

XIV.

Latitud de Yuma.

Método "Talcott."

Instrumentos.
Telescopio cenital.
Cronómetro interruptor.
Cronógrafo de tira.

Personal.
Observador, Guillermo B. y Puga.
Ayudante, Leopoldo Lobo.

Valor angular de las revoluciones del micrómetro.

DICIEMBRE 21 DE 1893. 15 Lyncis. $R = 6\ 47\ 68.1$ $\delta = 58^\circ\ 33'\ 45.35''$

Hora sidérea de la bisección.	Micrómetro.	Hora sidérea de la bisección.	Micrómetro.
<i>h. m. s.</i>		<i>h. m. s.</i>	
2 16 14.94	-30.0	2 21 27.68	5.0
16 59.60	-25.0	22 12.60	10.0
17 44.65	-20.0	22 56.53	15.0
18 28.58	-15.0	23 41.39	20.0
19 13.56	-10.0	24 26.25	25.0
19 58.38	-5.0	25 11.12	30.0
20 42.96	0.0		

Valor de R = 69.9291".

El nivel conservó durante el tránsito de la estrella las mismas indicaciones.

Observación de los pares.

DICIEMBRE 18 DE 1893.

Pares.	Tiempo sidéral de la bisección.	Micrómetro.	Nivel.		δ	$\frac{1}{2}(\delta + \delta')$	Correcciones.				Latitud $32^\circ\ 43'$
			oc.	ob.			m.	n.	r.	r. m.	
	<i>h. m. s.</i>				<i>o' "</i>	<i>o' "</i>	<i>' "</i>	<i>' "</i>	<i>' "</i>	<i>' "</i>	
2	28 54 9.8	-15.482	26.2	9.0	6 16 35.06	32 25 22.14	+18 13.764	-4.050	0.380	-0.148	32.086
	0 2 55.6	+15.805	18.0	1.0	58 33 69.22	32 25 22.14	+18 13.764	-4.050	0.380	-0.148	32.086
7	1 26 10.6	-12.635	15.0	-5.0	14 47 62.83	32 28 47.105	+14 45.161	-1.750	+0.226	+0.147	30.889
	1 37 32.6	+12.681	17.0	0.0	50 8 91.38	32 28 47.105	+14 45.161	-1.750	+0.226	+0.147	30.889
8	1 46 20.6	-9.550	35.2	15.8	63 8 69.72	32 54 31.490	-11 3.347	+4.000	-0.120	-0.111	31.912
	1 48 27.6	+9.423	19.0	0.0	2 39 53.26	32 54 31.490	-11 3.347	+4.000	-0.120	-0.111	31.912
9	2 11 44.6	+0.369	30.0	13.0	-6 54 38.03	32 43 27.675	-0 1.238	+6.750	-0.025	+0.082	33.224
	2 27 30.6	-0.406	15.5	-0.5	72 20 93.38	32 43 27.675	-0 1.238	+6.750	-0.025	+0.082	33.224
11	2 39 22.0	-8.566	30.0	14.0	9 39 65.29	32 22 49.720	+9 49.642	-3.875	+0.192	+0.031	35.710
	2 42 43.0	+8.297	22.5	6.0	55 27 34.15	32 22 49.720	+9 49.642	-3.875	+0.192	+0.031	35.710
14	3 38 8.0	-14.705	26.5	8.0	42 14 48.68	33 0 48.125	-17 15.230	+4.375	-0.296	-1.598	35.376
	3 41 47.0	+14.618	35.0	17.0	23 46 47.57	33 0 48.125	-17 15.230	+4.375	-0.296	-1.598	35.376
15	4 12 23.4	-2.670	34.0	15.2	50 39 62.68	32 40 20.770	+3 4.963	+9.950	+0.0058	-1.823	33.518
	4 15 27.6	+2.621	54.0	35.0	14 50 38.86	32 40 20.770	+3 4.963	+9.950	+0.0058	-1.823	33.518
16	4 45 53.6	-6.480	31.5	11.5	5 25 32.50	31 51 28.165	-7 46.777	-6.750	-0.168	-1.900	33.170
	4 54 54.0	+6.870	18.0	-2.0	60 17 23.83	31 51 28.165	-7 46.777	-6.750	-0.168	-1.900	33.170

Las divisiones del micrómetro se consideraron negativas y positivas, colocando el cero en la división media de la escala, en las tres noches de observaciones hechas en Yuma.

