

Comet *Halley* Date & decimal (UT) *1985 NOV 11.94.*

Observer *K. M. Sturdy* Location *8 Potterygate Helmsley*
N. Yorks YO6 5BY.

Sky conditions, moonlight etc., *v. good.*

Total magnitude of comet (m_1) Instrument type *Newtonian*

Method used Aperture (cm) *21.6.*

Comparison stars magnitudes Focal ratio *F6.5.*

Source of comparison star mags. Magnification *X155 X 50.*

Coma diameter (arc mins) Degree of condensation *Strong cent. cond.,*

Principal tails: length Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form
for field sketch and other details. *Coma round and very small the comet being*
quite "put out" by K^1 Tauri

Approximate position and equinox: R.A. Decl. ()

A few seconds f. K^1 Tauri not well seen due to the star

Comet *Halley*Observer *K. M. Sturtevant*

Sky conditions, moonlight etc.,

Total magnitude of comet (m_1)

Method used

Comparison stars magnitudes

Source of comparison star mags.

Coma diameter (arc mins) *323" x 50 filar*
microm.

Principal tails: length

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Coma round diffuse*

Approximate position and equinox: R.A.

Decl.

()

*Pos not obtained.*Date & decimal (UT) *NOV 13.95.*Location *8 Potterygate Helmley*
*N. YORK YO6 5BX.*Instrument type *Newtonian*Aperture (cm) *21.6*Focal ratio *F6.5.*Magnification *x50 x98.*Degree of condensation *Very strong merging*
on stellar.

Position angle (°)

Comet *Halley.*

Observer *K.M. Sturtevant.*

Sky conditions, moonlight etc., *v. good sky
some smoke.*

Total magnitude of comet (m_1) *7 ± C = 'A'*

Method used

Comparison stars magnitudes

Source of comparison star mags.

Coma diameter (arc mins) *380" microm. X50.*

Principal tails: length

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Round, diffuse.*

Approximate position and equinox: R.A. *03^h40* Decl. *+21°24'* (1950.0)

Date & decimal (UT) *NOV 16.96.*

Location *8 Dottergate Melmsley
N. Yorks YO6 5BY.*

Instrument type *Newtonian*

Aperture (cm) *21-6*

Focal ratio *F6.5.*

Magnification *50 to 227.*

Degree of condensation *shatter in low power,
soft in 227.*

Position angle (°)

Comet *Halley.*Observer *K. M. Skirby*Sky conditions, moonlight etc., *good but full moon nearby.*Total magnitude of comet (m_1)

Method used

Comparison stars magnitudes

Source of comparison star mags.

Coma diameter (arc mins)

Principal tails: length

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Round, diffuse strong c.c. remaining on.*

the stellar

Approximate position and equinox: R.A. *01 40* Decl. *+16° 9'* (1950.)

At 20.40 the comet appeared to occult a 7.5 star at 01h 39.5. +16° 05'. The nucleus vanished and a very small haze remained. The star was all that remained, it is possible a small diminution in the brightness of the star...

Date & decimal (UT) *Nov 27.84.*Location *8 Potters Lake Helmsley N. Yorks YO6 5BY.*Instrument type *Newtonian*Aperture (cm) *21.6*Focal ratio *F6.5.*Magnification *50 to 108.*

Degree of condensation

Position angle ($^{\circ}$)

Comet *Halley.*Observer *K. M. Sturdy*Sky conditions, moonlight etc., *good.*Total magnitude of comet (m_1)

Method used

Comparison stars magnitudes

Source of comparison star mags.

Coma diameter (arc mins) *500" (meas. X50).*

Principal tails: length

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Round, diffuse*

Approximate position and equinox: R.A.

Date & decimal (UT) *Dec. 5. ~~32~~³³*Location *8 Potterygate Helmsley
N. Yorks YO6 5BX.*Instrument type *Newtonian*Aperture (cm) *21.6.*Focal ratio *F6.5*Magnification *50 to 155.*Degree of condensation *almost stellar.*Position angle ($^{\circ}$)

Decl.

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Comet *Halley.* Date & decimal (UT) *Dec. 8.89.*

Observer *K.M. Sturdy* Location *8 Pottersgate Helmsley*
N. Yorks YO6 5BY.

Sky conditions, moonlight etc., *rather misty*

Total magnitude of comet (m_1) Instrument type *Newtonian*

Method used Aperture (cm) *21.6*

Comparison stars magnitudes Focal ratio *F6.5.*

Magnification *50-72.*

Source of comparison star mags.

Coma diameter (arc mins) *312'' (meas. X50).* Degree of condensation *strong C.C. almost stellar*

Principal tails: length Position angle ($^\circ$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form
 for field sketch and other details. *Diffuse, oval, towards 70° but ovality
 disappears on illuminating the mic wires*

Approximate position and equinox: R.A. Decl. ()

Comet *Halley.*
 Observer *K.M Sturdy*
 Sky conditions, moonlight etc., *very good.*
 Total magnitude of comet (m_1)
 Method used
 Comparison stars magnitudes

Date & decimal (UT) *Dec. 9.79.*
 Location *8 Pottersgate Idelmoley,
 N. Yorks YO6 3BY.*
 Instrument type *Newtonian*
 Aperture (cm) *21.6*
 Focal ratio *F6.5*
 Magnification *50 to 155.*

Source of comparison star mags.
 Coma diameter (arc mins) *400" microm. X 50.*
 Principal tails: length *broad diffuse and
 faint. about 40' long.*

Degree of condensation *Strong C.C. not quite
 stellar*
 Position angle ($^{\circ}$) *80 $^{\circ}$ \pm*

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Coma round, diffuse, tail seemed better define on the north side*

Approximate position and equinox: R.A. *23 h 46'* Decl. *+06 $^{\circ}$ 53'* (1950.0.)

At about 20.10 the nucleus passed very close to a 7.5 m. star, the nucleus appeared to lose all its solidity and became diffuse. No diminishment of the stars brightness was suspected in this occasion

Comet *Halley*
 Observer *K. M. Skuseby*
 Sky conditions, moonlight etc. *For some haze.*
 Total magnitude of comet (m_1)
 Method used
 Comparison stars magnitudes

Source of comparison star mags.

Coma diameter (arc mins) *353" microm. X50.*

Principal tails: length

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Diffuse coma, oval in 70°, but appeared round under the faintest microm. illumination.*

Approximate position and equinox: R.A.

Date & decimal (UT) *Dec 13.81.*

Location *8 Pottengate Helmsley N. Yorks. YO6 5BY*

Instrument type *Newtonian*

Aperture (cm) *21.6*

Focal ratio *F.6.5*

Magnification *50 to 108.*

Degree of condensation *Strong C.C. not stellar.*

Position angle (°)

Decl. ()

Comet *Halley*Observer *R. M. Sturdy*Sky conditions, moonlight etc., *good but half moon.*Total magnitude of comet (m_1)

Method used

Comparison stars magnitudes

Source of comparison star mags.

Coma diameter (arc mins) *400" x 264" microm }
without illumination (moon). x50 }*

Principal tails: length

Date & decimal (UT) *Dec 18. 80.*Location *8 Pottergate Helmsley.
N. Yorks YO6 5BY.*Instrument type *Newtonian*Aperture (cm) *21.6*Focal ratio *F6.5*Magnification *50. 72.*Degree of condensation *Strong c.c. but
diffuse*Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Coma oval, major axis $70^{\circ} \pm$ cent cond. decidedly more diffuse than previously*

Approximate position and equinox: R.A.

Decl.

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Comet HALLEY.

Date & decimal (UT) DEC 29.74.

Observer K. M. STURDY.

Location 8 POTTERGATE HELMSLEY
N. YORKS YO6 5BY.

Sky conditions, moonlight etc., GOOD.

Total magnitude of comet (m_1)

Instrument type NEWTONIAN

Method used

Aperture (cm) 21.6

Comparison stars magnitudes

Focal ratio F. 65.

Magnification 50. is 108.

Source of comparison star mags.

Coma diameter (arc mins) 200" at 90° to
radius vector.

Degree of condensation strong c.c. unstellar

Principal tails: length Tapering 'pyramid' of
light 417" long meas. from nucleus.Position angle ($^{\circ}$) 70° ±

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Coma round diffuse, the pyramid tail is banded on either side with v. faint diffuse material fanning out broader than coma

Approximate position and equinox: R.A. 22^h 21. Decl. -01' 58' (1950.0.)

Comet *Halley*Observer *K. M. Sturdy*Sky conditions, moonlight etc., *good.*Total magnitude of comet (m_1)

Method used

Comparison stars magnitudes

Source of comparison star mags.

Coma diameter (arc mins) *248'' microm. X50.*Principal tails: length *40' long very
diffuse*

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Coma round, diffuse, v faint extension of coma. then the even fainter diffuse fan tail, the pyramid appearance not seen.*

Approximate position and equinox: R.A.

Date & decimal (UT) *Dec 31. 73.*Location *8 Doltergake Helmsley
N. YORKS YO6 5BJ.*Instrument type *Newtonian*Aperture (cm) *21.6.*Focal ratio *F6.5.*Magnification *50, 72 108. 1245.*Degree of condensation *strong c.c. 'soft'*Position angle ($^{\circ}$) *at $\times 145$.*

Decl. ()

Comet *Halley.*

Observer *K. M. Sturday*

Sky conditions, moonlight etc.,

Total magnitude of comet (m_1)

Method used

Comparison stars magnitudes

Source of comparison star mags.

Coma diameter (arc mins) *196" x 145" microm.*

Principal tails: length *x 140.*

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Oval in higher power, ovality not obvious. in low power: major axis at 90° to tail.*

Approximate position and equinox: R.A. Decl. ()

Date & decimal (UT) *Jan. 3. 1974 1985.*

Location *8. Pottergate Helmsley N. Yorks YO6 5BY.*

Instrument type *Newtonian*

Aperture (cm) *21.6*

Focal ratio *F6.5.*

Magnification *50 to 227.*

Degree of condensation *almost stellar.*

Position angle ($^{\circ}$)

Comet *Halley*Observer *K.M. Sturday*Sky conditions, moonlight etc., *good, some
distt illumination*Total magnitude of comet (m_1)

Method used

Comparison stars magnitudes

Source of comparison star mags.

Coma diameter (arc mins) *316" microm x50
at 90° to tail.*Principal tails: length *Diffuse tail**Capening from coma. 30-40' long*

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. *Coma diffuse, round. nucleus displaced
to sun, brighter cloud. suspected s.p. lte nucleus in inner coma.*

Approximate position and equinox: R.A.

Date & decimal (UT) *Jan 5.74.*Location *8 Pottergate Helmsley
N. Yorks YO6 5BY.*Instrument type *Newtonian*Aperture (cm) *21.6*Focal ratio *F6.5.*Magnification *50 to 108.*Degree of condensation *interme, bluish*Position angle (°) *not stellar**79°*

Decl.

Comet *Halley*Observer *K. M. Skurdy*Sky conditions, moonlight etc., *good.*Total magnitude of comet (m_1)

Method used

Comparison stars magnitudes

Source of comparison star mags.

Coma diameter (arc mins) *190" microm. x50.*
*at 90° to tail.*Principal tails: length *20' long, fanning*
*out: diffuse.*General description of coma shape, nucleus, jets, tails etc. Use reverse of form
for field sketch and other details. *coma round diffuse, brushes of light**sweeping out from sides of coma to join tail*

Approximate position and equinox: R.A.

Date & decimal (UT) ¹⁹⁸⁶ *Jan. 10.75.*Location *8 Pottergate Helmsley*
*N. Yorks YO6 5BY.*Instrument type *Newtonian*Aperture (cm) *21.6*Focal ratio *F6.5*Magnification *50 72.*Degree of condensation *intense but un-*
-stellar bluish.

Position angle (°)

Decl.

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Comet P/HALLEY 1982i

Date & decimal (UT) 1986 JAN 10.750

Observer M. J. HENRIE

Location COLCHESTER

Sky conditions, moonlight etc., no moon, very clear

local lights gone, slight twilight

Total magnitude of comet (m_1) 5.3

Instrument type Binoc

Method used I-O

Aperture (cm) 60

Comparison stars magnitudes \approx star marked

Focal ratio -

5.3 between α and θ AQU.

