

Observations of Comets in 1962 and 1963

The following observations of Comet Humason 1961(e), Comet Ikeya 1963(a), Comet Allcock 1963(b) and Comet Pereyra 1963(c) were made by Members of the Comet and Meteor Section of the Society under the direction of Mr. S. C. Venter. The observers were Mr. J. C. Bennett who used a 5-inch f/5 refractor with a magnification of 21 and two pairs of binoculars 10 x 40 and 10 x 60; Mr. S. C. Venter who used a refractor of $2\frac{3}{4}$ -inch aperture having powers of x 20, x 40, x 80 and 120 and 7 x 50 binoculars; and Mr. L. L. van Zyl who used 7 x 50 binoculars. The observed positions given by Mr. Bennett are from plots made on B.D. or CoD charts so that they refer to an equinox of 1855 for declinations north of -20° and to 1875 for declinations south of this.

Obs: J. C. Bennett

Humason 1961(e)

Date	Time (U.T.)	α	δ	Est Mag	Remarks
1962	h m	h m	o		
Jun 11	03 30	00 01.1	+05 13	9.5	Very faint. Difficult observation.
Jul 18	03 30	23 35.3	-01 53	8.5	Diffuse coma about 3' in diameter. Moonlight.
25	20 48	23 21.3	-04 46	8.0	
26	20 30	23 19.3	-05 12		No change.
27	21 10	23 16.9	-05 42		Tail $\pm \frac{1}{4}^\circ$.
28	02 00			8.0	Coma appears fan-shaped.
29	20 10	23 12.4	-06 34	8.2	Faint broad tail about 0.8° WNW. Slightly curved.
30				8.2	Conditions poor-smog.
Aug 2	19 53	23 02.2	-08 33	8.0	Central condensation about 2' in diameter. Fan-shaped coma; very faint broad tail.
3	21 13	22 59.4	-09 08		2° tail seen with x 21.
7	21 36	12 47.6	-11 22		
8	21 15	12 44.3	-11 57		
10	20 32	12 37.65	-13 07		Cloud and moonlight.
Oct 23	20 00	19 38.2	-36 27	7.0	Diffuse object. Faint tail of about 1° suspected.
29	18 00	18 32.8	-36 38	7.2	More condensed coma. No tail seen.

Date	Time (U.T.)	α	δ	Est Mag	Remarks
1962	h m	h m	o ,		
Nov 5	17 45			6.8	Appears brighter and of a greater area than on 29th.
27	18 10	18 21.8	-37 40	8.5	Difficult observation on account of street lights.
1963					
Apr 4	20 21	14 06.9	-54 48	8.0	
30	20 55	13 55	-53 54	8.5	
May 11	20 18	13 02.6	-48 02	8.5	Difficult. Moonlight.
12	20 00	12 58.6	-47 26	8.5	Difficult. Moonlight.
23	18 45	12 25.7	-40 53	9.0	Conditions fairly good.
Jun 13	20 40	11 55.9	-30 22	9.5	Conditions good.
15	17 15	11 54.3	-29 44	9.5	Very faint object.
Ikeya 1963(a)					
1963					
Jan 23	01 40	13 55.2	-36 21	7.8	Diffuse patch, roughly circular like a faint globular cluster 4' in diameter. No tail visible.
28	21 40	13 54.9	-42 15	6.5	Conditions good.
Feb 1	22 25	13 53.5	-48 25	5.5	Diameter $\pm 10'$. Centrally condensed. Still no sign of tail.
5	20 21	13 49.1	-57 21	4.9	No tail. Moonlight.
9	21 05	13 31.3	-72 04	4.2	Just visible to naked eye in light of full moon.
11	20 58	12 41.0	-82 09	3.8	Brighter than α Cen and same total area. Very faint nucleus. No tail.
12	19 57	09 58.5	-86 44	3.6	Straight thin faint tail = $\pm 1^\circ$ NE. Seen with averted vision in telescope.
14	20 25	03 04.0	-77 46	3.2	(= γ Hvi) Faint tail = 2° NE.
18	19 17	02 21.5	-50 45	3.5	Tail = $\pm 3^\circ$ NE. Seen in telescope and x 60 binoc.