Observación de los pares—Continuación.

DICIEMBRE 19 DE 1893.

Pares.	Tiempo sidéreo de la bisección.	Micrómetro.	Nivel.		δ	$\frac{1}{2}(\delta + \delta')$	Correcciones.				Latitud $32^\circ\ 43'$
			oc.	ob.			m.	n.	r.	r. m.	
	<i>h. m. s.</i>				<i>o' "</i>	<i>o' "</i>	<i>' "</i>	<i>' "</i>	<i>' "</i>	<i>' "</i>	
1	23 15 31.1	+9.152	32.0	18.0	29 9 40.04	32 55 21.325	-11 52.966	+5.250	-0.222	-0.151	33.106
	23 32 40.0	-11.241	54.0	54.0	42 40 62.41	32 55 21.325	-11 52.966	+5.250	-0.222	-0.151	33.106
2	23 53 48.9	-6.229	39.0	18.5	6 16 35.00	32 25 22.115	+18 4.960	+7.875	+0.380	-0.334	34.986
	0 2 55.0	+14.802	55.0	34.0	58 33 69.23	32 25 22.115	+18 4.960	+7.875	+0.380	-0.334	34.986
3	0 12 12.8	+1.645	31.5	11.0	36 12 2.63	32 41 7.750	+2 22.864	+5.375	+0.082	-1.034	35.037
	0 24 3.9	-2.442	19.0	-2.0	29 10 12.87	32 41 7.750	+2 22.864	+5.375	+0.082	-1.034	35.037
4	0 41 27.3	-0.861	34.0	13.0	7 0 31.30	32 42 22.385	+1 0.908	+8.125	+0.025	+2.327	33.770
	0 46 53.0	+0.881	50.0	29.5	58 24 13.57	32 42 22.385	+1 0.908	+8.125	+0.025	+2.327	33.770
7	1 24 34.5	-14.498	30.5	9.0	14 47 62.80	32 28 47.130	+14 45.162	+3.100	+0.266	-3.829	31.829
	1 36 41.9	+10.818	39.0	12.9	50 8 91.46	32 28 47.130	+14 45.162	+3.100	+0.266	-3.829	31.829
8	1 45 50.0	-9.600	34.5	13.5	63 8 69.86	32 54 31.530	-11 0.829	+6.875	-0.120	-0.319	37.137
	1 48 50.2	+9.300	20.5	0.0	2 39 53.20	32 54 31.530	-11 0.829	+6.875	-0.120	-0.319	37.137
9	2 12 16.0	-0.080	35.0	13.0	-6 54 38.13	32 43 27.730	-0 2.028	+7.375	-0.025	-0.129	32.924
	2 27 32.3	+0.028	49.5	28.0	72 20 93.59	32 43 27.730	-0 2.028	+7.375	-0.025	-0.129	32.924
12	2 43 54.7	-5.377	32.5	10.0	26 49 34.50	32 37 46.540	+5 42.632	+4.950	+0.097	+0.466	34.705
	2 58 4.7	+4.424	43.0	20.8	38 25 58.58	32 37 46.540	+5 42.632	+4.950	+0.097	+0.466	34.705
14	3 37 54.9	-15.358	31.0	14.0	42 14 48.80	33 0 48.300	-17 18.167	+6.875	-0.296	-0.009	36.000
	3 41 16.6	+14.335	15.5	-2.0	23 46 47.60	33 0 48.300	-17 18.167	+6.875	-0.296	-0.009	36.000
16	4 45 50.3	+6.442	34.0	14.0	5 25 32.43	32 51 28.245	-7 46.875	-7.874	-0.168	-0.328	33.000
	4 53 32.9	-6.908	49.5	30.0	60 17 24.06	32 51 28.245	-7 46.875	-7.874	-0.168	-0.328	33.000

DICIEMBRE 20 DE 1893.

