ASSOCIATION OF LUNAR AND PLANETARY OBSERVERS
Comets Section January 11, 1968

Comet Ikeya-Seki 1967n

The fourteenth comet of 1967 was discovered in the morning sky by Ikeya and Seki on December 28th, apparently within minutes of each other. Tsutomu Seki has recently been sweeping with 5-inch 20 power binoculars, and he also found Comet 1966d with these. They give a 3° field.

This comet is going to be within binocular range and circumpolar for several months, according to a preliminary orbit by Brian Marsden. He used seven positions from December 29th to January 6th. The elements are: Perihelion February 26 at 1.69 astronomical units; Argument of perihelion 72°; Ascending node 255°; inclination 130°.

From these elements a comet orbit model can be constructed with instructions by Steve Larson in the March-April, 1965, Strolling Astronomer

The following predictions are in 1950 coordinates for 0^h UT.

					Δ	r	Mag.
Jan.	10	$16^h\ 42^m.0$	+1°	40'			
	15	16 45 .9	+3	47			
	25	16 53 .6	+8	53	2.02	1.74	7.9
	30	16 57 .4	+12	00			
Feb.	4	17 01 .0	+15	33			7.6
	9	17 04 .6	+19	38			
	14	17 08 .0	+24	18	1.60	1.69	7.3
	19	17 11 .1	+29	38			
	24	17 14 .0	+35	39	1.44	1.69	7.1
	29	17 16 .4	+42	21			

Edgar Everhart, Mansfield Center, Conn., picked up the comet on Jan 5.45 UT. He writes that its magnitude was about 9.5 and looked like a small globular cluster, but "much harder to see than M10 and M12." "Hats off to them," the veteran comet-seeker Everhart says. "This was not an easy one to discover so close to the bright twilight horizon."

The next morning John E. Bortle saw the comet from Mount Vernon, New York. It was at $16^h\ 39^m.2$, +00° 19' and had a diameter of 2'. By using comparison stars from a nearby AAVSO chart field, Bortle obtained a magnitude of 8.8. He saw it as "diffuse with little condensation."

George Van Biesbroeck, Tucson, Arizona, estimated a total magnitude of 9.1 on the 7th. He reported a coma diameter of 30" and an unsharp nucleus, 2" across.

Because of its great perihelion distance, Comet Ikeya-Seki is not expected to become brighter than 7th magnitude. However, it is an intrinsically very bright comet with an absolute magnitude of 4. Marsden computed the brightness predictions from $m = 4.0 + 5 \log \Delta + 10 \log r$.

Magnitude estimates can be made with the Smithsonian catalog, but several estimates should be averaged because of the catalog's scatter at fainter magnitudes. Some AAVSO chart fields that will be of value for total and nucleus magnitudes are SS Her, S Her, Z Oph, and RS Her. Between Feb. 14th and 19th the comet will be close to RT Her and CX Her. Order "b" and "d" charts for 13¢ each from AAVSO, 187 Concord Ave., Cambridge, Mass. 02138. Enclose a stamped return envelope.

The comet will pass the Keystone of Hercules Feb. 24th, and it will be near M92 on the 29th.

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