Allcock 1963(b)

Date	Time (U.T.)	α	δ	Est Mag	Remarks
1963	h m	h m	o ,		
May 15	19 15	14 27.5	+46 05	6.5	Observation difficult on account of low altitude of object.
16	20 15	14 19.4	+44 46	6.0	Like a small globular cluster no tail seen. Conditions fairly good.
19	20 47	13 58.0	+40 45	6.2	
23	19 55	13 33.8	+35 01	6.5	Centrally condensed.
28	19 00			5.2	Change noted. Comet appears stellar with faint coma.
29	20 52	13 05.8	+26 05	5.0	Conditions poor - moonlight and smog. Nucleus visible.
31	20 00			4.7	
Jun 1	20 00			4.8	
2	20 55	21 51.75	+20 24	4.8	No tail visible.
9	21 21	12 34.05	+11 24	5.5	Considerable fading since last observation.
15	17 55	12 23.9	+05 05	5.6	Diffuse. No tail seen.
Jul 10	16 20	12 08.6	-12 58	8.0	
13	19 25	12 08.6	-14 17	8.5	Coma slightly elongated.
17	17 33	12 09.0	-16 27	8.5	
19	16 48	12 09.3	-17 19	9.0	

Pereyra 1963(e)

1963					
Aug 17	02 55	09 29.2	-04 56	6.0	Head almost stellar. Only $\frac{1}{2}^\circ$ tail seen in binoculars. Conditions difficult. Smog.
19	03 06	09 28.5	-05 45	6.0	Faint tail 3° W. Slight smog.
27	02 48	09 26.4	-08 42	7.0	Faint tail $\pm 2^\circ$ W.
Oct 2	02 37	09 24.9	-10 24	8.0	No tail seen - moonlight.
8	02 40	09 22.6	-12 21	8.5	Difficult - moonlight.
15	02 40	09 19.4	-14 39	9.2	Very faint object, $\pm 3'$ diameter.

Obs: S. C. Venter

Humason 1961(e)

Date	Time (U.T.)	Est Mag	Remarks
1962			
Jun 12	03 30	9.5	Very diffuse and extended with slight nucleus flashing up now and then. x 20 Seeing good.
Jul 25	20 30	7.4	x 50 binoculars. Seeing good.
26	20 30	7.4	x 50 binoculars. Seeing good.
27	21 00	7.5	Central condensation. x 50 binoc. Seeing good.
28	21 00	7.0	x 50 binoculars. Seeing good.
30	22 15	7.5	Central condensation. x 20. Seeing fair. Coma so tenuous that it was not visible through the telescope, although well seen through binoculars.
Aug 1	20 00	7.1	x 50 binoculars.
2	20 00	6.8	x 50 binoculars and x 20 x 40. Seeing poor-low altitude. Coma appears fan-shaped with central condensation $\pm 1'$, the latter displaced to SE and coma widening out to NW. Coma = $\pm 4'$. No tail seen.
18	18 45	6.4	Very difficult to estimate.
20	18 00	5.4	Whole comet. Head = $\pm 3'$. Central condensation towards SE. Sharp nucleus right on SE edge of coma = 9m.5. Tail = $1\frac{1}{2}^\circ$. x 20 x 40 and naked eye.
21	19 00	5.9 9.0	Head Coma = $3'$. Tail = $25'$. There appears to be a knot of denser material in tail about $8'$ from nucleus. Latter well seen = $\pm 9m.0$. Central condensation = $1\frac{1}{2}'$. x 20 x 40.
22	20 30	5.8	
25	19 00	5.9	
28	20 30	5.9	
29	18 00	10.6	Nucleus. Coma = $4'$. Central condensation = $1'$. Tail very faint x 20 x 40. Seeing good.
30	18 30	6.3	Whole. x 50 binoculars. Seeing good.
Sep 1	17 30	11.0	Nucleus. Tail = 3° . Coma = $2'$. Central condensation $\frac{2}{3}^\circ$
3	18 00	6.1	Coma.
5	18 00	6.2	Coma. Central condensation = $2'$.
		11.3	Nucleus. Tail = $\pm 4^\circ$.