Pares.	Hora sidérea de la bisección.	Micrómetro.	Nivel.		δ	$\frac{1}{2}(\delta + \delta')$	Correcciones.				Latitud $32^\circ\ 43'$
			oc.	ob.			m.	n.	r.	r. m.	
	<i>h. m. s.</i>				<i>o' "</i>	<i>o' "</i>	<i>' "</i>	<i>' "</i>	<i>' "</i>	<i>' "</i>	
2	23 54 0.9	-15.954	31.5	15.5	6 16 34.94	32 25 22.090	+18 1.383	+9.250	+0.380	+0.061	33.164
	0 3 11.6	-14.974	34.0	50.0	58 33 69.24	32 25 22.090	+18 1.383	+9.250	+0.380	+0.061	33.164
3	0 12 16.3	-1.911	32.0	11.5	36 12 2.49	32 41 7.610	+2 18.531	+6.550	+0.082	+2.707	35.000
	0 24 31.9	+2.046	17.0	1.5	29 10 12.73	32 41 7.610	+2 18.531	+6.550	+0.082	+2.707	35.000
4	0 42 59.1	-0.847	36.0	12.0	7 0 31.14	32 42 22.395	+1 3.006	+8.750	+0.025	+0.458	34.634
	0 47 58.1	+0.955	53.0	30.0	58 24 13.65	32 42 22.395	+1 3.006	+8.750	+0.025	+0.458	34.634
7	1 24 42.2	-14.058	33.0	16.0	14 47 62.77	32 28 47.155	+14 40.966	+8.500	+0.266	-2.194	34.693
	1 36 25.0	+11.138	50.0	33.0	50 8 91.54	32 28 47.155	+14 40.966	+8.500	+0.266	-2.194	34.693
8	1 46 13.2	-8.469	34.0	14.8	63 8 70.00	32 54 31.570	-11 2.968	+7.200	-0.120	+0.142	36.444
	1 48 17.3	+10.475	20.0	0.0	2 39 53.14	32 54 31.570	-11 2.968	+7.200	-0.120	+0.142	36.444
9	2 11 46.7	-0.015	34.8	14.5	-6 54 38.23	32 43 27.785	+0 0.874	+6.170	-0.025	+0.296	35.200
	2 26 53.1	+0.010	47.0	27.0	72 20 93.80	32 43 27.785	+0 0.874	+6.170	-0.025	+0.296	35.200

Observación de los pares—Continuación.

DICIEMBRE 20 DE 1893.

Pares.	Tiempo sidéreo de la bisección.	Micrómetro.	Nivel.		δ	$\frac{1}{2}(\delta + \delta')$	Correcciones.				Latitud 32° 49'
			oc.	ob.			m.	n.	r.	r. m.	
	<i>h. m. s.</i>				<i>o. s. "</i>	<i>o. s. "</i>	<i>" "</i>	<i>" "</i>	<i>" "</i>	<i>" "</i>	
12	2 43 59.6	- 6.301	34.0	13.0	26 49 34.53						
	2 57 53.0	+ 3.420	48.0	27.0	38 25 58.67	32 37 46.600	+ 5 39.890	+7.000	+0.097	+1.185	34.772
14	3 37 25.2	-15.402	35.5	12.5	42 14 48.92						
	3 39 45.4	+14.090	21.5	0.5	23 46 47.63	33 0 48.275	-17 11.173	+6.000	-0.296	-8.372	34.434
15	4 11 33.0	- 2.579	32.0	14.0	50 39 71.37						
	4 14 27.5	+ 2.657	19.5	1.0	14 50 38.83	32 40 25.100	+ 3 3.073	+6.375	+0.058	+0.613	35.219
16	4 45 6.0	+ 6.270	37.0	16.0	5 25 32.36						
	4 53 20.0	- 7.032	51.0	30.0	60 17 24.29	32 51 28.325	- 7 45.099	+7.250	-0.168	-0.630	35.678

El catálogo de los pares observados en Yuma se encuentra en la página 217.

Discusión de las observaciones anteriores.

Pares.	Estrellas.	Latitud.	Promedio.	Δ	Δ^2	$\Delta \varphi$	$\Delta \varphi^2$	$\frac{1}{n}$
1	γ Pegasi.....	33.106				1.177	1.385329	1.000
	ι Andromeda.....							
2	ω Piscium.....	32.086	33.412	1.326	1.758276	0.871	0.758641	0.333
	β Cassiopea.....	34.986		1.574	2.477476			
		33.164		0.248	0.061504			
3	σ Andromeda.....	35.037	35.018	0.019	0.000361	0.735	0.540225	0.500
	δ Andromeda.....	35.000		0.018	0.000324			
4	δ Piscium.....	33.770	34.202	0.432	0.186624	0.061	0.006561	0.500
	ν^1 Cassiopea.....	34.634		0.432	0.186624			
7	η Piscium.....	30.889	32.470	1.581	2.499561	1.813	3.286969	0.333
	φ Persei.....	31.829		0.641	0.410881			
		34.693		0.223	0.049729			
8	ϵ Cassiopea.....	31.912	35.164	3.252	10.575504	0.881	0.776161	0.333
	ξ Piscium.....	37.137		1.973	3.892729			
		36.444		1.280	1.738400			
9	θ Ceti.....	33.224	33.783	0.559	0.312481	0.500	0.250000	0.333
	θ H Cassiopea.....	32.924		0.859	0.737881			
		35.300		1.417	2.007889			
11	μ Ceti.....	35.710				1.427	2.046329	1.000
	η Persei.....							
12	δ Arietis.....	34.705	34.738	0.033	0.001089	0.455	0.207025	0.500
	ρ Persei.....	34.772		0.034	0.001156			
14	ν Persei.....	35.376	35.473	0.097	0.009409	1.190	1.416100	0.333
	η Tauri.....	36.609		1.136	1.290496			
		34.434		1.039	1.079521			

