

	Epoca e Osculação	equin.	M	ω	Ω	i
BJ						
1896	1892 Dec. 8.5	1892	107° 15' 0"	107° 19' 59" *	136° 9' 6"	4° 36' 4"
97	1893 Nov 16.5	1890	271 35 48	354 49 11 *	135 29 31	33 2
98	6.5	1900	277 33 39	347 34 11 *	50 3	33 27
1901	1897 Mar 11.5	"	183 2 29	236 38 53	134 21 52	38 18
1902		"	185 10 37	234 36 57	18 24	4
1904	1897 Mar. 11.5	1900	185 30 14	18 32	17 18	0
1905	1903 Jan 9.5	"	95 20 3	236 29 53	15 23	37 56
1906	1904 Feb 13.5	"	144 34 18	238 13 18	15 20	56
1907	1905 Abr 28.5	1910	199 13 11	239 37 7	22 17	48
1908	1906 Jun 2.5	"	249 23 32	240 23 00	21 12	49
1910	1908 Set 19.5	"	356 5 55	27 12	20 57	54
KP 1913	1913 Apr 26.5	"	216 55 14	234 7 36	19 47	56
	Osculação	Epoca e equinócio	M	ω	Ω	i
16	1913 Abr 26	1925 Jan 0.5	41° 641	234° 142	134° 523	4° 631
18	1918 Jan 10	"	76.332	194. 453	132. 170	605
20	1920 Mar 20	"	83.407	190. 320	132. 023	630
25	1922 Jun 18	" 1.0	85.529	191. 470	132. 021	630
26	1923 Mar 11.5					
32	? [1932 Nov. 22]*	"	83.862	190.583	132. 161	4.637
37	? [1937 Jun 15]*	"	82.269	191.049	079	641
38	1938 Fev. 1	1950	339.469	184.487	298	642
43	1943 Mar 23	"	239.682	163.324	131. 537	608
510	1948 Ago 7	"	142.048	164.272	507	626
	1952 Oct 26	"	"	"	"	"
	1965 1957 Jun 11	"	187.821	036	476	628
	1966 1947 Jan 15	"	59.014	163. 717	524	626
	1980 1980 Dez 27	"	237.16658	146.13307	130.88807	66269
	1993 1983 Ser. 23	"	12.38321	139. 83259	.14594	65879
	1989 1989 Oct. 1	"	300.63582	6. 46568	.13621	66080

CHICAGO

 $\# = 7.48$ $\delta = 155.82 \pm 12.0$ desc. 23.VIII.1892 M. Wolf, Heidelberg BJ 1895
 $= 1892 L$ $alt = 0,064$

φ	μ	$\log a$	Autorität.	
30 49' 59" 0.067466.734		0.587291	A. Berberich	* confusões of original! (BA 10.181) EL
0° 12' 44" 00370457.247		.593237	"	AN 134.167 EL
25 14.00734456.3980		.775	"	AN 139.221 EL
55 12.01606460.021		.591486	"	
50 24.01466459.742		.591661	"	AN 149.123 EL
48 44.01417 5028		8123	"	
58 58.01714 1094		.5920603	"	
59 2.01717 458.8136		248	"	
58 22.01698 64543		3530	"	
57 29.01672 6320		3615	"	
54 50.01595 6230		3672	"	
51 26 459.5144		.591805	"	sp. St. } são iguais
431.04242 948				no' mudou
				o equinócio.
0° 857.01496 459.514		0.59180	desde 1915	
1.962.03424 454.265		0.59513	A. Berberich.	sp. St.
2.377.04147 459.518		0.59180	"	St.
431.04242 948		53	"	St. KP 1921
			N. Boëwa (AIL) BV St $\frac{z}{2}, \frac{t}{2}$	obs. de 1921 a 1924. KP 1926
2.462.04296 .876		3.9046	(Bojewa)	St $\frac{z}{2}, \frac{t}{2}$ em 1927, 1928, 1929, 1930, 1931 KP's
407.04200 460.105		3.9033	W. Hase (AIL)	St $\frac{z}{2}, \frac{t}{2}$ (OB).
551.04509 456.246		9253	AIL.	BV Opp. 1926-1932
3.169.05528 463.807		8825	G. Stracke	St $\frac{z}{2}$ [cf. MP 1947 calc. em Leningrado].
282.05725 462.929		8874	ITA (S).	
" " "		"	M. E. Tobemux (S)	(correção de um erro na época?)
160.05512 464.527		8785	ITA (S).	
267.05699 463.285		8854	ITA BV Opp. 1950-1960.	
$e = 0.0506727$ 465.24081		8745314	OB (padron. 1980).	
.0434333 464.90288		64087	F. B. Yamura BV. Opp. 1901-1980	
.0406523 5.23552		45606	E. Goffin BV 61 Opp. 1892-1985 $\delta = 0^{\circ} 8$ MPC	