

Comet Machholz 1978L

The following improved parabolic orbit, by S. Nakano, are from 25 observations 1978 September 14 to November 20. The mean residuals is 1".45.

$$\begin{array}{llll} T = & 1978 \text{ Aug. } 13.6473 & \text{ET} & \omega = 224^{\circ}.7469 \\ & & & \Omega = 289.9837 \\ q = & 1.771424 & \text{AU} & i = 130.6347 \end{array} \left. \vphantom{\begin{array}{l} T \\ q \end{array}} \right\} 1950.0$$

The following residuals in seconds of arc are from the above elements:

Date/ 1978	$\Delta \alpha / \cos \delta$	$\Delta \delta$	Observer
Sept. 14.330 UT	+ 0".6	+ 0".4	Schuster
15.839	- 1.1	- 1.1	Perth obs.
15.859	+ 0.9	+ 1.6	"
16.798	- 2.2	+ 1.1	Utara
16.819	- 1.1	+ 0.5	Seki
16.840	- 1.5	- 2.1	Perth obs.
16.852	- 2.8	- 0.7	"
17.805	- 1.7	+ 2.3	Urata
18.713	+ 1.3	- 1.5	Perth obs.
19.718	- 0.4	- 2.2	"
19.727	- 0.3	+ 0.6	"
20.801	+ 2.5	+ 2.0	"
20.808	(+ 3.7	+ 1.9)	"
21.739	- 1.7	- 1.6	"
21.755	+ 2.5	0.0	"
22.767	+ 0.4	- 0.7	"
22.785	+ 1.4	+ 1.1	"
23.770	(+ 4.6	- 0.2)	Herald
26.760	- 0.1	+ 0.2	Perth obs.
30.769	+ 1.3	+ 0.2	Herald
30.783	- 0.5	+ 1.2	Seki
30.818	(- 0.4	+ 4.4)	"
Oct. 2.788	(- 4.1	+ 6.8)	Natori
2.804	+ 1.4	+ 2.0	Seki
3.507	+ 0.3	+ 0.4	Giclas
4.814	+ 0.1	+ 0.8	Perth obs.
5.503	+ 1.8	- 3.1	Giclas
12.763	- 0.7	- 2.4	Herald
Nov. 8.483	(+ 2.0	- 6.6)	"
20.496	+ 0.7	+ 1.7	"

( ) ..... Rejected obs.