Discusión de las observaciones anteriores—Continuación.

Pares.	Estrellas.	Latitud.	Promedio.	Δ	Δ^2	$\Delta \varphi$	$\Delta \varphi^2$	$\frac{1}{n}$
15	θ^2 Persei.....	33.618	34.368	0.150	0.022500	0.085	0.007225	0.500
	δ Tauri.....	35.219		0.149	0.022201			
16	π Orionis.....	33.170	33.949	0.779	0.606841	0.334	0.111556	0.333
	θ Camelopard.....	33.000		0.949	0.900601			
		35.678		0.271	0.073441			
					35.795499			10.792121
								5.998

$n = 28 \quad m = 12 \quad n - m = 16 \quad q = 0.6745$

$e = 0.6745 \sqrt{\frac{35.795499}{16}} = \pm 1.008$

$E_{\varphi}^2 = 0.455 \frac{10.792121}{12 - 1} = 0.446$

$\epsilon^2 = \frac{(1.008)^2 \cdot 5.998}{12 - 1} = 0.554$

$E_{\delta}^2 = E_{\varphi}^2 - \epsilon^2 = 0.446 - 0.554 = 0.108$

$E_{\delta} = 0.328$



Resultado final.

Pares.	Latitud.	Peso.	$p \cdot \varphi$	Δ	Δ^2
1	33.106	0.240	7.94544	1.118	1.249944
2	33.412	.684	22.85381	0.812	0.659344
3	35.018	.467	16.35341	0.794	0.630436
4	34.202	.467	15.97233	0.024	0.000576
7	32.470	.684	22.30948	1.754	3.076516
8	35.164	.684	24.05218	0.940	0.883600
9	33.753	.684	23.10757	0.441	0.194481
11	35.710	.240	8.57040	1.486	2.208196
12	34.738	.467	16.22295	0.514	0.264196
14	35.473	.684	24.26333	1.249	1.560001
15	34.368	.467	16.04986	0.144	0.020736
16	33.949	.684	23.22112	0.275	0.075625
$m = 12$		$[p] = 6.452$	220.22178		$[\Delta^2] = 10.833631$

Latitud del punto de observación 32 43 34.22
 ± 0.26

XV.

Latitud del monumento antiguo N^o. II, cerca del pueblo de Tijuana.

Método "Talcott."

Instrumentos.
Telescopio cenital.
Cronómetro interruptor.
Cronógrafo de tira.

Personal.
Observador, Guillermo B. y Puga.
Ayudante, José A. Ceballos.

Valor angular de las revoluciones del micrómetro.

JUNIO 29 DE 1894.

τ Draconis $\alpha =$

$\delta = 73^{\circ} 9' 31''$

Micrómetro.	Cronómetro.	Diferencia.	Micrómetro.	Cronómetro.	Diferencia.
R.	<i>h. m. s.</i>		R.	<i>h. m. s.</i>	
35	13 46 48.1		65	13 54 50.4	20.6
40	48 7.1	1 19.0	70	56 9.0	18.6
45	49 27.9	20.8	75	57 32.4	23.4
50	50 48.7	20.8	80	58 52.7	20.3
55	52 9.5	20.8	85	14 0 12.7	20.0
60	53 29.8	20.3	90	1 33.6	20.9

Valor de R = 69.87558".

Observaciones de los pares.

JUNIO 27 DE 1894.