Magnification 13

Source of comparison star mags. HW named chart 4A.

Coma diameter (arc mins) 5'

Degree of condensation 7

Principal tails: length 40'

Position angle ($^\circ$) \approx 65° ($60-70^\circ$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Coma strongly condensed - slightly pear-shaped tail narrow fan $\leq 10^\circ$ - at least 43° long.

Approximate position and equinox: R.A. $21^h 54^m$ Decl. $-4^\circ 40'$ (1950.0.)

Comet P/HALLEY 1982i Date & decimal (UT) 1986 JAN 11.750
 Observer M. J. HEWRIE Location LANCHESTER
 Sky conditions, moonlight etc., no moon, very clear but few usual lights.
 Total magnitude of comet (m_1) 5.3 Instrument type Binox
 Method used 1-0 Aperture (cm) 60
 Comparison stars magnitudes ~~5~~ stars marked Focal ratio —
 5.3 between α and θ Aqu. Magnification 13
 Source of comparison star mags. 1Hw Manual chart 4A
 Coma diameter (arc mins) 5' Degree of condensation 7
 Principal tails: length 10° Position angle ($^\circ$) 65

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Coma strongly condensed - intense inner central condensation - tail emerging from head right for $\approx 10^\circ$ sector appears.

Approximate position and equinox: R.A. $21^h 52^m$ Decl. $-4^\circ 50'$ (1980.0.)

In 250 (77) reflector $\times 60$ appearance similar - condensation not visible $\frac{1}{2}$ tail visible.

Comet P/Halley 1982 i

Date & decimal (UT) 1986 JAN 14 763

Observer M. T. HENRIE

Location COLCHESTER

Sky conditions, moonlight etc., V. clear

Moon 5 days -
Total magnitude of comet (m_1) 5.3

Instrument type Binoscopes.

Method used I-O

Aperture (cm) 60

Comparison stars magnitudes \leq = star numbered.
5.3 between α and δ Aqu on 11th November
chart 4A.

Focal ratio -

Magnification 13

Source of comparison star mags. -

Coma diameter (arc mins) 5'

Degree of condensation 1c7

Principal tails: length 1^oPosition angle ($^{\circ}$) \sim 65^o

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Tail noticeable despite moonlight at low altitude but sky exceptionally clear in NW gale.

Approximate position and equinox: R.A. 21^h 47^m Decl. -5^o 20' (1985.0.)

(too windy for telescopic observations or photography).

Comet P/Halley 1982i

Date & decimal (UT) 1985 DEC 27.75

Observer Michael A. Hattley

Location Stannington Sheffield

Sky conditions, moonlight etc.,

limiting M_v 4.6Total magnitude of comet (m_1) 4.4

Instrument type L

Method used estimate

Aperture (cm) 20.5

Comparison stars magnitudes

Focal ratio 6

Magnification $\times 60$

Source of comparison star mags.

Coma diameter (arc mins)

Degree of condensation 7 quite sharp

Principal tails: length

30'

Position angle ($^\circ$) 45° with faint curved
spikes at 10° and 80°

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Coma odd shape - not round is best description.

Fairly complicated head structure. Tail faint but not difficult, quite narrow.

Approximate position and equinox: T.A.

Decl.

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Comet P/Halley 1982i

Date & decimal (UT) 1985 DEC 31.76

Observer Michael A. Hather

Location Stannington, Sheffield.

Sky conditions, moonlight etc.,

Total magnitude of comet (m_1) 4.2

Instrument type B

Method used $\gamma(2)C(4)\pi$

Aperture (cm) 3.5 (Multi-coated)

Comparison stars magnitudes

Focal ratio -

 γ Aqr and π Aqr (3.97_v & 4.64_v)

Magnification 7

Source of comparison star mags.

Coma diameter (arc mins) 12'

Degree of condensation 5

Principal tails: length

Position angle ($^{\circ}$) 55 $^{\circ}$ 1 $^{\circ}$.2

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Coma 'arrow' shaped. Tail very fine and long also very faint. Tail not seen in 10x50B or 20.5cm L to same extent.

Approximate position and equinox: T.A.

Decl.

()

Comet P/Halley 1982i

Date & decimal (UT) 1985 DEC 1.98

Observer Michael A Hatthey

Location Stannington, Sheffield.

Sky conditions, moonlight etc.,

Haze - limiting Mw 4.0

Total magnitude of comet (m_1) 5.5~

Instrument type B

Method used estimate

Aperture (cm) 5

Comparison stars magnitudes

Focal ratio —

Magnification $\times 10$

Source of comparison star mags.

Coma diameter (arc mins) 11'

of condensation 6

Principal tails: length 50' (see comments)

Position angle ($^\circ$) 45 $^\circ$

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

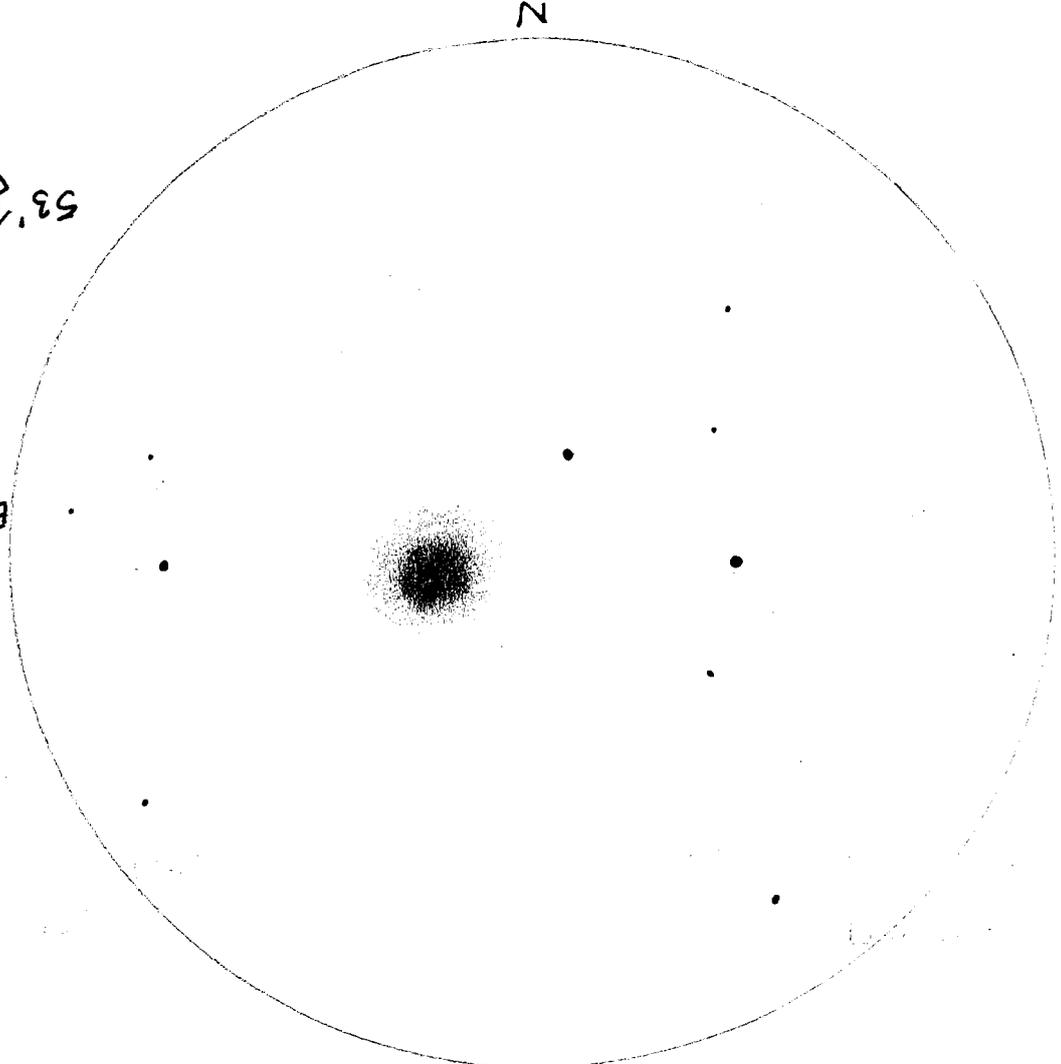
for field sketch and other details. Coma 'round yade' shape and quite well defined. Exceptionally faint tail barely detectable - perhaps extending up to 50' length but this very uncertain.

Approximate position and equinox: T.A.

Decl. ()

53' field

F



3

S

N

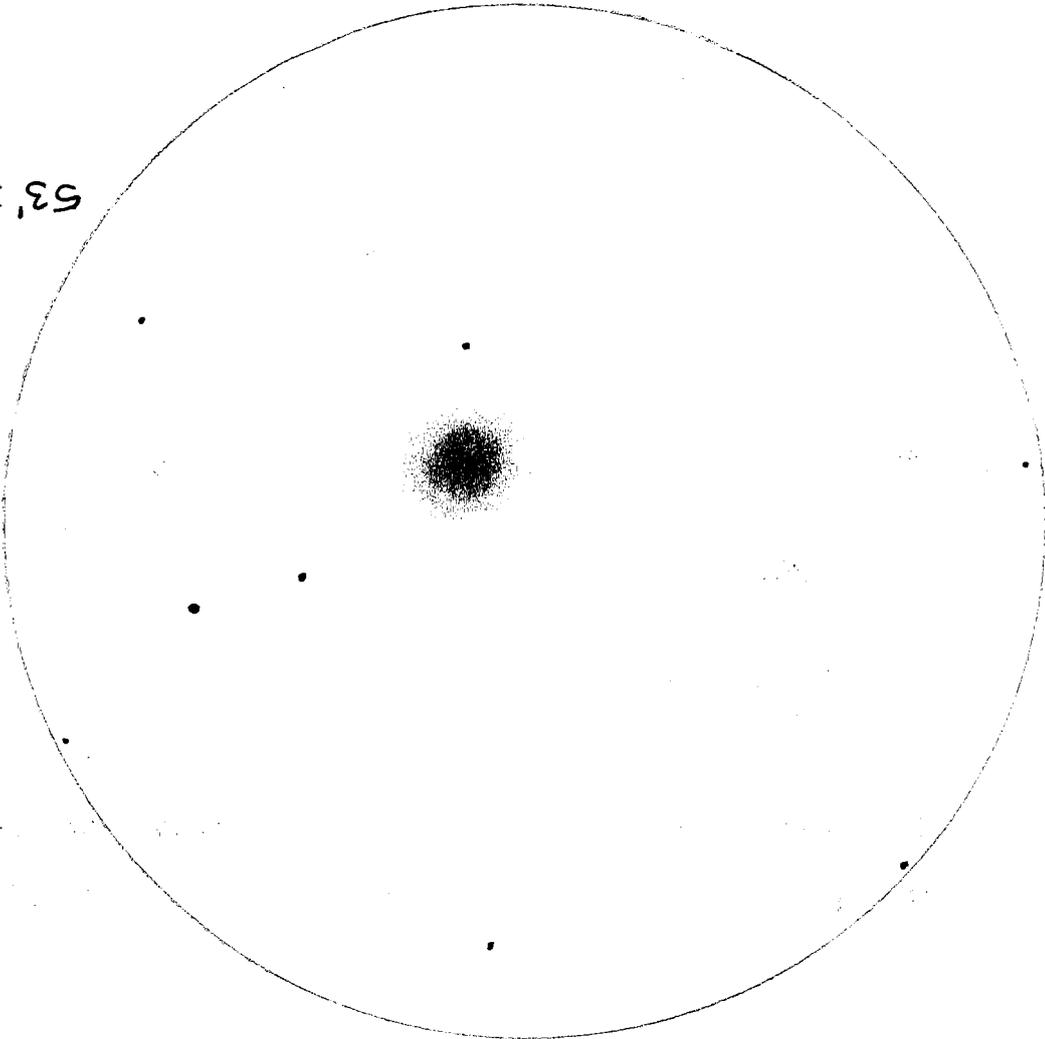
53' 1/2

E

3

S

2



Comet P/HALLEY 1982i

Date & decimal (UT) NOV 1985 10.83

Observer Michael A Hather

Location Stanmington, Sheffield.

