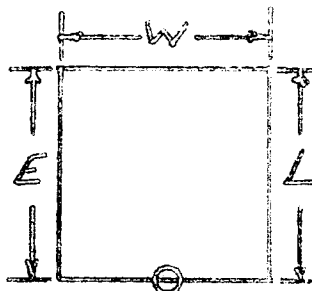
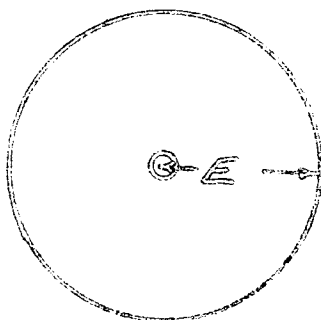| Length	Width	Converting Factor
1	1	.578

E. Settings which approach a circle or segments of a circle.
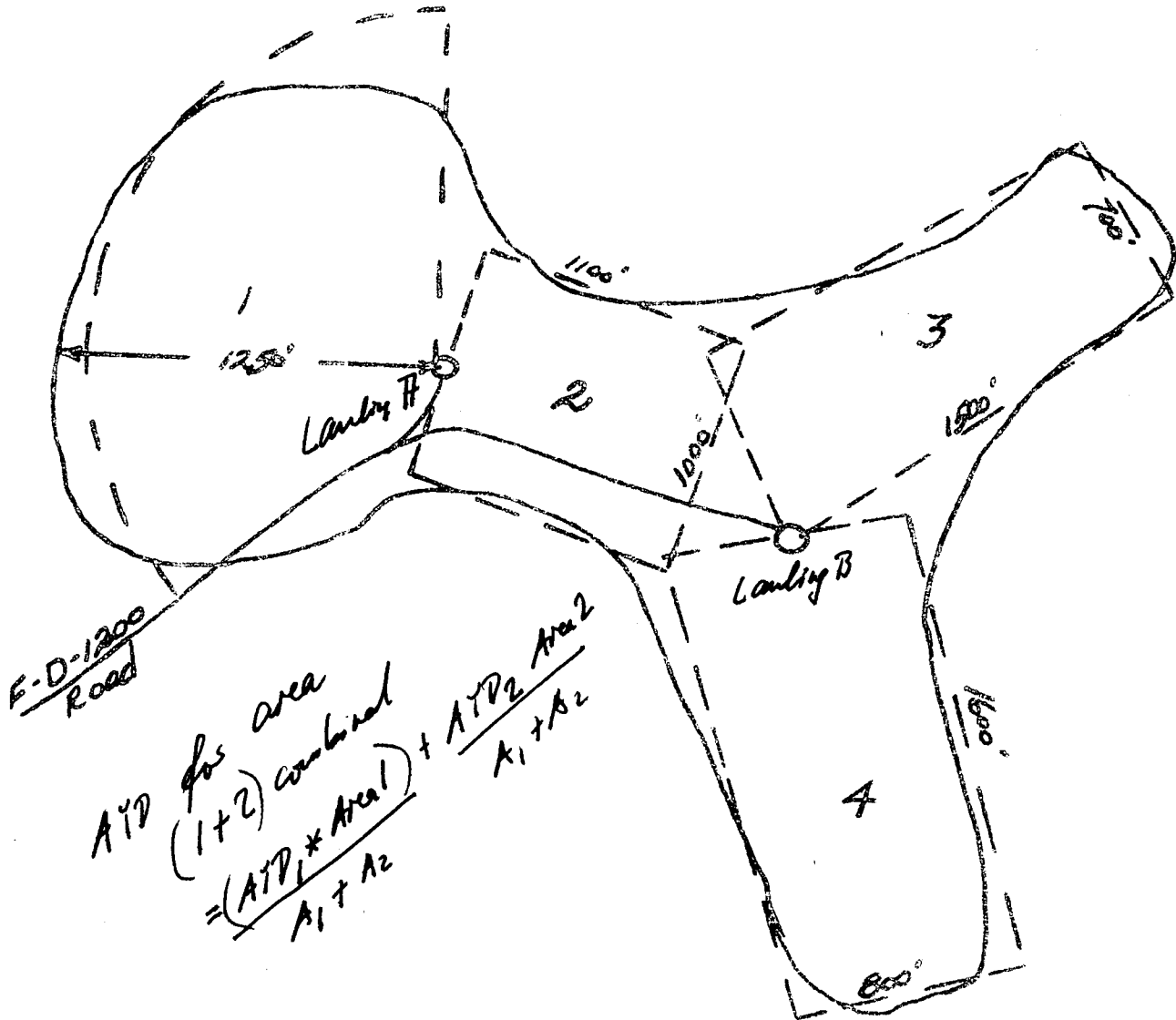

Landing in center of a circle or at the apex of a circle when E = radius

Converting factor = 0.667

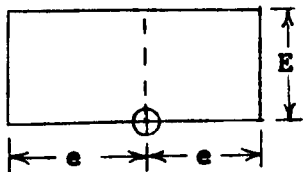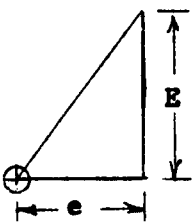While settings very seldom conform to symmetrical shapes, with care the foregoing factors may be used to advantage.
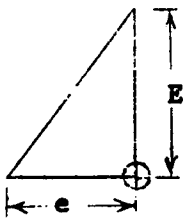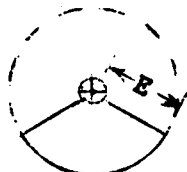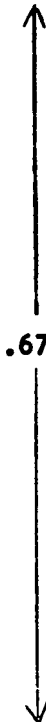
A theoretical setting, shown below, is used to explain the application to a setting.

Area 1.   External distance is 1250' therefore average skidding distance will equal 1250' x .667 or 837.5 ft.   Assume a fan shape

Area 2.   Approximates a square with the landing on one side 1100' x .578 = 636 foot average skid.

Area 3.   Approximates situation where the landing is in the same situation as in Area 2.   1500' x .578 = 867 foot average skid.