Pares.	Cronómetro.	Micrómetro.	Nivel.		δ	$\frac{1}{2}(\delta + \delta')$	Correcciones.				Latitud $32^{\circ} 32'$ +	
			N	S			m.	n.	r.	r. m.		
	<i>h. m. s.</i>				<i>o. ' "</i>	<i>o. ' "</i>						
1	14 27 24.0	34.869	15.0	33.0	26 58 38.439	32 36 44.888	- 4 23.431	+ 3.750	- 0.075	0.000	25.112	
	33 35.0	47.319	38.0	25.0	38 14 51.338	32 36 44.888						
2	14 40 57.3	44.800	30.5	13.0	16 48 47.516	32 41 12.587	- 8 51.055	+ 5.500	- 0.161	- 0.015	26.556	
	50 33.7	60.000	1.0	20.5	48 33 37.659	32 41 12.587						
4	15 24 8.0	55.306	13.5	31.0	50 46 7.587	32 36 16.532	- 3 54.503	+ 4.000	- 0.073	+ 0.210	26.166	
	31 17.1	48.594	40.5	22.0	14 26 25.477	32 36 16.532						
	$\Delta t = + 11 23.0$											

JUNIO 28.

1	14 27 22.2	55.039	14.5	33.5	26 58 38.635	32 36 45.074	- 4 24.968	+ 4.750	- 0.075	+ 0.169	24.960	
	33 34.0	47.455	43.0	24.0	38 14 51.512	32 36 45.074						
2	14 40 50.4	44.400	37.0	10.0	16 48 47.662	32 41 12.761	- 8 53.325	+ 5.500	- 0.162	+ 0.234	24.998	
	50 51.2	59.665	4.0	21.0	48 33 37.859	32 41 12.761						
	$\Delta t = + 11 24.0$											

JUNIO 29.

1	14 27 18.9	55.694	24.0	40.5	26 58 38.832	32 36 45.259	- 4 22.808	+ 5.875	- 0.075	- 0.692	27.564	
	33 32.1	48.172	53.0	35.0	38 14 51.686	32 36 45.259						
2	14 40 43.4	45.153	35.0	16.0	16 48 47.807	32 41 12.933	- 8 53.672	+ 6.750	- 0.162	+ 0.777	26.636	
	51 8.2	60.428	2.5	21.5	48 33 38.068	32 41 12.933						
3	15 2 21.0	46.530	15.0	35.0	2 10 15.235	32 34 24.062	+ 8 7.382	- 6.850	+ 0.132	+ 0.037	24.813	
	11 34.2	60.480	49.0	28.5	62 33 32.888	32 34 24.062						
	$\Delta t = + 11 25.0$											

Observaciones de los pares—Continuación.

JUNIO 30 DE 1894.

Pares.	Cronómetro.	Micrómetro.	Nivel.		δ	$\frac{1}{2}(\delta + \delta')$	Correcciones.				Latitud $32^{\circ} 32'$ +	
			N	S			m.	n.	r.	r. m.		
	<i>h. m. s.</i>				<i>o. ' "</i>	<i>o. ' "</i>						
7	16 16 0.7	59.274	39.5	9.0	11 42 49.493	32 24 47.363	+ 7 33.632	+ 3.875	0.144	- 0.105	24.809	
	22 14.3	46.290	1.5	31.5	53 6 45.032	32 24 47.363						
8	16 34 49.0	45.355	15.0	32.0	46 10 1.191	32 23 2.341	+ 9 25.049	- 2.250	0.163	- 0.030	25.271	
	39 6.8	61.528	28.0	10.0	18 36 3.491	32 23 2.341						
9	16 44 46.1	61.309	39.0	21.0	31 4 52.244	32 24 2.175	+ 8 22.929	- 1.500	0.143	+ 0.464	25.211	
	46 17.0	46.814	24.0	42.0	33 43 14.106	32 24 2.175						
10	16 52 6.9	58.724	13.0	31.5	54 36 32.300	32 39 37.342	- 7 9.874	- 1.500	- 0.144	- 1.053	24.771	
	56 47.0	46.420	28.5	10.0	10 42 42.484	32 39 37.342						
11	16 59 9.1	54.367	31.5	13.0	24 57 51.566	32 31 15.471	+ 1 13.963	- 0.125	+ 0.019	+ 0.049	29.377	desechada
	17 6 54.2	52.250	13.0	32.0	40 4 39.376	32 31 15.471						
12	17 18 3.0	56.352	33.5	15.0	9 39 26.178	32 27 22.630	+ 5 3.678	- 0.125	+ 0.100	+ 0.274	26.557	
	19 7.0	47.660	15.0	34.0	55 15 19.082	32 27 22.630						
13	17 25 14.9	99.597	17.0	36.0	46 3 41.083	32 40 28.473	- 8 0.220	- 2.250	- 0.136	- 0.262	25.605	
	32 42.1	45.852	32.0	13.0	19 17 15.862	32 40 28.473						
14	17 35 53.7	54.351	15.0	33.5	48 25 17.176	32 35 18.379	- 2 50.356	- 0.875	- 0.051	- 2.776	24.321	
	43 39.0	49.475	32.0	13.0	16 45 19.583	32 35 18.379						
	$\Delta t = + 11 30$											