Sky conditions, moonlight etc.,

Haze, limiting mv 4.5
Total magnitude of comet (m_1)

Instrument type L

Method used

Aperture (cm) 20.5

Comparison stars magnitudes

Focal ratio 6

Magnification X60

Source of comparison star mags.

Coma diameter (arc mins) 4'

Degree of condensation 5

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Notail

Approximate position and equinox: T.A.

Decl. ()

Comet P/Halley, 1982i

Neg. Ref. No. 2B12

Approx. Position: Epoch 1950.0 R.A. $11^{\text{h}}03^{\text{m}}$ Dec. $-20^{\circ}30'$

Date & decimal U.T. (mid-exposure) 1986 April 28.92361

Start $21^{\text{h}}55^{\text{m}}00^{\text{s}}$ Finish $22^{\text{h}}25^{\text{m}}00^{\text{s}}$ Duration 30 min

Instrument: Type A Ap. 17cm F17 FL 1.2m Neg. scale 1mm = 172"

Emulsion: Type Ila-F ISO/ASA speed ~ 400 Format 12.7cm x 10cm

Developer D19b Time 7 mins Temp. 20°C

Sky conditions Very good D2 S2 T1 Low altitude

Comet mag. (pg) 4 Coma diameter 9'+ D.C. 8

Tail(s): Length P.A.° Guiding method 3 ($3.5'/\text{min}$)

Observer H.B. Ridley Observatory Eastfield Code 984

Print enl. x6 1cm = 5'

Comet P/Halley, 1982i

Neg. Ref. No. Z B 14

Approx. Position: Epoch 1950.0 R.A. $10^{\text{h}} 30^{\text{m}}.5$ Dec. $-10^{\circ} 45'$

Date & decimal U.T. (mid-exposure) 1986 May 13.921875

Start $21^{\text{h}} 57^{\text{m}} 00^{\text{s}}$ Finish $22^{\text{h}} 18^{\text{m}} 00^{\text{s}}$ Duration 21^{m} Instrument: Type A Ap. $17\text{cm} F1.7$ FL 1.2m Neg. scale $1\text{mm} = 172''$ Emulsion: Type IIa-F ISO/ASA speed ≈ 400 Format $12.7\text{cm} \times 10\text{cm}$ Developer D19b Time 7min Temp. 21°C

Sky conditions Cres. Moon (5 days) + slight twilt. D3S2T2

Comet mag. (pg) 6.5 Coma diameter $3'$ D.C. 8Tail(s): Length $20'$ P.A. 110 Guiding method

Observer H.B. Ridley Observatory Eastfield Code 984

Comet P/Halley, 1982i

Date & decimal (UT) 1985 Oct 13.0743

Observer H. B. Ridley

Location Eastfield Obay,
West Chinnock

Sky conditions, moonlight etc.,

Good sky, 8

Total magnitude of comet (m_1) ≈ 12

Instrument type Zeiss Triplet

Method used

Aperture (cm) 14

Comparison stars magnitudes

Focal ratio 5

Magnification

Source of comparison star mags. Coma diameter (arc mins) ~~1~~ 1Degree of condensation ~~3~~ 6

Principal tails: length

Position angle ($^\circ$)

None

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Small condensed image.

Approximate position and equinox: R.A.

Decl. ()

06^h 03^m.5 +20° 31' 1950.0

Photo

BRITISH ASTRONOMICAL ASSOCIATION (COMET SECTION)

VISUAL OBSERVATION REPORT

Comet *Hartley-Good, 1985Z*

Date & decimal (UT) *1985 Oct 13.8485*

Observer *H.B. Ridley*

Location *Eastfield Obsy.*

Sky conditions, moonlight etc., *Good, slight haze West Chimney*

Total magnitude of comet (m_1) *9+*

Instrument type *Zeiss Triplet*

Method used

Aperture (cm) *14*

Comparison stars magnitudes

Focal ratio *5*

Magnification

Source of comparison star mags. */*

Coma diameter (arc mins) *Very faint - probably several arcmins.*

Degree of condensation *9*

Principal tails: length

Position angle ($^\circ$)

Thin gas-tail? ~1'

210°?

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Quite strong central cond. Very faint diffuse coma

Approximate position and equinox: R.A.

Decl.

20^h 53^m

-13° 15'

(1950.0)

Comet Hartley-Good, 1985 2

Date & decimal (UT) 1985 Oct 5.8514

Observer H. B. Ridley

Location Eastfield Obsy.
West Chinnock

Sky conditions, moonlight etc.,

Dark sky, passing clouds
Total magnitude of comet (m_1) ~ 10

Instrument type Zeiss Triplet

Method used

Aperture (cm) 14

Comparison stars magnitudes
Guesstimate

Focal ratio 5

Magnification

Source of comparison star mags.

Coma diameter (arc mins) 1' - 2'

Degree of condensation 7-8

Principal tails: length

Nil

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Very small central condensation.
Very faint coma.

Approximate position and equinox:

R.A.

Decl.

1950.0

22^h 07.^m 7 - 21^o 33

Comet P/Halley, 1982i

Neg. Ref. No. ZB11

Approx. Position: Epoch 1950.0

R.A. $11^h 12^m$ Dec. $-22^{\circ} 40'$

Date & decimal U.T. (mid-exposure) 1986 April 26.88854

Start $21^h 12^m 00^s$ Finish $21^h 27^m 00^s$ Duration 15 min

Instrument: Type A Ap. 17cm F17 FL 1.2m Neg. scale 1mm = 172"

Emulsion: Type IIa-F ISO/ASA speed ~ 400 Format 5in X 4in (12.7cm X 10)

Developer D19b Time 7m Temp. 20°C

Sky conditions Poor - D3T353 Murky at low alt.

Comet mag. (pg) ~ 5

Coma diameter 1'.5

D.C. 8

Tail(s): Length —

P.A.° —

Guiding method 3 ($4''/1\text{min}$)

Observer H. B. Ridley

Observatory Eastfield Code 984

photo.

Comet *Hertley-Good, 1985 2*

Date & decimal (UT) *1985 Oct 14 8340*

Observer *H.B. Ridley*

Location *Eastfield Obsy
West Chimcock*

Sky conditions, moonlight etc.,

Good sky but mist rising.

Total magnitude of comet (m_1) *9+*

Instrument type *Zeiss Triplet*

Method used *—*

Aperture (cm) *14*

Comparison stars magnitudes *—*

Focal ratio *5*

Magnification *—*

Source of comparison star mags. *—*

Degree of condensation *9*

Coma diameter (arc mins)

Barely visible

Principal tails: length

Not definite

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

owing to mist, very little visible other than central cond.

Approximate position and equinox:

R.A.

Decl.

20^h 44^m.5 -12° 08' (1950.0)

Comet *Hall 82:*

Date & decimal (UT) 1985 Nov 15.95

Observer *J D Shanklin*Location *Cambridge*Sky conditions, moonlight etc., *5*Rel *1* *4³/₄ / 5¹/₄*Total magnitude of comet (m_1) *5.9*Instrument type *B*Method used *10*Aperture (cm) *5*

Comparison stars magnitudes

*54 (2) & (1) 62**= 60*

Focal ratio

Magnification *7*

Source of comparison star mags.

SC 2000

Coma diameter (arc mins)

*6.7*Degree of condensation *5*

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

well condensed

Approximate position and equinox: R.A. *3 48* Decl. *21 47* (*1950*)

Comet Hall 82i

Date & decimal (UT) 1985 Nov 16.01

Observer S D Shull

Location Cambridge

Sky conditions, moonlight etc.

8 rel 1 6¹/₄ / 6¹/₄Total magnitude of comet (m_1) 5.1

Method used 10

Instrument type R

Aperture (cm) 1

Focal ratio 1

Magnification 1

} Naked eye

Comparison stars magnitudes

54 48

Source of comparison star mags.

AAVSO

Coma diameter (arc mins)

17

Degree of condensation 2

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Diffuse

Approximate position and equinox: R.A. 3 48 Decl. 21 47 (1980)

Comet *Hall 82i*Date & decimal (UT) 1985 *Nov 16.04*Observer *J D Shall*Location *Cambridge*Sky conditions, moonlight etc., *8 Rel 1**6x/16x*Total magnitude of comet (m_1) *6.9*Instrument type *R*Method used *10*Aperture (cm) *20*

Comparison stars magnitudes

Focal ratio *14**6.9*Magnification *40*

Source of comparison star mags.

AAVSO

Coma diameter (arc mins)

Degree of condensation *7**6.0*Principal tails: length *7'*Position angle ($^{\circ}$) *130*

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

well condensed. Tail diffuse

Approximate position and equinox: R.A. *03 48* Decl. *21 47 (1950)*

Comet *Hall 82i*Date & decimal (UT) 1985 *NV* 18.05Observer *J Shank*Location *Cambridge*Sky conditions, moonlight etc., *7* *rel**6/6 1/4*Total magnitude of comet (m_1) *6.2*Instrument type *B*Method used *10*Aperture (cm) *8*

Comparison stars magnitudes

Focal ratio

*59, 65*Magnification *10*

Source of comparison star mags.

AAVSO

Coma diameter (arc mins)

Degree of condensation *6**18*

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

*well condensed circular coma*Approximate position and equinox: R.A. *3 29* Decl. *21 19* (*1980*)

Comet *Hall 82:*Date & decimal (UT) *1985 Nov 18.06*Observer *J Shankli*Location *Cambridge*Sky conditions, moonlight etc., *7 rel 3**6/6'4 misty*Total magnitude of comet (m_1) *5.2*Instrument type *R*Method used *10*Aperture (cm) *1*

Comparison stars magnitudes

Focal ratio

*S3 S1*Magnification *1*

Source of comparison star mags.

AAVSO

Coma diameter (arc mins)

Degree of condensation *3**18*

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

*Diffuse*Approximate position and equinox: R.A. *3 29* Decl. *21 19 (1950)*

Comet Hall 82i

Date & decimal (UT) 1985 Nov 18.07

Observer J Shanli

Location Cambridge

Sky conditions, moonlight etc., 7 Rel 1 6/6¹/₄Central coma
Total magnitude of comet (m_1) 7.8

Instrument type R

Method used 10

Aperture (cm) 20

Comparison stars magnitudes

Focal ratio 14

75, 81

Magnification 40

Source of comparison star mags.

AAVSO

Coma diameter (arc mins)

Degree of condensation 7-8

5.0

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Well condensed circular coma

Approximate position and equinox: R.A. 3 29 Decl. 21 19 (1950)

Comet Hall 82i

Date & decimal (UT) 1985 Nov 18.90

Observer J Shanthi

Location Cambridge

Sky conditions, moonlight etc., 4 Rel 2

42/52

Total magnitude of comet (m_1) 5.7

Instrument type B

Method used 10

Aperture (cm) 5

Comparison stars magnitudes

53, 62

Focal ratio

Magnification 7

Source of comparison star mags.

~~Atlas~~ Sky & Tel Pleiades chart Nov 85

Coma diameter (arc mins)

9

Degree of condensation 3

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Diffuse

Approximate position and equinox: R.A. 3 19 Decl. 21 05 (1950)

Comet *Hall 82:*Observer *S D Shankh:*Sky conditions, moonlight etc., *4 Rel 1*Total magnitude of comet (m_1) *5.6*Method used *10*

Comparison stars magnitudes

*52, 63*Source of comparison star mags. *RAVSO*Coma diameter (arc mins) *9*

Principal tails: length

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

*Condensed*Approximate position and equinox: R.A. *01 38* Decl. *16 05* (*1950*)Date & decimal (UT) *1983* ^{*Nov*} ~~*Dec*~~ *27.76*Location *Cambridge*
*4 1/2 / 5 1/4 moonlight*Instrument type *0*Aperture (cm) *8*

Focal ratio

Magnification *10*Degree of condensation *4-5*Position angle ($^{\circ}$)

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to support informed decision-making.