Date	Time (U.T.)	Est Mag	Remarks
1962			
Sep 17	18 30	6.8	Head. Tail = $2\frac{1}{2}''$. Seeing good. x 50 binoc.
20	18 30	6.7	Head. x 50 binoc. Seeing good.
23	18 30	6.8	Head. x 50 binoc. Seeing good.
26	18 30	6.8	Head.
		11.0	Nucleus. Seeing good. x 50 binoc. x 40.
Oct 8	18 30	6.6	Head. x 50. Moonlight.
16	18 00		Head. 11m.0 brighter than NGC 6723.
17	18 00	7.2	Whole. Tail = $10''$. Head = $2''$. Central condensation about $\frac{1}{2}$ diameter of coma. After long intervals a nucleus flashed up, sometimes 11m.0, the next moment about 11m.5. Seeing fair. x 50 binoc. x 20 x 40.
23	18 00	6.5	Head. Seeing poor.
		6.9	Central condensation. x 50 binoculars.
		10.5	Nucleus. x 40.
25	18 00	6.6	Head. Tail = $1\frac{1}{2}''$. x 50 binoculars.
		6.7	Central condensation. Seeing good.
Nov 1	18 00	6.3	Head. x 50 binoculars.
		6.5	Central condensation. Seeing good.
20	18 00	7.0	Head. x 50 binoculars. Seeing fair.
24	18 00	7.0	Head. Tail = $20''$. Coma $1\frac{1}{2}''$. Central condensation = $1''$. Nucleus appears to flash up now and then = 10m.7. x 50 binoculars. x 20 x 40. Seeing fair.
26	18 00	7.0	Head. x 50 binoculars.
1963			
Feb 5	02 30	7.3	Head. No tail visible; neither a central condensation. x 50 binoculars. x 20.
6	02 30	8.0	Head. Tail = $7''$. Slight central condensation. Seeing good. x 50 binoculars. x 20 x 40.
28	03 00	8.0	Head. Very faint coma. The central condensation gives about all the light. No tail seen. x 50 binoculars..
Mar 2	02 30	7.2	Head. No tail. x 50.
6	03 00	7.2	Head. No tail. x 50
18	03 00	7.2	Head. No tail. x 50
26	02 00	7.5	Head.
27	02 30	8.0	Head. Coma = $1\frac{1}{2}''$. Central condensation = $1''$. No tail. Seeing poor. x 50. x 20 x 40.
30	03 00	7.0	Head. x 50. Very difficult.

Date	Time (U.T.)	Est Mag	Remarks
1963			
Apr 1	03 00	7.0	Head. Central condensation = $\frac{2}{3}'$, very marked but coma very faint. Latter not visible by x 40. Nucleus flashes up now and then = 9m.5.
			Ikeya 1963(a)
1963			
Jan 29	02 30	5.7	Coma = 5'. Central condensation half of this. Looks like an irregular globular cluster. No tail. Neither a nucleus. x 40 Seeing good.
30	02 30	5.7	Coma. No tail. Seeing good. x 50 binoc.
31	02 15	5.9	Coma. Central condensation about $\frac{3}{4}$ area of coma. Steep brightening to centre. Coma = $\pm 4'$. No tail.
Feb 5	02 30	5.0	Coma = 7'. Central condensation about half of this. Steep grade increase in brightness of central condensation. No tail or nucleus. Seeing good. x 50 binoculars. x 20 x 80.
6	02 00	5.0	Coma = 6'. No tail. x 50. x 40.
7	02 30	5.0	Coma. x 50.
8	02 30	4.6	Coma. x 50. Moonlight.
9	20 15	4.2	Coma. About 0m.2 fainter than α Cen. Central condensation very marked. Coma about invisible in moonlight. A nucleus flashing up now and then in NNW side a central condensation (= 10m.0). No tail. x 50. x 20 x 40.
11	02 00	4.0	Coma
		4.3	Central condensation. Slight suspicion of tail. x 50.
12	02 30	3.9	Coma.
		4.2	Central condensation = $2\frac{1}{2}'$. No tail. No nucleus. Seeing good. x 50. x 20 x 120
	19 00	3.6	Coma = 9'. No tail.
		3.8	Central condensation = 5'. Central core of central condensation = 1'. Steep gradient in increase of brightness of central condensation to central core. Core about 4 times as bright as periphery of central condensation.

