

# ASTROMETRIC POSITIONS OF COMET WILSON (1986I)

(Letter to the Editor)

S. C. JOSHI, J. B. SRIVASTAVA, T. D. PADALIA, and C. D. KANDPAL

*Uttar Pradesh State Observatory, Manora Peak, Naini Tal, India*

(Received 14 September, 1987)

**Abstract.** Positions of comet Wilson have been measured from the photographic plates taken at the Cassegrain focus of the 104-cm reflector of Uttar Pradesh State Observatory, Naini Tal.

## 1. Introduction

The discovery of Comet Wilson (1986I) was reported in IAU Circular No. 4241. Subsequent IAU Circular Nos. 4255 and 4364 gave the improved orbital elements of the comet. The magnitude estimates given in circulars 4244 and 4364 showed that immediately after perihelion passage the magnitude of the comet was going to be quite bright ( $\approx 3^m.5$ ). The comet was observed photographically for obtaining precise orbital positions during few nights, depending on the visibility conditions at the location of the observatory.

## 2. Observations

Photographs of comet Wilson in its post-perihelion phase have been obtained on three nights with the 104-cm reflector at the Uttar Pradesh State Observatory Naini Tal. At the Cassegrain focus of the telescope, the plate scale is  $15 \text{ arc sec mm}^{-1}$  covering a field of  $41 \text{ arc min}^2$ . The details of the observations and exposure times have been given in Table I.

TABLE I  
Details of observations of Comet Wilson

Date UT 1987	Exposure start		Exposure end		Mid-instant of the exposure		Emulsion
	hr	min	hr	min	hr	min	
May 27	14	51.5	15	01.7	14	56.6	103a-O GG 385
June 03	14	45.3	14	59.5	14	52.4	103a-O
June 03	15	05.7	15	20.7	15	13.2	103a-O
June 04	14	38.8	14	53.8	14	46.3	103a-O

TABLE II  
Measured coordinates of comet Wilson

Date		Mid-instant		Rights Ascension			Declination		
UT		of exposure UT							
1987	May 27	14 <sup>h</sup>	56 <sup>m</sup> .6	08 <sup>h</sup>	29 <sup>m</sup>	11 <sup>s</sup> .6	- 20°	50'	42".8
	June 3	14	52.4	08	37	47.9	- 15	12	11.2
	June 3	15	13.2	08	37	47.4	- 15	12	47.3
	June 4	14	46.3	08	38	51.2	- 14	33	48.8

### 3. Procedure

Four plates, which contained three or more than three reference stars alongwith the comet image were measured for determining the positions of the comet. For measurement of the rectangular  $x$  and  $y$  coordinates of the reference stars and the comet on the plate, we have used the C. Reidel X coordinate measuring machine at the Observatory. The X screw has a least count of 0.0001 cm. For  $y$  measurements the plate is turned 90° on the carriage and the same screw is used for measuring  $y$ . The procedures used for measuring the plates, and the subsequent reduction were the same as described by us in an earlier paper (Joshi *et al.*, 1987).

The coordinates of the comet determined by us have been given in Table II. The accuracy of these measurements is estimated to be about  $\pm 2$  arc sec.

### Acknowledgements

Thanks are due to B. C. Kabdwal, Project Assistant under a grant from the Indian Halley Watch Programme.

### References

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