3. The third part of the document focuses on the role of technology in modern data management. It discusses how advanced software solutions can streamline data collection, storage, and analysis, leading to more efficient and accurate results.

4. The fourth part of the document addresses the challenges associated with data management, such as data quality, security, and privacy. It provides strategies to mitigate these risks and ensure that data is used responsibly and ethically.

5. The fifth part of the document concludes by summarizing the key findings and recommendations. It stresses the importance of ongoing monitoring and evaluation to ensure that data management practices remain effective and up-to-date.

Comet *Halle 82:*

Date & decimal (UT) 1985 Dec 03.74

Observer *J D Shanks*Location *Cambridge*Sky conditions, moonlight etc., *S Rel 1**4/5 1/4*Total magnitude of comet (m_1) *5.3*Instrument type *B.*Method used *10*Aperture (cm) *8*

Comparison stars magnitudes

Focal ratio

*51, 58*Magnification *10*Source of comparison star mags. *AAVSO*Coma diameter (arc mins) *9*Degree of condensation *4*

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. *00 35* Decl. *11 10* (*1950*)

Comet *Hall 82:*Date & decimal (UT) *1985 Dec 03.96*Observer *J D Shankli*Location *Cambridge*Sky conditions, moonlight etc., *7 Rel 1**S/6*Total magnitude of comet (m_1) *5.3*Instrument type *B*Method used *10*Aperture (cm) *8*

Comparison stars magnitudes

Focal ratio

*48, 55*Magnification *10*Source of comparison star mags. *AAVSO*Coma diameter (arc mins) *22'*Degree of condensation *S-6*

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Images taken with IPD in several wavebands (H_2O^+ , C_2 , CO^+) Brightest is C_2*

Approximate position and equinox: R.A. *00 18* Decl. *09 35* (*1950*)

Comet Hall 82:

Date & decimal (UT) 1985 Dec 07.74

Observer J D Shalli

Location Cambridge

Sky conditions, moonlight etc., 7 Rel 1

5^h14/6Total magnitude of comet (m_1) 5.9

Instrument type B

Method used 10

Aperture (cm) 8, 5

Comparison stars magnitudes

Focal ratio

57, 63

Magnification 10, 7

Source of comparison star mags. AAUSO

Coma diameter (arc mins) 14

Degree of condensation 5

Principal tails: length

Position angle ($^{\circ}$) 0701 $\frac{1}{2}$ "

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. 0001 Decl. 08 05 (1950)

} Same in
both

Comet Hall 82:

Date & decimal (UT) 1985 Dec 07.75

Observer J D Stalkin.

Location Cambridge

Sky conditions, moonlight etc., 7 Rel 1

5³/₄/6Total magnitude of comet (m_1) 5.7

Instrument type NE

Method used 10

Aperture (cm)

Comparison stars magnitudes

Focal ratio

57

Magnification

Source of comparison star mags. AAUSO

Coma diameter (arc mins) 18

Degree of condensation 3

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. 0001

Decl. 08 05 (1980)

Comet Hall 82:

Date & decimal (UT) 1985 Dec 08.72

Observer J D Shanklin

Location Cambridge

Sky conditions, moonlight etc., 4 rel 1 4/5 1/2 Cloud

Total magnitude of comet (m_1) 6.0

Instrument type 0

Method used 10

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio

57, 63

Magnification 10

Source of comparison star mags.

AAVSO

Coma diameter (arc mins) 11

Degree of condensation 5

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. 23 54 Decl. 07 20 (1950)

Comet *Hall 82i*

Date & decimal (UT) 1985 Dec 13.73

Observer *J D Shankli*Location *Cambridge*Sky conditions, moonlight etc., *3* Rel *2* *4/5* *cloud*Total magnitude of comet (m_1) *5.2*Instrument type *B*Method used *10*Aperture (cm) *8*

Comparison stars magnitudes

Focal ratio

*50, 59*Magnification *10*

Source of comparison star mags.

*AAVSO*Coma diameter (arc mins) *12*Degree of condensation *5*

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Condensed to centre

Approximate position and equinox: R.A. *23 20* Decl. *04 10* (*1950*)

Comet *Hall 82i* Date & decimal (UT) 1985 *Dec 14.79*

Observer *J D Shankli* Location *Cambridge*

Sky conditions, moonlight etc., *7* *Rel 1* *5 1/2/6k*

Total magnitude of comet (m_1) *4.8* Instrument type *B*

Method used *10* Aperture (cm) *8*

Comparison stars magnitudes Focal ratio

43, 50 Magnification *10*

Source of comparison star mags.

AAVSO

Coma diameter (arc mins) *16* Degree of condensation *6*

Principal tails: length Position angle ($^\circ$) *065*

1 1/2

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. *2016* Decl. *0240* (*1950*)

Comet *Hall 82:*

Date & decimal (UT) 1985 Dec 14.80

Observer *J D Shalli*Location *Cambridge*Sky conditions, moonlight etc., *7* Rel *1* *SL/64**Central condensation*
~~Total~~ magnitude of comet (m_1) *5.6*Instrument type *R*Method used *10*Aperture (cm) *20*

Comparison stars magnitudes

Focal ratio

*50, 62*Magnification *40*

Source of comparison star mags.

AAVSO

Coma diameter (arc mins)

Degree of condensation

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

*Coma elongate = 065 with thin central spine*Approximate position and equinox: R.A. *2316* Decl. *0340* (*1980*)

Comet *Hall 82i* Date & decimal (UT) *1985 Dec 22.73*

Observer *J D Shanklin* Location *Dodleston*

Sky conditions, moonlight etc., *S Rel 1 4³/₄ / 5¹/₂ moon.*

Total magnitude of comet (m_1) *5.0* Instrument type *B*

Method used *10* Aperture (cm) *8*

Comparison stars magnitudes Focal ratio

40, 54 Magnification *20*

Source of comparison star mags.

AAVSO

Coma diameter (arc mins) *9* Degree of condensation *6*

Principal tails: length Position angle ($^\circ$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. *22 41* Decl. *00 05* (*1950*)

Comet Hall 82i

Date & decimal (UT) 1985 Dec 23.74

Observer J D Shanklin

Location Dodington

Sky conditions, moonlight etc., 4 Rel 1 4/5 Moon, haze

Total magnitude of comet (m_1) 5.6

Instrument type B

Method used 10

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio

54, 61

Magnification 20

Source of comparison star mags. AAVSO

Coma diameter (arc mins) 9

Degree of condensation 6

Principal tails: length 30'

Position angle ($^{\circ}$) 057

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. 22 39 Decl. $-0^{\circ} 10'$ (1950)

Comet Hall 82:

Date & decimal (UT) 1985 Dec 27.74

Observer J D Shanklin

Location Dodleston

Sky conditions, moonlight etc., 5 Rel 1

4/5/4 moon

Total magnitude of comet (m_1) 4.7

Instrument type *B

Method used 10

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio

40, 50

Magnification 20

Source of comparison star mags. AAUSO

Coma diameter (arc mins) 9

Degree of condensation 6-7

Principal tails: length 45'

Position angle ($^{\circ}$) 062

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. 22 26 Decl. $-1^{\circ} 26'$ (1950)

Comet *Hall 82:*

Date & decimal (UT) 1985 Dec 18.73

Observer *J D Shanklin*Location *Cambridge*Sky conditions, moonlight etc., *5 Rel 1 3/Si moon close*Total magnitude of comet (m_1) *5.0*Instrument type *B*Method used *10*Aperture (cm) *8*

Comparison stars magnitudes

Focal ratio

*45, 53*Magnification *20*

Source of comparison star mags.

*AAVSO*Coma diameter (arc mins) *12*Degree of condensation *6-7*Principal tails: length *60'*Position angle ($^{\circ}$) *067*

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. *22 57* Decl. *1 40* (*1950*)

Comet *Hall 82i*

Date & decimal (UT) 1985 Dec 28.74

Observer *J D Shankli*Location *Dodleston*Sky conditions, moonlight etc., *6 Rel 1**5¹/₄/5³/₄ moon rising*Total magnitude of comet (m_1) *5.4*Instrument type *B*Method used *10*Aperture (cm) *8*

Comparison stars magnitudes

Focal ratio

*50, 62*Magnification *20*Source of comparison star mags. *AAVSO*Coma diameter (arc mins) *9*Degree of condensation *7*Principal tails: length *40'*Position angle ($^{\circ}$) *070*

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Magnitude the same in 7x50 B

Approximate position and equinox: R.A. *22 23* Decl. *-1° 50'* (*1950*)

Comet *Hale* 82:

Date & decimal (UT) 1985 Dec 28.74

Observer *J D Shanklin*Location *Dodleston*Sky conditions, moonlight etc., 6 *Rel* 2 *S¹/₄ / S³/₄* *moon rising*Total magnitude of comet (m_1) *5.0*

Instrument type

Method used *0*

Aperture (cm)

Comparison stars magnitudes

Focal ratio *NE**50*

Magnification

Source of comparison star mags. *AAV50*Coma diameter (arc mins) *18*Degree of condensation *5*

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. *22 23* Decl. *-1 50* (*1950*)

1911

1. The first part of the report deals with the general situation of the country and the progress of the work during the year. It is divided into two main sections: the first section deals with the general situation and the second section deals with the progress of the work.

2. The general situation of the country is described in the first section. It is found that the country is in a state of general prosperity and that the progress of the work is satisfactory.

3. The progress of the work is described in the second section. It is found that the work has been carried out in accordance with the plan and that the results are satisfactory.

4. The following table shows the results of the work during the year:

Item	1910	1911
Total	100	100
...

5. The results of the work during the year are shown in the following table:

Item	1910	1911
Total	100	100
...

6. The following table shows the results of the work during the year:

Item	1910	1911
Total	100	100
...

7. The following table shows the results of the work during the year:

Item	1910	1911
Total	100	100
...

8. The following table shows the results of the work during the year:

Item	1910	1911
Total	100	100
...

9. The following table shows the results of the work during the year:

Item	1910	1911
Total	100	100
...

10. The following table shows the results of the work during the year:

Item	1910	1911
Total	100	100
...

Comet Hall 82:

Date & decimal (UT) 1986 JAN 03.74

Observer J D Shankli

Location Cambridge

Sky conditions, moonlight etc., 7 R1 5 $\frac{1}{2}$ /6 $\frac{1}{4}$ Total magnitude of comet (m_1) 5.4

Instrument type B

Method used 10

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio

50, 62

Magnification 20

Source of comparison star mags. AAUSO

Coma diameter (arc mins) 12

Degree of condensation 7

Principal tails: length 100

Position angle ($^{\circ}$) 068

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. 22 08 Decl. \rightarrow 15 (1980)

Comet *Hale 82i*

Date & decimal (UT) 1986 Jan 3.80

Observer *J D Shanks*Location *Cambridge*Sky conditions, moonlight etc., *6 R1**4 1/2 / 6 1/4*~~Total~~ ^{Central} magnitude of comet (m_1) *S.S*Instrument type *R*Method used *10*Aperture (cm) *20*

Comparison stars magnitudes

Focal ratio *14**50, 60*Magnification *40*Source of comparison star mags. *AAVSO*Coma diameter (arc mins) *S*Degree of condensation *7*

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. *22 08* Decl. *-3 15* (*1950*)

Comet *Hall 82i*Date & decimal (UT) *1986 Jan 5.74*Observer *J D Shanklin*Location *Cambridge*Sky conditions, moonlight etc., *4 Rel 1 4 1/5 Thin hazy cloud clearing*Total magnitude of comet (m_1) *4.9*Instrument type *D*Method used *10*Aperture (cm) *8*

Comparison stars magnitudes

Focal ratio

*47, 53*Magnification *10*Source of comparison star mags. *AAVSO*Coma diameter (arc mins) *6*Degree of condensation *7*

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. *22 04* Decl. *-3 40* (*1950*)