Date	Time (U.T.)	Est Mag	Remarks
1963			
Feb 13	20 00	3.4 3.8	Head. Central condensation. x 50.
14	20 30	3.5 3.7	Head. Central condensation. x 50.
16	20 30	3.5 3.8	Head. Central condensation. x 50
17	18 30	3.3 3.8	Head = 10'. Tail 5°. Central condensation. No sharp border between coma and central condensation, but an immediate steep gradient of increase in brightness to a central condensation of about $\frac{1}{4}$ diameter of coma. Tail about $\frac{1}{4}$ diameter of head where it leaves latter. Coma has peculiar resemblance to a globular cluster in that it does not appear as a diffuse cloud but as hundreds of separate spots. No tail visible by naked eye.
18	18 00	3.5 3.7	Head. Tail = 5°. Not Central condensation. visible by naked eye.
	20 00		Head = 10'. Tail very faint. x 20 x 40 x 80.
20	18 00	3.4	Head.
21	18 00	3.5	Head.
22	20 00	3.5	Head.
24	18 00	3.7 3.9	Head. Tail = 5° - not visible Central condensation: by naked eye.
25	18 00	3.5 3.7	Head. Tail = $3\frac{1}{2}^\circ$. Not Central condensation. visible by naked eye.
26	18 00	3.5 3.7	Head. Tail visible by naked Central condensation. eye for about 9°. Coma = 6'. Central condensation $1\frac{1}{2}'$. x 20 Seeing good.
27	18 00	3.6 3.7	Head. Tail = 7°. Central condensation.
28	18 00	3.6 3.7	Head. Tail = 4°. Central condensation.
Mar 2	18 30	3.7 3.9	Head. Central condensation. x 50.
3	18 30	3.7 4.2	Head Central condensation. x 50.
6	18 30	3.7	Head.
9	18 30	5.0	Head. Very uncertain.
12	18 00	4.5	Head.
16	18 00	4.6	Head.
20	18 00	4.8	Head. = $1\frac{1}{2}'$. Central condensation 1'. x 40 Difficult in twilight.

Allcock 1963(b)

Date	Time (U.T.)	Est Mag	Remarks
1963			
May 16	18 30	6.7	x 50 binoculars. Seeing good.
22	19 30	6.0	x 50 binoculars. Seeing good.
24	18 50	6.0	x 50 binoculars. Seeing good.
Jun 1	18 00	4.7	Coma
		5.5	Central condensation. x 50 binoc. Seeing good.
2	18 15	4.7	Coma. x 50 binoculars. Seeing good.
3	18 30	4.7	Coma. x 50 binoculars. Seeing fair.
4	18 30	5.1	Coma. x 50 binoculars. Seeing fair.
8		5.2	Coma.
		7.0	Central condensation. x 50 binoc. Seeing good.
9	18 00	5.2	Coma.
		7.0	Central condensation.
10	18 00	5.5	Coma.
		7.0	Central condensation.
13	19 00	5.5	Coma.
15	18 30	6.0	Coma.
		7.5	Central condensation.
17	18 00	6.2	Coma.
		7.5	Central condensation.
20	18 00	7.0	Coma.
21	18 00	7.0	Coma.
24	19 00	7.0	Coma.
		7.8	Central condensation.
Jul 11	19 30	8.8	Coma.
13	18 30	8.8	Coma.
		10.2	Central condensation. x 20. Seeing fair.
19	18 30	8.9	Coma.
		10.3	Central condensation. x 20. Seeing fair.
22	18 30	8.8	Coma.
		10.3	Central condensation. x 20. Seeing fair.
24	18 30	9.2	Coma.
		10.4	Central condensation. x 20. Seeing fair.

Pereyra 1963(e)

Date	Time (U.T.)	Est Mag	Remarks
1963			
Sep 17	03 00	6.0	Head small and appears irregular. Might be that only central condensation was visible at this low altitude. No sign of a nucleus. Tail about 3° , fanning out slightly. Seeing good. x 50. x 20.
18	03 00	6.0	Head starlike. Tail $\pm 6^\circ$. Narrow. x 50.
19	03 00	6.5	Head. Coma irregular in shape. Central condensation $\frac{2}{3}$ of whole head. Tail $\pm 4^\circ$. No nucleus. Seeing fair. x 50. x 20 x 40 x 80.
20	03 00	6.5	Head. x 50.
22	03 00	6.7	Head.
		7.0	Central condensation. About $\frac{7}{10}$ area of whole head. Coma fans out to NW. Very concentrated central condensation on extreme SW edge of coma. Tail fans out slightly to about 1° width length 5° . Appears homogeneous.
23	03 00	6.8	Head. Tail = 6° . x 50.
24	03 00	7.2	Head. Tail about invisible, followed for about $1\frac{1}{2}^\circ$. x 50
25	03 00	7.3	Head. Central condensation not so conspicuous anymore. Tail about 1° , but very, very faint. Coma and central condensation very irregular in shape. Saw a flickering of a nucleus twice = $\pm 10m$. Gradient of central condensation not as sharp as last week, gradually becoming brighter, but remains diffuse as well. About half the size of the coma. Nucleus when supposed to be seen was on the western edge of coma, not too sure about nucleus at all.
27	03 00	7.5	Tail $\frac{1}{2}^\circ$, very faint. x 50.
28	03 00	7.6	Tail about invisible. x 50.
29	03 00	7.6	Coma = $1'$. central condensation about $\frac{1}{2}'$. Both appear very irregular in shape. Tail about 1° . Very faint. No nucleus. x 50. x 20 x 40 x 80.
Oct 1	03 00	7.7	Head. Tail = 4° . Very faint. x 50.

