

ELEMENTS OF COMET 1929 d (WILK),

BY FRANK E. SEAGRAVE.

The following elliptic elements of Comet 1929d (WILK) are based upon three observations by VAN BIESBROECK at the Yerkes Observatory on Dec. 22, 1929, Jan. 8 and Jan. 29, 1930.

ELEMENTS

E = 1930 Jan. 29.0208	log e = 9.9996041
M = 0° 0' 1".19	log a = 2.8668766
ω = 157° 28' 11".21	log q = 9.8264908
π = 336° 27' 21".65 or 21° 30' 59".23	
Ω = 178° 59' 10".44	
i = 124° 31' 32".91 or 55° 28' 27".09	

CONSTANTS

x = r(9.9999539) sin (270° 34' 28".64 + u)
y = r(9.2848957) sin (4° 49' 53".96 + u)
z = r(9.9918291) sin (0° 24' 39".87 + u)

The first values of π and i hold if the motion of the comet is direct and the second if the motion is retrograde.

Additional data for the three positions is given in the following table:

	Heliocentric Positions			log Δ	True Anomalies
	λ ° ' "	β ° ' "	log r		
1929 Dec. 22	81 15 45.68	+55 13 47.93	9.9663006	9.6702540	296 55 32.94
1930 Jan. 8	37 59 34.15	+42 27 21.23	9.8629303	9.9747572	327 30 45.06
1930 Jan. 29	2 16 54.36	+ 4 46 36.00	9.8368469	0.1744912	16 43 45.09

This orbit is of especial interest because of the size of log a. Apparently we have here a comet belonging to the solar system with a mean distance from the Sun

of 736 astronomical units, or approximately twenty times the distance of the new Planet X.

North Scituate, R. I.,
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