Comet *Hale* 82c

Date & decimal (UT) 1986 Jan 6.75

Observer J D Shanklin

Location Cambridge

Sky conditions, moonlight etc., 7 R1 5/6

Total magnitude of comet (m_1) 4.9

Instrument type B

Method used 10

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio

47, 53

Magnification 10

Source of comparison star mags. AAUSO

Coma diameter (arc mins) 4.3

Degree of condensation 7.8

Principal tails: length 90

Position angle ($^{\circ}$) 070

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. 22 02 Decl. - 5 50 (1950)

Comet *Hall 82i* Date & decimal (UT) *1986 Jan 6.75*

Observer *J D Shull* Location *Cambridge*

Sky conditions, moonlight etc., *6 R1* *4³/₄/6*

~~Total~~ ^{Central} magnitude of comet (m_1) *5.8* Instrument type *R*

Method used *10* Aperture (cm) *20*

Comparison stars magnitudes *53, 63* Focal ratio *14*

Magnification *40*

Source of comparison star mags. *AAVSO*

Coma diameter (arc mins) Degree of condensation

Principal tails: length Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *120*

Approximate position and equinox: R.A. *22 02* Decl. *- 750* (*1950*)

Comet Hall 82i

Date & decimal (UT) 1986 Jan 10.74

Observer J D Shanklin

Location Cambridge

Sky conditions, moonlight etc., 6 RI 4k/6

Total magnitude of comet (m_1) 5.0

Instrument type D

Method used 10

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio

47 SJ

Magnification 20

Source of comparison star mags. AAUSO

Coma diameter (arc mins) 10

Degree of condensation 8

Principal tails: length 3°

Position angle ($^{\circ}$) 063

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. 21 54.4 Decl. -4 36 (1950)

Comet *Hall 82* :Date & decimal (UT) *1986 Jan 10.76*Observer *J D Shanklin*Location *Cambridge*Sky conditions, moonlight etc., *6 r1 4 1/2/6**Central*
Total magnitude of comet (m_1) *5.1*Instrument type *R*Method used *W*Aperture (cm) *20*

Comparison stars magnitudes

Focal ratio *14**47, 53*Magnification *40*Source of comparison star mags. *AAUSO*Coma diameter (arc mins) *4*Degree of condensation *6-7*Principal tails: length *45*Position angle ($^{\circ}$) *063*

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

*No features in coma or tail x120*Approximate position and equinox: R.A. *21 54.4* Decl. *- 4 36* (*1950*)

Comet *Hall 82 i*Date & decimal (UT) *1986 Jan 11.75*Observer *J D Shanklin*Location *Cambridge*Sky conditions, moonlight etc., *7 R1**5¹/₄/6¹/₄*Total magnitude of comet (m_1) *4.9*Instrument type *8*Method used *10*Aperture (cm) *8*

Comparison stars magnitudes

Focal ratio

*47, 53*Magnification *20*Source of comparison star mags. *AAVSO*Coma diameter (arc mins) *6.5*Degree of condensation *7-8*Principal tails: length *2°*Position angle ($^{\circ}$) *067*

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

*Visible to NE*Approximate position and equinox: R.A. *21 52* Decl. *-4 50* (*1950*)

Comet Hall 82:

Date & decimal (UT) 1986 Jan 14.75

Observer J D Shanklin

Location Cambridge

Sky conditions, moonlight etc., 4 Rel 1 3/5 $\frac{1}{2}$ Total magnitude of comet (m_1) 4.8

Instrument type B

Method used 10

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio

47, 53

Magnification 10

Source of comparison star mags. AAVSO

Coma diameter (arc mins) 4.3

Degree of condensation 7-8

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. 21 47 Decl. -5 20 (1950)

Comet Hall 82i

Date & decimal (UT) 1986 Jan 21.73

Observer J D Shanklin

Location Cambridge

Sky conditions, moonlight etc., 4 Rel 1 J/S

Total magnitude of comet (m_1) 4.1

Instrument type B

Method used 10

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio

29, 47

Magnification 20

Source of comparison star mags. AA 450

Coma diameter (arc mins) 5'0

Degree of condensation 7-8

Principal tails: length 60'

Position angle ($^\circ$) 062

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. 21 34 Decl. -6 30 (1950)

Comet *Hall 82i*Date & decimal (UT) *1986 Jan 21.74*Observer *J D Shanklin*Location *Cambridge*Sky conditions, moonlight etc., *4 Rel 1 32/54*Total magnitude of comet (m_1) *4.1*Instrument type *3*Method used *10*Aperture (cm) *8*

Comparison stars magnitudes

Focal ratio

*29, 47*Magnification *20*Source of comparison star mags. *AAVSO*Coma diameter (arc mins) *4'.0*Degree of condensation *8*Principal tails: length *60'*Position angle ($^{\circ}$) *068*

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. *21 21* Decl. *-6 55* (*1950*)

Comet Hall 82:

Observer J D Shanklin

Sky conditions, moonlight etc., 4 Rel 1

Total magnitude of comet (m_1) 4.1

Method used 10

Comparison stars magnitudes

29, 47

Source of comparison star mags. AAVSO

Coma diameter (arc mins) 5'.0

Principal tails: length

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. 21 29 Decl. -7 05 (1950)

Date & decimal (UT) 1986 Jan 24.73

Location Cambridge

76/5 Room, twilight

Instrument type 9

Aperture (cm) 8

Focal ratio.

Magnification 20

Degree of condensation 7

Position angle ($^{\circ}$)

Comet *Hall 82:*Date & decimal (UT) *1986 Jan 25 74*Observer *J D Shankli*Location *Cambridge*Sky conditions, moonlight etc., *1* *rel* *1* *3/4/4*Total magnitude of comet (m_1) *4.0*Instrument type *3*Method used *10*Aperture (cm) *8*

Comparison stars magnitudes

Focal ratio

*29, 47*Magnification *20*Source of comparison star mags. *AAVSO*Coma diameter (arc mins) *3*Degree of condensation *8*Principal tails: length *30'*Position angle ($^{\circ}$) *065*

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. *21 28* Decl. *-7 15* (*1950*)

Comet *P/Halley 1982i* Date & decimal (UT) *1985 Oct. 21. 15*

Observer *Roy. W. Lanther* Location *Walsgrave, Northamptonshire*

Sky conditions, moonlight etc., *good*

Total magnitude of comet (m_1) *9.7* Instrument type *Rfl.*

Method used *S* Aperture (cm) *20*

Comparison stars magnitudes Focal ratio *4*

*= *9.7_m* Magnification *35*

Source of comparison star mags. *AAVSO Y Junc. seq.*

Coma diameter (arc mins) *3* Degree of condensation *3*

Principal tails: length Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form
 for field sketch and other details. *Round coma, edges fairly well defined.
 condensation to sunward of centre.*

Approximate position and equinox: *R.A. 5^h 51^m Decl. + 21^o (1950)*

Comet P/Halley 1982 I

Observer Roy. W. Panther

Sky conditions, moonlight etc., good.

Total magnitude of comet (m_1) 8.5

Method used S

Comparison stars magnitudes

= * 8.5m

Source of comparison star mags. AAVSO

Coma diameter (arc mins) 13'

Principal tails: length

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *bicircular coma with diffuse edges.*

*central condensation*Approximate position and equinox: R.A. $5^h 00^m$ Decl. $+ 22^\circ$ (1950)

Date & decimal (UT) 1985 Nov. 5.93

Location *Walgrave, Northamptonshire.*Instrument type *Binocular*

Aperture (cm) 8

Focal ratio 14

Magnification 15

Degree of condensation 3

Position angle ($^\circ$)

Comet P/Halley 1982 i
 Observer Roy. W. Lanther
 Sky conditions, moonlight etc., good.

Total magnitude of comet (m_1) 7.6

Method used S

Comparison stars magnitudes

= * 7.6m

Source of comparison star mags. AAVSO

Coma diameter (arc mins) 10'

Principal tails: length

Date & decimal (UT) 1985 Nov. 12. 81

Location Walsgrave, Northamptonshire.

Instrument type Binocular

Aperture (cm) 8

Focal ratio 4

Magnification 11

Degree of condensation 4

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Circular coma, edges fairly well defined.
 Central condensation

Approximate position and equinox: R.A. $4^h 10^m$ Decl. $+ 22^{\circ}$ (1950.)

Comet P/Halley 1982i

Date & decimal (UT) 1985 Nov. 15.96

Observer Roy. W. Lanther

Location Walsgrave, Northamptonshire.

Sky conditions, moonlight etc., good.

Total magnitude of comet (m_1) 7.3

Instrument type Binocular

Method used S

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio 4

*6.6 (2) \approx (1) *7.6

Magnification 11

Source of comparison star mags. AAVSO

Coma diameter (arc mins) 9'

Degree of condensation 4

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Round coma, outer edge diffuse.

Broad central condensation

Approximate position and equinox: R.A. $3^h 50^m$ Decl. $+22^{\circ}$ (1950.)

Comet P / Halley 1982i

Date & decimal (UT) 1985 Nov. 27.82

Observer Roy. W. Lanther

Location Walgrave, Northamptonshire.

Sky conditions, moonlight etc., Full moon. Good sky.

Total magnitude of comet (m_1) 6.8

Instrument type Binocular

Method used S

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio 4

= +6.8m

Magnification 15.

Source of comparison star mags. A.A.V.S.C.

Coma diameter (arc mins) 9'

Degree of condensation H

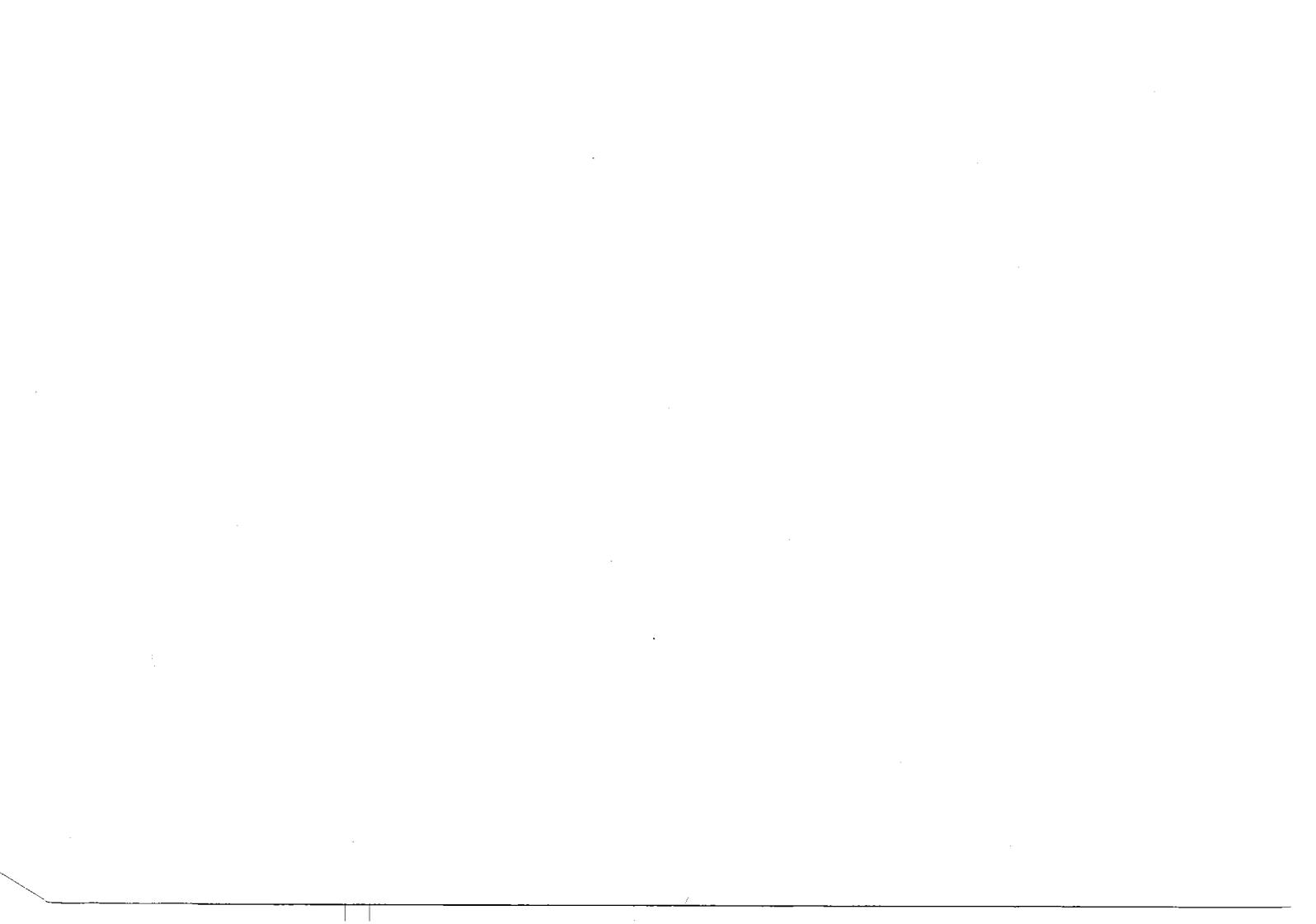
Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Circular coma, diffuse edge.