Date	Time (U.T.)	Est Mag	Remarks
1963			
Oct 14	02 30		Very faint. Not able to pick up a suitable comparison star, but estimated magnitude near 9. Very diffuse and irregular in shape. No tail, central condensation or nucleus seen.
15	02 30	9.6	x 50. x 20 x 40 x 80.
Obs: L. L. van Zyl			
Ikeya 1963(a)			
1963			
Feb 12	19 00	4.5	Tail very faint
13	18 00	4.2	Tail very faint
14	19 00	4.1	Tail 3°
16	20 00	4.0	3°
18	21 30	4.0	3.5°
19	20 30	3.7	4°
20	19 00	3.8	4°
21	18 30	3.8	5°
22	18 45	3.8	6°
24	18 30	3.9	5°
25	18 00	4.0	5°
26	18 00	4.0	4°
27	19 00	4.1	4°
28	18 30	4.2	3°

M N A S S A

Monthly Notes of the Astronomical Society of Southern Africa

The Editorial Board invites the submission for publication of the results of astronomical research and articles of general astronomical interest. Contributions should, if possible, be typewritten in double spacing on quarto paper. Contributions should be kept as short as possible, and, ordinarily, should not exceed 2,000 words. Diagrams for reproduction should be carefully drawn in indian ink at least as large as the final size for reproduction. Diagrams are reproduced on separate pages and should not be included in the body of the text. Tabular matter should be presented in a form suitable for reproduction on a quarto page. Facilities exist for the inclusion of half-tone reproductions. The Editors reserve the right to charge contributors with the extra costs involved in the insertion of diagrams and half-tones. Members of the Astronomical Society of Southern Africa will not be charged otherwise for publication of contributions, but a charge will be made for reprints of articles. Reprints should be ordered at the time of submission of contributions.

The annual subscription to MNASSA for non-members of the Society is R2-50. Subscriptions and enquiries should be addressed to the Circulation Manager, Mr. H. E. Krumm, 3, Leeuwendal Crescent, Cape Town. All other communications should be addressed to MNASSA, c/o The Royal Observatory, Observatory, Cape Province, South Africa.

Chairman of Editorial Board: H.M. Astronomer at the Cape.

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M N A S S A



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of
Southern Africa



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MONTHLY NOTES

OF THE

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Royal Observatory,
Cape of Good Hope.

N O T I C E S

Elections The following nominations for Membership of the Society have been received:

Mrs. M. M. FitzGerald, 204 Cedarwood, O'Reilly Road, Berea, Johannesburg, Tvl.

Mr. F. Levy, 31 Arthur's Seat Mansions, Sea Point, Cape.

Mr. H. O. Oliver, Dept. of Applied Mathematics, University of the Witwatersrand, Milner Park, Johannesburg, Tvl..

Officers for the 1964-65 Session Members are reminded that nominations for Officers and Members of Council for the next session must reach the Honorary Secretary by June 15. A list of the present Officers will be found in the Society's "Handbook for 1964". Copies of the Society's Constitution may be obtained from the Honorary Secretary.

Telescopes for Sale A letter received by the Secretary from Messrs. Cooke, Troughton & Simms indicates that they are now carrying a small stock of astronomical telescopes with prices ranging from R37.00 to R280.00. They are willing to allow a special discount to bona fide Members on production of a letter signed by the Secretary of the Society.

Cape Centre Meeting The next meeting of the Cape Centre will be held at the Royal Observatory on Wednesday, June 10 at 8.00 p.m. Mr. G. Pulvermacher, Senior Lecturer at the South African College of Music, will give a talk entitled "The Music of the Stars".

Planetarium Attention is called to a lecture on Galileo Galilei to be given at the South African Museum Planetarium, Queen Victoria Street, Cape Town on Friday, June 19 at 8.15 p.m. This lecture, which is intended to commemorate the 400th anniversary of Galileo's birth, will be given by Mr. John Juritz of the Physics Department, University of Cape Town. As there are only 96 seats available, it will be essential to book beforehand either at the Museum itself or at Jack Lemkus in St. George's Street, Cape Town.

Ordinary planetarium shows are given each Saturday afternoon at 3.00 p.m. and each Sunday afternoon at 3.30 p.m. In addition there will be shows at 11.00 a.m. and 3.00 p.m. on June 1, 22 - 26, 29 and 30.