JULIO 2 DE 1894.

3	15 2 6.9	58.872	36.5	18.5	2 10 15.429	32 24 34.415	+ 8 0.526	- 1.000	+ 0.182	+ 0.337	24.460	
	14 55.0	45.118	16.0	35.0	62 38 33.401	32 24 34.415						
5	40 47.2	58.370	34.0	14.0	14 43 0.378	32 27 0.808	+ 5 23.349	- 1.250	+ 0.091	+ 0.365	23.423	
	45 0.9	49.051	12.0	31.0	50 11 1.357	32 27 0.808						
6	58 53.7	57.889	14.0	33.5	34 7 34.344	32 37 54.198	- 5 29.813	- 0.500	- 0.093	+ 1.644	25.436	
	16 6 26.2	48.449	34.5	15.0	31 8 14.052	32 37 54.198						
7	34 50.2	44.961	34.5	15.0	46 10 1.683	32 33 2.761	+ 9 21.101	- 0.250	+ 0.165	+ 0.135	23.972	
	39 28.1	61.022	14.5	34.0	18 36 3.839	32 33 2.761						
9	44 41.6	62.611	37.0	17.5	31 4 52.709	32 24 3.637	+ 8 17.724	+ 1.875	+ 0.141	0.000	23.377	
	46 10.3	48.365	14.0	33.0	33 43 14.565	32 24 3.637						
10	51 49.1	59.385	13.0	33.0	54 36 32.748	32 39 37.768	- 7 12.984	- 0.125	- 0.137	+ 0.029	24.551	
	55 39.7	46.992	33.0	13.5	10 42 42.789	32 39 37.768						
11	59 4.3	54.140	40.0	20.0	24 57 51.988	32 31 15.945	+ 1 10.539	- 1.500	+ 0.030	+ 0.094	25.098	
	17 6 52.1	52.121	17.0	37.0	40 4 39.903	32 31 15.945						
12	18 18.2	48.894	12.0	31.0	9 39 36.497	32 27 23.088	+ 4 57.356	+ 1.750	+ 0.100	+ 0.320	22.614	
	19 9.2	57.405	35.0	15.0	55 15 19.080	32 27 23.088						
13	25 4.9	59.570	18.0	35.0	48 3 41.664	32 40 28.975	- 8 2.840	- 0.625	- 0.144	- 0.793	24.572	
	33 10.0	45.750	31.5	19.0	19 17 16.287	32 40 28.975						
	$\Delta t = + 11 32$											

Observaciones de los pares—Continuación.

JULIO 12 DE 1894.

Pares.	Cronómetro.	Micrómetro.	Nivel.		δ	$\frac{1}{2}(\delta + \delta')$	Correcciones.				Latitud $32^{\circ} 32'$ +	
			N	S			m.	n.	r.	r. m.		
	<i>h. m. s.</i>				<i>° ' "</i>	<i>° ' "</i>	<i>" "</i>					
6	15 58 34.0	58.000	16.5	32.5	34 7 36.221							
	16 6 2.0	48.432	34.0	18 0	31 8 11.612	32 37 53.917	-5 34.285	-0.750	-0.093	+3.250	22.032	
7	16 8.1	59.180	34.0	13.0	11 42 51.104							
	21 8.5	46.075	20.5	41.5	53 6 47.851	32 24 49.478	+7 37.860	-4.750	+0.126	+0.463	23.177	
8	34 2.0	45.424	11.5	32.5	46 10 4.053							
	39 3.6	61.390	21.0	0.0	18 36 5.538	32 23 4.795	+9 24.804	-5.750	+0.160	+0.280	24.289	
9	44 17.0	71.768	36.5	15.0	31 4 52.787							
	46 0.0	47.648	9.5	30.5	33 43 16.771	32 24 4.779	+8 13.322	+2.875	+0.139	+1.573	22.688	
10	50 44.0	58.330	13.0	34.5	54 36 35.359							
	55 54.0	46.063	43.0	26.5	10 42 44.259	32 39 39.809	-7 8.233	-5.500	-0.144	+0.500	26.432	
11	58 52.0	54.740	34.5	13.5	24 57 54.015							
	6 22.0	52.897	1.0	20.5	40 4 42.409	32 31 18.212	+1 4.390	-2.125	+0.127	+0.045	24.899	