Central condensation

Approximate position and equinox: R.A. $2^h 00^m$ Decl. $+17^{\circ}$ (1950.)



Comet P/Halley 1982 i

Date & decimal (UT) 1985 Dec. 14.79

Observer Roy. W. Panther

Location Walsgrave, Northamptonshire.

Sky conditions, moonlight etc., good.

Total magnitude of comet (m_1) 5.9 ($M \times 50B$)

Instrument type Binocular

Method used S

Aperture (cm) 8

Comparison stars magnitudes = +5.9

Focal ratio 4

Magnification 15

Source of comparison star mags. AAVSO

Coma diameter (arc mins) $18' \times 16'$

Degree of condensation 6

Principal tails: length -

Position angle ($^\circ$) -

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Fairly sudden condensation to sunward of centre. Oval coma with fairly defined edges.

Approximate position and equinox: R.A. $23^h 16^m$ Decl. $+3^\circ$ (1950)

Comet P/ Halley 1982i

Date & decimal (UT) 1985 Dec. 18. 76

Observer Roy. W. Panther

Location Walgrave, Northamptonshire.

Sky conditions, moonlight etc., *Very good sky.
Half-moon.*Total magnitude of comet (m_1) 5.6Instrument type *Binocular*

Method used S

Aperture (cm) 8

Comparison stars magnitudes = *5.6

Focal ratio 4

Magnification 15

Source of comparison star mags. AAVSO

Coma diameter (arc mins) $13' \times 10'$

Degree of condensation 6

Principal tails: length -

Position angle ($^\circ$) -

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Oval coma. Broad condensation to sunward of centre.*

Approximate position and equinox: R.A. $22^h 56^m$ Decl. $+ 2^\circ$ (1950)

Comet *P/Halley 1982i* Date & decimal (UT) *1985 Dec. 27.82*

Observer *Roy. W. Panther* Location *Walgrove, Northamptonshire.*

Sky conditions, moonlight etc., *Fairly good sky.*
Full moon.

Total magnitude of comet (m_1) *5.8* Instrument type *Binocular*

Method used *S* Aperture (cm) *8*

Comparison stars magnitudes *= *5.8* Focal ratio *4*

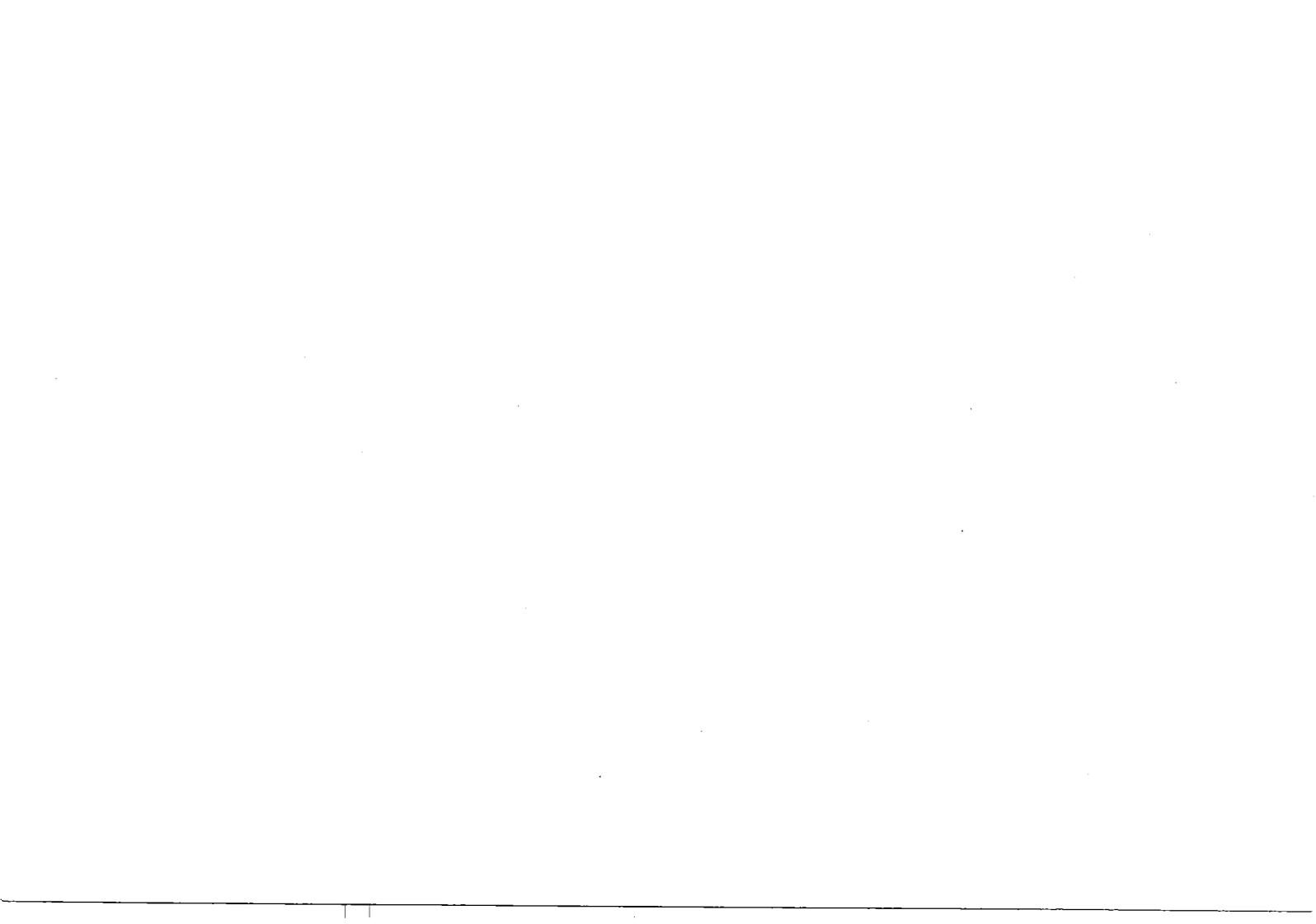
Source of comparison star mags. *AAVSO* Magnification *15*

Coma diameter (arc mins) *9' x 7'* Degree of condensation *7*

Principal tails: length *-* Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Well defined coma. Sudden sharp condensation*

Approximate position and equinox: R.A. *22^h 26^m* Decl. *-1^o* (*1950*)



Comet P/Halley 1982i

Date & decimal (UT) 1986 Jan 3.74

Observer Roy. W. Panther

Location Walgrave, Northamptonshire.

Sky conditions, moonlight etc., Fairly good.

Total magnitude of comet (m_1) 4.7

Instrument type Binocular

Method used S

Aperture (cm) 8

Comparison stars magnitudes = *4.7

Focal ratio 4

Magnification 15

Source of comparison star mags. AAVSO

Coma diameter (arc mins) 8'

Degree of condensation 7

Principal tails: length 22'

Position angle ($^{\circ}$) 50 $^{\circ}$

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Round well defined coma. Broad condensation to sharp centre. Broad faint fan tail.

Approximate position and equinox: R.A. 22^h 08^m Decl. - 4 $^{\circ}$ (1950.)

Comet P/Halley 1982i Date & decimal (UT) 1986 Jan 6.74
 Observer Roy. W. Panther Location Walgrave, Northamptonshire.
 Sky conditions, moonlight etc., *Good. Low twilight in West.*
 Total magnitude of comet (m_1) *4.7* Instrument type *Binoocular*
 Method used *S* Aperture (cm) *8*
 Comparison stars magnitudes *= 4.7* Focal ratio *4*
 Magnification *15*
 Source of comparison star mags. *AAVSO.*
 Coma diameter (arc mins) *5 1/2'* Degree of condensation *7*
 Principal tails: length *48'* Position angle ($^\circ$) *56^\circ*

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *biocular coma with well defined edges.*

Well marked central condensation to sharp centre. Broad faint featureless fan tail.

Approximate position and equinox: R.A. $22^h 02^m$ Decl. -4° (1950.)

Comet *P/Halley 1982 i*Date & decimal (UT) *1986 Jan 10.75*Observer *roy. W. Panther*Location *Walgrave, Northamptonshire.*Sky conditions, moonlight etc. *Fairly good.*Total magnitude of comet (m_1) *4.7.*Instrument type *Binocular.*Method used *S*Aperture (cm) *8*Comparison stars magnitudes *= *4.7*Focal ratio *4*Magnification *15*Source of comparison star mags. *AAVSO*Coma diameter (arc mins) *4'*Degree of condensation *8*Principal tails: length *30'*Position angle ($^\circ$) *58^\circ*

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. *Round well defined coma. Steep condensation to centre. Slender faint fan tail, angled 30° , with brighter southern edge.*Approximate position and equinox: R.A. *21^h 55^m* Decl. *-5^\circ* (1950.)

Comet P/Halley 1982c

Observer Roy. W. Johnston

Sky conditions, moonlight etc., *Moderate, bright moon in fac.*

Total magnitude of comet (m_1) 4.2

Method used S

Comparison stars magnitudes = * 4.2.

Source of comparison star mags. AA 50.

Magnification 15

Focal ratio H

Aperture (cm) 8

Instrument type *Refractor*

Date & decimal (UT) 1986 Jan. 15. 76
 Location *Widgrave, Northamptonshire.*

Coma diameter (arc mins) 6'

Principal tails: length 42'

Degree of condensation 8
 Position angle ($^\circ$) 50 $^\circ$

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Round well defined coma. Strong condensation. Faint fan tail, 30 $^\circ$ apex.*

Approximate position and equinox: R.A. 21 h 48 m Decl. - 6 $^\circ$ (1950.)

Comet P/Halley 1982*i*

Date & decimal (UT) 1986 Jan 19.77

Observer Roy. W. Panther.

Location Walsgrave, Northamptonshire.

Sky conditions, moonlight etc., *good. Half moon in
azi. E all 15° above SW.
horizon.*Total magnitude of comet (m_1)

4.2

Instrument type

Binocular

Method used

5

Aperture (cm)

8

Comparison stars magnitudes

= *4.2.

Focal ratio

4

Magnification

11.

Source of comparison star mags. AAVSO.

Coma diameter (arc mins)

6'

Degree of condensation

8

Principal tails: length

54'

Position angle ($^\circ$)

50°

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. *Circular well defined coma. Well condensed.
central condensation. Slender faint fan tail, apex angle 30°*

Approximate position and equinox:

R.A. 21^h 45^m

Decl. -6°

(1950)

Comet P/Halley 1982i

Date & decimal (UT) 1986 April 29.90

Observer Roy. W. Panther

Location Walgrave,

Sky conditions, moonlight etc., Fairly good.

Northamptonshire

Total magnitude of comet (m_1) 5.2

Instrument type Binocular

Method used S

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio 4

= *5.2

Magnification 15

Source of comparison star mags. AAVSO

Coma diameter (arc mins) $14' \times 10'$

Degree of condensation 5

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Large oval coma. Condensation to sunward.