Area 4.   Approximates a rectangular setting with the landing in the center of the smaller dimension (w) which is half the larger dimension (1).   1600' x .523 = 837 foot skid.

HANDBOOK ON TIMBER APPRAISAL

Table 415.36b
AVERAGE SKIDDING DISTANCE FACTORS 1/

Figure 1	Figure 2	Figure 3	Figure 4

(Same factor applies to whole or either half of rectangle)

$\frac{E}{e}$	"E" Factors			
	Figure 1	Figure 2	Figure 3	Figure 4
.6	1.01	1.16	.65	
.7	.91	1.01	.59	
.8	.84	.90	.54	
.9	.79	.81	.50	
1.0	.75	.75	.47	
1.1	.71	.69	.45	
1.2	.68	.65	.43	
1.3	.66	.62	.42	
1.4	.64	.58	.41	
1.5	.63	.55	.40	
1.6	.62	.53	.39	
1.7	.61	.51	.39	
1.8	.59	.50	.38	
2.0	.58	.47	.37	.67
2.2	.57	.45	.37	
2.4	.56	.43	.36	
2.6	.55	.42	.36	
2.8	.54	.41	.35	
3.0	.54	.40	.35	
3.2	.53	.39	.35	
3.4	.53	.39	.35	
3.6	.53	.38	.35	
3.8	.52	.38	.34	
4.0+	.52	.37	.34	

E = External skidding distance.

Determine ratio E/e. Multiply E by factor to determine average skidding distance.

1/ Figures 1-3 factors based on geometry as shown on page 83, item 5, 415.9. Figure 4 based on PNW, RN PNW-24, May 1965, Lysons and Mann, "Correction of Average Yarding Distance Factor for Circular Settings."