$\Delta t = +11 44.0$

Discusión de las observaciones anteriores.

Pares.	Estrellas.	Latitud $32^{\circ} 32'$ +	Promedio.	Δ	Δ^2
1	320 Safford.....	25.112	25.875	0.763	0.582169
	329 "	24.950		0.925	0.855625
		27.564		1.689	2.852731
2	341 "	26.856	26.160	0.696	0.484416
	357 "	24.998		1.162	1.350244
		26.626		0.466	0.217156
3	5047 B. A. C.....	24.813	24.637	0.176	0.030976
	407 Safford.....	24.460		0.177	0.031329
5	434 "	23.423			
	447 "				
6	506 "	25.436	23.734	1.702	1.825804
	521 "	22.032		1.702	1.825804
7	545 "	24.809	23.993	0.816	0.665856
	558 "	23.177		0.816	0.665856
8	585 "	25.271	24.511	0.760	0.577600
	585 "	23.972		0.539	0.290521
		24.289		0.222	0.049284
9	604 "	25.211	23.759	1.452	2.196324
	608 "	23.377		0.382	0.145924
		22.688		1.071	1.147041

Discusión de las observaciones anteriores—Continuación.

Pares.	Estrellas.	Latitud $32^{\circ} 32'$ +	Promedio.	Δ	Δ^2
10	622 Safford.....	24.771	25.251	0.480	0.230400
	633 "	24.551		0.700	0.490000
		26.432		1.181	1.394761
11	637 "	25.098	24.998	0.100	0.010000
	655 "	24.899		0.099	0.009801
12	5940 B. A. C.....	26.557	24.585	1.972	3.888784
	679 Safford.....	22.614		1.971	3.884841
13	690 "	25.605	25.089	0.516	0.266256
	705 "	24.573		0.516	0.266256
14	711 "	24.321			
	725 "				
					26.235749

$n = 27; m = 11; n - m = 16; q = 0.6745$

$$e = 0.6745 \sqrt{\frac{26.235749}{16}} = \pm 0.86''$$

Resultado final.

Pares.	$\epsilon^2 \delta$	$\epsilon^2 \delta'$	n	ρ	φ	$\rho \cdot \varphi$	Δ	Δ^2
1	0.078	0.078	3	0.87	25.875	22.51125	0.104	0.218816
2	0.078	0.078	3	0.87	26.160	22.75920	1.389	1.929321
3	0.490	0.078	2	0.48	24.637	11.82576	0.134	0.017956
5	0.078	0.490	1	0.28	23.423	6.53844	1.348	1.817104
6	0.078	0.078	2	0.61	23.734	14.47774	1.037	1.075369
7	0.078	0.078	2	0.61	23.993	14.63573	0.778	0.605284
8	0.185	0.078	3	0.80	24.511	19.60880	0.260	0.067600
9	0.078	0.078	3	0.87	23.759	20.67033	1.012	1.024144
10	0.078	0.185	3	0.80	25.251	20.30080	0.480	0.230400
11	0.078	0.185	2	0.57	24.998	14.24886	0.227	0.051529
12	0.490	0.185	2	0.46	24.585	11.30910	0.186	0.034546
13	0.078	0.185	2	0.57	25.089	14.30073	0.218	0.047324
14	0.078	0.185	1	0.31	24.321	7.53951	0.450	0.202500
				8.10		300.64625		8.322093

$$[\rho] = 8.10$$

$$[\rho \cdot \varphi] = 300.646$$

$$[\Delta^2] = 8.322$$

$$\epsilon \varphi = + 0.19''$$

Latitud del punto de observación..... $32^{\circ} 32'$ 24.771''

Reducción al Monumento II + 0.487

Latitud del Monumento II (Tijuana)..... $32^{\circ} 32'$ 25.258''

± 0.19