Approximate position and equinox: R.A. $10^h 58^m$ Decl. -19° (1950.0)

Comet P/Halley 1982i

Date & decimal (UT) 1986 May 3. 89

Observer Roy. W. Panther

Location Malgrave,
Northamptonshire

Sky conditions, moonlight etc., Moderate

Total magnitude of comet (m_1) 5.6

Instrument type Binocular

Method used S

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio 4

*5.4 (1) & (1) *5.9.

Magnification 15

Source of comparison star mags. AAVSO

Coma diameter (arc mins) $10' \times 8'$

Degree of condensation 4

Principal tails: length

Position angle ($^\circ$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Broad condensation to sunward of centre.

Approximate position and equinox: R.A. $10^h 40^m$ Decl. -14° (1950.0)

Comet *P/Halley 1982 i* Date & decimal (UT) *1986 May 5 - 91*

Observer *Roy. W. Panther* Location *Walgrove,*
Northamptonshire.

Sky conditions, moonlight etc., *Very good.*

Total magnitude of comet (m_1) *5.4* Instrument type *Binocular*

Method used *S* Aperture (cm) *8*

Comparison stars magnitudes Focal ratio *4*
*= * 5.4_m* Magnification *15*

Source of comparison star mags. *AAVSO*

Coma diameter (arc mins) *18' x 11'* Degree of condensation *5*

Principal tails: length Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form
for field sketch and other details. *Broad condensation to sunward.*

Approximate position and equinox: R.A. *10^h 25^m* Decl. *-12^o* (*1950.0*)

Comet *P/ Halley 1982i* Date & decimal (UT) *1986 May 8.90*

Observer *Roy. W. Panther* Location *Malgrave,*
Northamptonshire

Sky conditions, moonlight etc., *low haze.*

Total magnitude of comet (m_1) *6.1* Instrument type *Binocular*

Method used *S* Aperture (cm) *8*

Comparison stars magnitudes Focal ratio *4*
= +6.1 Magnification *15*

Source of comparison star mags. *AAVSO*

Coma diameter (arc mins) *14' x 12'* Degree of condensation *4*

Principal tails: length Position angle ($^\circ$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form
for field sketch and other details. *Slightly oval coma, with diffuse edges.*
Large condensation to sunward.

Approximate position and equinox: R.A. $10^h 30^m$ Decl. -13° (1950.0)

Comet P/Halley 1982i Date & decimal (UT) 1986 May 15.91

Observer Roy W. Panther Location Walsgrave,
Northamptonshire.

Sky conditions, moonlight etc., *good. Crescent moon in line.*

Total magnitude of comet (m_1) 6.6 Instrument type Binocular

Method used S Aperture (cm) 8

Comparison stars magnitudes = *6.6m. Focal ratio 4

Source of comparison star mags. AA V 30 Magnification 15

Coma diameter (arc mins) $16' \times 12'$ Degree of condensation 3

Principal tails: length Position angle ($^\circ$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Oval diffuse coma. Large diffuse condensation to sunward.*

Approximate position and equinox: R.A. $10^h 30^m$ Decl. -13° (1950.0)

Comet P/Halley

Date & decimal (UT) 1985 November 5.9375d

Observer R. J. McKim

Location Oundle, Peterborough

Sky conditions, moonlight etc., last $\frac{1}{4}$ moon no problem, m. lim. n. eye = 5-6 in Taurus, 6 on zenithTotal magnitude of comet (m₁) (C) 2 (V) 1 (B)

Instrument type } 10 x 50 binoculars

Method used in-out = 6.8 m

Aperture (cm)

Comparison stars magnitudes C = 1.0 m

Focal ratio

B = 6.2 m

Magnification

Source of comparison star mags. SKYCAT 2000

Coma diameter (arc mins) 15'

Degree of condensation 4

Principal tails: length N/A

Position angle (°) N/A

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. (PTO) large, diffuse, circular, quite condensed.

Approximate position and equinox: R.A. 5h Decl. +22°N (1950)

Comet P/Halley

Date & decimal (UT) 1985 November 5.9410 d

Observer R. J. McKim

Location Oundle, Peterborough

Sky conditions, moonlight etc., last $\frac{1}{4}$ moon no problem, m. lim. n. eye = 5-6 in trams, 6 on zenithTotal magnitude of comet (m_1) N/AInstrument type } 7.5mm OG, x40
Aperture (cm) }
Focal ratio }
Magnification }

Method used N/A

Comparison stars magnitudes N/A

Source of comparison star mags. N/A

Coma diameter (arc mins) 16'

Degree of condensation 4(-5)

Principal tails: length N/A

Position angle ($^{\circ}$) N/A

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. (PTO) Large, diffuse, circular, quite condensed

Approximate position and equinox: R.A. 5h

Decl. +22 $^{\circ}$ N (1950)

Comet P/Halley

Date & decimal (UT) 1985 November 6.9479d

Observer R.J. McKim

Location Oundle, Peterborough

Sky conditions, moonlight etc., Some drifting cloud but m. lim. n-eye 6 on zenith

Total magnitude of comet (m₁) (D) = (V) = (E)

Method used in-out = 7.3 m

Instrument type

Aperture (cm)

Focal ratio

Magnification

} 10x50 binoculars

Comparison stars magnitudes D = 7.4 m

E = 7.3 m

Source of comparison star mags. SKYCAT 2000.

Coma diameter (arc mins) 15'

Degree of condensation 4

Principal tails: length N/A

Position angle (°) N/A

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Circular, diffuse, quite condensed. Clearly brighter than ephemeris magnitude (of ~8.3 m).

Approximate position and equinox: R.A.

5h

Decl. +22°N (1950)

Comet

P/Kalley

Date & decimal (UT) 1985 November 9.8438 d

Observer

R.J. McKim

Location Oundle, Peterborough

Sky conditions, moonlight etc., Excellent,
m. lim. n. eye 6 on zenithTotal magnitude of comet (m_1) (A) 3 (V) 1 (B)

Method used in-out = 8.2 m

Comparison stars magnitudes A = 8.9 m

B = 8.0 m

Instrument type

Aperture (cm)

Focal ratio

Magnification

10x50 binoculars

Source of comparison star mags. A SAO

B Sky cat 2000

Coma diameter (arc mins) 18'

Degree of condensation (4-)5

Principal tails: length N/A

Position angle ($^{\circ}$) N/A

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Moderately condensed; at first I thought the coma elongated but with 3" OG x 40 this was due to 2 faint stars p. the coma.

Approximate position and equinox:

R.A.

 $4\frac{1}{2} h$

Decl.

 $+22^{\circ} N (1950)$

Comet P/Halley

Date & decimal (UT) 1985 November 10.8785d

Observer N. J. McKim

Location Oundle, Peterborough

Sky conditions, moonlight etc., Excellent,
m. lim-n eye 6 on zenith

Total magnitude of comet (m₁) (B) 1 (V) 2 (A)

Method used in-ovt = 7.7 m

Instrument type

Aperture (cm)

Focal ratio

Magnification

} 10x50 Binoculars

Comparison stars magnitudes B = 8.7 m

A = 5.7 m

Source of comparison star mags. A Sky cat

B, SAG cat (uncertain identification).

Coma diameter (arc mins) 15'

Degree of condensation 4

Principal tails: length N/A

Position angle (°) (N/A)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Comet seems to be perceptibly brightening. No tail, circular, quite condensed, diffuse.

Approximate position and equinox:

R.A. 4 1/2 h

Decl. +22°N (1950)

Comet P/Halley

Observer R. J. McKim

Sky conditions, moonlight etc., Excellent,
m. lim. n. eye 6 on zenith

Total magnitude of comet (m_1)

Method used

Comparison stars magnitudes

Source of comparison star mags.

Coma diameter (arc mins) Not measured

Principal tails: length N/A

Not estimated
but seemed
 $\sim 1/2$ mag fainter
than on Nov.
10.8785d
(Scarcely visible in
10x50 binoculars)

Date & decimal (UT) 1985 November 11.8542d

Location Oundle, Peterborough

Instrument type

Aperture (cm) } 10 cm OG x 40

Focal ratio }

Magnification }

Degree of condensation 5

Position angle ($^\circ$) N/A

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Too many observatory visitors for measurement of mag, diam.

Circular, condensed, diffuse again.

Approximate position and equinox: R.A. $4\frac{1}{2}h$ Decl. $+22^\circ N$ (1950)

(NO SKETCH OVERLEAF)

Comet

P/Halley

Date & decimal (UT) 1985 November 12.9304 d

Observer

R. J. McKim

Location Oundle, Peterborough

Sky conditions, moonlight etc., Superbly clear

Sky. m. lim n-eye 6 on Zenith
 Total magnitude of comet (m_1) (A) 1 (V) 2 (B)
 Method used in-out = 6.9 m

Instrument type

Aperture (cm)

Focal ratio

Magnification

} 10x50 binoculars

Comparison stars magnitudes A = 7.5 m
 B = 5.8 m

Source of comparison star mags.

A = SAT const.

B = Iltis chart 58

Coma diameter (arc mins)

16'

Degree of condensation

5

Principal tails: length

N/A

Position angle ($^{\circ}$)

N/A

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Circular, condensed, brighter than on Nov. 11.8542 d
 (on which date it seemed to have faded), indeed, as bright as I have ever seen it.

Approximate position and equinox:

R.A. 4h

Decl. +22° N (1950)

Comet

P/Halley

Date & decimal (UT) 1985 November 13. 9062 d

Observer

R. J. McKim

Location Orndle, Peterborough

Sky conditions, moonlight etc., Excellent,
m. in. zen. = 6Total magnitude of comet (m_1) (A) 2 (V) 1 (B)

Method used

in-out

= 6.5 m

Instrument type

Aperture (cm)

Focal ratio

Magnification

10x50 binoculars

Comparison stars magnitudes A = 7.1 m

B = 6.2 m

Source of comparison star mags. SKYCAT 2500.

Coma diameter (arc mins)

16'

Degree of condensation

5

Principal tails: length

N/A

Position angle ($^{\circ}$)

N/A

General description of coma shape, nucleus, jets, tails etc. Use reverse of form
for field sketch and other details. Circular, condensed, diffuse. (Not recorded

with 30s exp. on FP4 b/w film with 50mm f/2 lens)

Approximate position and equinox:

R.A.

4h

Decl.

+21 $^{\circ}$ N (1950)

Comet P/ Halley
 Observer R. J. McKim
 Sky conditions, moonlight etc., some cloud
 near, but n-eye in lim. zen. = 6
 Total magnitude of comet (m_1)
 Method used
 Comparison stars magnitudes
 Source of comparison star mags.
 Coma diameter (arc mins) 6'
 Principal tails: length N/A

} not estimated

Date & decimal (UT) 1985 November 15.89588
 Location Oundle, Peterborough
 Instrument type
 Aperture (cm) } 10cm OG X40
 Focal ratio }
 Magnification }
 Degree of condensation 6
 Position angle ($^\circ$) N/A

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Circular & diffuse; I seem to be seeing only the inner coma with the 4" OG. Still NOT visible with naked eye. Circular, diffuse, condensed.

Approximate position and equinox: R.A. 4h Decl. +21° N (1950)

(NO SKETCH OVERLEAF)

Comet P/Halley
 Observer R. J. McKim
 Sky conditions, moonlight etc.,
 circa 5° S of Halley. Clear
 Total magnitude of comet (m_1)
 Method used
 Comparison stars magnitudes
 Source of comparison star mags.
 Coma diameter (arc mins)
 Principal tails: length

Moon 1d from
 full and
 sky.
 Comet
 not
 found
 with this
 instrument!

1985
 Date & decimal (UT) November 26.7708 d
 Location Cundle, Peterborough
 (cloudy evenings since 15.8958 d)
 Instrument type
 Aperture (cm)
 Focal ratio
 Magnification } 10x50 binoculars
 Degree of condensation N/A
 Position angle (°) N/A

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. N/A

Approximate position and equinox: R.A. 2h Decl. +17° N (1950)

Comet

P/Halley

Date & decimal (UT) 1985 November 28.8750 d

Observer

R. J. McKim

Location

Oundle, Peterborough

Sky conditions, moonlight etc., moon present but well away; $m_{lim} = 5$ in vicinity of comet (n. eye)Total magnitude of comet (m_1) (V) = 10 | Piscium

Method used in-out

Comparison stars magnitudes 10 | Piscium = 6.2 m

Instrument type

Aperture (cm)

Focal ratio

Magnification

} 10x50 binoculars

Source of comparison star mags. Sky cat 2200

Coma diameter (arc mins)

17'

Degree of condensation

4-5

Principal tails: length

N/A

Position angle ($^{\circ}$)

N/A

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Coma easy in 10x50's; must still be brightening to be seen in moonlight. Circular, condensed, diffuse.

