

DIRECTIONS FOR USE OF STADIA CHART

Cut vertical scale along line C D; fasten on T square with thumb tacks so that line A B coincides with right edge of T square; adjust chart so that edge C D of vertical scale parallels vertical line on chart and zero on vertical scale coincides with the zero degree line on chart.

The horizontal and vertical scales work in pairs. Select in a color, the rod reading on horizontal scale, then look in the same color for the results.

The formulas used in the construction of this chart are:
 Difference of elevation = $\frac{1}{2} \sin 2a$
 Horizontal distance = $\frac{\cos^2 a}{2}$

EXAMPLE 1:

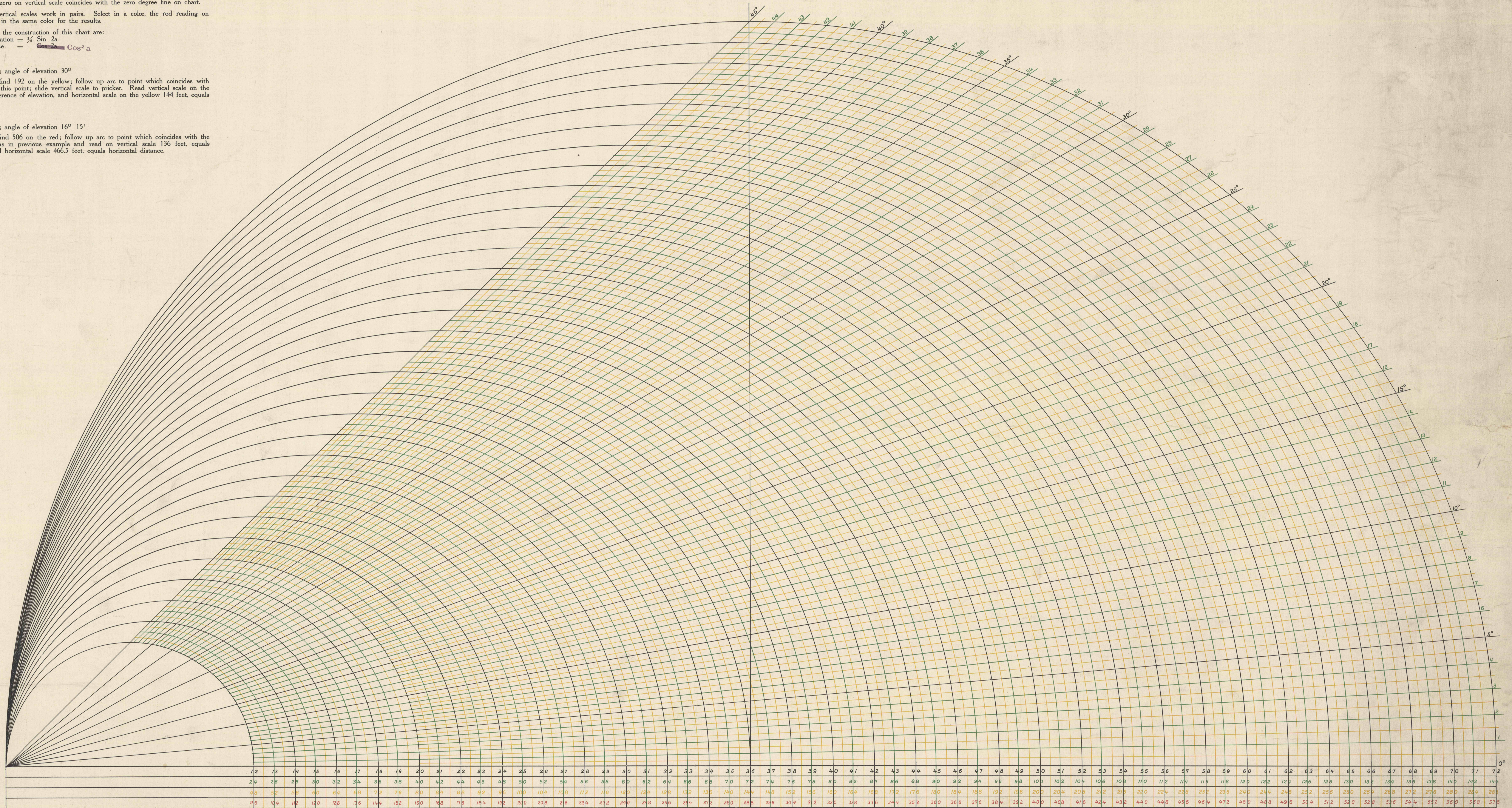
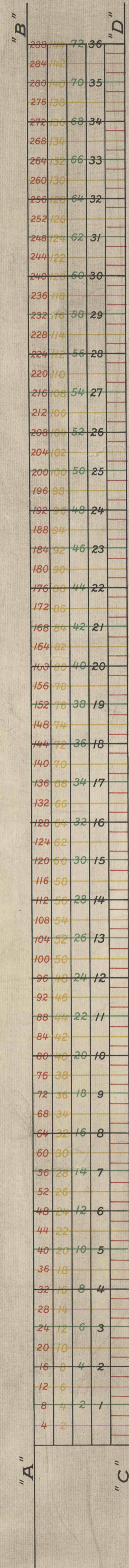
Rod reading 192 feet; angle of elevation 30°

On horizontal scales find 192 on the yellow; follow up arc to point which coincides with 30° line; place pricker at this point; slide vertical scale to pricker. Read vertical scale on the yellow 53 feet, equals difference of elevation, and horizontal scale on the yellow 144 feet, equals horizontal distance.

EXAMPLE 2:

Rod reading 506 feet; angle of elevation 16° 15'

On horizontal scales find 506 on the red; follow up arc to point which coincides with the 16° 15' line. Proceed as in previous example and read on vertical scale 136 feet, equals difference of elevation, and horizontal scale 466.5 feet, equals horizontal distance.



12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
24	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110	112	114	116	118	120	122	124	126	128	130	132	134	136	138	140	142	144	
48	52	56	60	64	68	72	76	80	84	88	92	96	100	104	108	112	116	120	124	128	132	136	140	144	148	152	156	160	164	168	172	176	180	184	188	192	196	200	204	208	212	216	220	224	228	232	236	240	244	248	252	256	260	264	268	272	276	280	284	288
96	104	112	120	128	136	144	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	280	288	296	304	312	320	328	336	344	352	360	368	376	384	392	400	408	416	424	432	440	448	456	464	472	480	488	496	504	512	520	528	536	544	552	560	568	576