Approximate position and equinox:

R.A.

2h

Decl.

+15° N

(1950)

Comet P/ Halley
Observer R. J. McKim

Date & decimal (UT) 1985 December 2.7708 d

Location Oundle, Peterborough

Sky conditions, moonlight etc., Some partly cloud,
m. lim x 5 (n-eye) in comet's vicinity.

Total magnitude of comet (m_1) $(V) = (A) - \frac{1}{4}$

Method used in-out = 5.2 m

Comparison stars magnitudes A = 5.5 m

Instrument type }
Aperture (cm) } 10x50 binoculars
Focal ratio }
Magnification }

Source of comparison star mags. Sky Cat 2000

Coma diameter (arc mins) 19'

Degree of condensation 5

Principal tails: length N/A

Position angle (°) N/A

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Quite condensed, circular, diffuse. Brighter than aver but still unspectacular; a small but definite coma diam. increase is revealed by m successive observations.

Approximate position and equinox: R.A. 1h

Decl. +10° N (1950)

Comet P/halley

Observer R. J. McKim

Sky conditions, moonlight etc., V. good

Total magnitude of comet (m_1)

Method used

Comparison stars magnitudes

Source of comparison star mags.

Coma diameter (arc mins) 10'

Principal tails: length N/A

NOT estimated
(all of the f.o.v. stars too faint to use!)

Date & decimal (UT) 1985 December 3. 7812 d

Location Oundle, Peterborough

Instrument type

Aperture (cm) } 10 cm OG X40

Focal ratio

Magnification

Degree of condensation 5

Position angle ($^{\circ}$) N/A

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Again I believe the telescope only shows the central coma. Comet shown circular, diffuse edges, & condensed.

Approximate position and equinox: R.A. 1h Decl. +10 $^{\circ}$ N (1950)

Comet

P/ Halley

Date & decimal (UT) 1985 December 3.8403 d

Observer

R. J. McKim

Location Aundley, Peterborough

Sky conditions, moonlight etc., V. good;

m. lim. n. eye ≈ 6 .Total magnitude of comet (m_1) (V) \approx (A) = 5.5^m

Method used in-out

Comparison stars magnitudes $A = 5.5^m$

Instrument type

Aperture (cm)

Focal ratio

Magnification

} 10x50 binoculars

Source of comparison star mags. Sky Cat 2000

Coma diameter (arc mins) 22'

Degree of condensation 5

Principal tails: length N/A

Position angle ($^\circ$) N/A

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Comet probably over a v. faint star (seen earlier, Dec.

3.7812 d with 4" of x40). Strong condensation. Note increase in coma size as comet passes
close to the Earth. * Still circular, with diffuse edges.

Approximate position and equinox: R.A. 1h Decl. +10°N (1950)

* Continued:

Comet successfully photographed on FP4 film 125 ASA, 50mm Zenit EM SLRC
 F/2 lens: 20h10m 4m00s unguided - trailed im. of comet identifiable.
 21h45m 2m35s guided on } - "fuzzy" star.
 21h45m \pm 1m40s eq. mount }

Comet P/Halley
 Observer N.J. McKim
 Sky conditions, moonlight etc., Excellent;
 m. lim. zenith n. eye = 6
 Total magnitude of comet (m₁) (C) 1(V) 1(A) \$
 Method used in-out = 5.7 m
 Comparison stars magnitudes C = 6.0 m
 A = 5.5 m

Date & decimal (UT) 1985 December 5.8646 d
 Location Oundle, Peterborough

Instrument type }
 Aperture (cm) } 10 x 50 Binoculars
 Focal ratio }
 Magnification }

Source of comparison star mags. A sky cut 1000

Coma diameter (arc mins) 25' @ 1100 chart 54.
 Degree of condensation 5

Principal tails: length N/A
 Position angle (°) N/A

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Circular, quite condensed - hazier than ever. Maybe 30' by a.v. but only 25' with certainty. I am sure that I * could see the comet with the NAKED EYE tonight for the first time, as a slightly nebulous patch, not held steady & very seen with averted vision (a.v.).

Approximate position and equinox: R.A. Oh Decl. +9°N (1950)

Comet P/Halley

Observer R. J. McKim

Sky conditions, moonlight etc., Good sky —
in lim. n. eye ≈ 5 near comet.

Total magnitude of comet (m_1) (B) (V) (A) = 5.9 m

Method used in-out

Comparison stars magnitudes B = 6.3 m
A = 5.6 m

Source of comparison star mags. Sky Cat 2000.

Coma diameter (arc mins) 20'

Principal tails: length N/A

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Not quite confident in seeing P/Halley with unaided eye. Coma circular, condensed, diffuse and without other detail in 10x50's, ab. with 3" OG x 40.

Approximate position and equinox: R.A. Oh Decl. +9° N (1950)

Date & decimal (UT) 1985 December 7.7674 d

Location Dundle, Peterborough

Instrument type }
Aperture (cm) } 10x50 binoculars
Focal ratio }
Magnification }

Degree of condensation 5-6

Position angle (°) N/A

(17)

Comet

P/Halley

Date & decimal (UT) 1985 December 18.7083d

Observer

R. J. Melim

Location Colchester, Essex

Sky conditions, moonlight etc., 1st $\frac{1}{4}$ moon nearby

but otherwise v. clear sky.

Total magnitude of comet (m_1) Not attempted

Instrument type

Method used

—

Aperture (cm)

10x50 binoculars

Comparison stars magnitudes

—

Focal ratio

Magnification

Source of comparison star mags. —

Coma diameter (arc mins) Approx. 20'

Degree of condensation Not estimated

Principal tails: length Not seen with
binocularsPosition angle ($^{\circ}$)General description of coma shape, nucleus, jets, tails etc. Use reverse of form
for field sketch and other details. Diffuse, circular.

Approximate position and equinox:

R.A. 23h Decl. +3 $^{\circ}$ N (1950)

(NO SKETCH OVERLEAF)

Comet

P/Halley

Date & decimal (UT) 1985 December 18.7170 d

Observer

R.J. McInim

Location Colchester, Essex.

Sky conditions, moonlight etc., 1st $\frac{1}{4}$ moon nearby

but otherwise v. clear sky.

Total magnitude of comet (m_1) Not attempted

Instrument type Newtonian reflector

Method used —

Aperture (cm) 21.6

Comparison stars magnitudes —

Focal ratio 7.6

Source of comparison star mags. —

Magnification 65x, 135xComa diameter (arc mins) $\sim 12'$ Degree of condensation 5-6

Principal tails: length

PA $45^\circ \sim 13'$ (faint)
PA $105^\circ \sim 19'$ (more certain)Position angle ($^\circ$) See drawing —
approx. 45° and 105° .

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Definitely something of a tail now visible - hard to say exactly what the field at $\times 135$. Preferred $135\times$ to $\times 65$ as, for a little too light at $\times 65$ due to moon. The f. side extended differently at "2.30 p.m.", out of the fov, and, less distinctly, at "4.30 p.m.". Coma bright, tails v. much fainter.

Approximate position and equinox: R.A. 28^h Decl. $+3^\circ N$ (1950)

Continued - Comet, in spite of proximity, (to moon) almost certainly glimpsed with naked eye - v. faint & diffuse.

Comet P/Halley

Date & decimal (UT) 1985 December 27.7465d

Observer R. J. McKim

Location Colchester, Essex.

Sky conditions, moonlight etc., $M_{lim} n. eye \sim 4\frac{1}{2}$, full moon 10-15° high in E, some clouds about.

Total magnitude of comet (m_1) Not estimated

Instrument type

Method used — this evening

Aperture (cm)

} 10x50 binoculars

Comparison stars magnitudes N/A

Focal ratio

Magnification

Source of comparison star mags. N/A

Coma diameter (arc mins) 8'

Degree of condensation 5

Principal tails: length N/A

Position angle (°) —

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Quite bright, but mag. not est'd. looked circular, not seen with naked eye. No tail detected. Diffuse, slightly condensed.

Approximate position and equinox: R.A. 22h Decl. 0° (1950)

(NO SKETCH OVERLEAF)

Comet

P/Halley

Observer

R. J. McKim

Date & decimal (UT) 1985 December 29.7326d

Location

Colchester, Essex.

Sky conditions, moonlight etc., V. clear indeed.
 Min zenith ~ 6 , near comet ~ 5 . No moon. Excellent sky.

Total magnitude of comet $(m_1) \times (2) \times (2) \times \text{Aquari}$

Method used in-out = 5.0 m

Comparison stars magnitudes $X = 6.1$ m γ Aquari = 3.8 m

Source of comparison star mags. IHW Ch 100.

Coma diameter (arc mins) 9'

Principal tails: length See sketch overleaf.

Instrument type

Aperture (cm)

Focal ratio

Magnification

} 10x50 binoculars

Degree of condensation 5-6

Position angle ($^{\circ}$) See sketch overleaf.

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Comet not seen with naked eye. The comet now seems more condensed than when last well seen a few years ago - now further from the Earth. The coma is an elongated in a N/S direction - the first indication, tail as far as my binocular obs. go. See sketch, Pto.

Approximate position and equinox:

R.A. 22h

Decl. $-1^{\circ} S$ (1950)

Comet

P/Halley

Date & decimal (UT) 1985 December 29.7292d

Observer

R. J. McKim

Location Colchester, Essex.

Sky conditions, moonlight etc., V. clear indeed.

w. lim. zenith ~ 6 , near comet ~ 5 . No moon. Excell. sky.Total magnitude of comet (m_1) Not estimated

Instrument type Newtonian reflector

Method used

N/A

Aperture (cm)

21.6 cm

Comparison stars magnitudes

N/A

Focal ratio

7.6

Magnification

 $\times 65, \times 135$

Source of comparison star mags. N/A

Coma diameter (arc mins)

7'

Degree of condensation 6

Principal tails: length

 $\sim 9'$ perhaps?Position angle ($^\circ$) $\sim 90^\circ$

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Suggestions of a short, fan-shaped tail - not quite sure

of the structure, but some evidence of tail definite! Maybe a slight yellowish tinge to the coma?

Looked br. & cond'd, definitely elongated in J. direction, with c. of brightness displaced in the p. direction.

Approximate position and equinox:

R.A.

22h

Decl.

-15 (1950)

Comet

P/Halley

Observer

R. J. McKim

Sky conditions, moonlight etc., VG—

m lim Zenith $\sim 5\frac{1}{2}$ (n-eye)Total magnitude of comet (m_1) $V = \sigma Aq. + 0.2^m$

Method used in-out

 $= 4.5^m$ Comparison stars magnitudes $\sigma Aq. = 4.7$ (ie, comet 0.2^m fainter than σ)

Source of comparison star mags. HW Ch 4A

Coma diameter (arc mins)

11'

Principal tails: length

see diagram overleaf

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details.

Coma definitely elongated into a tail. Brighter and more condensed in the p-portion

Approximate position and equinox:

R.A.

22h

Decl.

 $-3^{\circ}5'$ (1950)

Date & decimal (UT)

1986 January 3.736d

Location

Wentworth College,
University of York

Instrument type

Aperture (cm)

Focal ratio

Magnification

} 10x50 binoculars

Degree of condensation

5

Position angle ($^{\circ}$)

see diagram overleaf

Comet

P/Halley

Date & decimal (UT) 1986 January 6.7396d

Observer

R. J. McKim

Location Aundle, Peterborough

Sky conditions, moonlight etc., Excellent.

Sky fully dark, the comet a little low at this hour now!

Total magnitude of comet (m_1) 32(3)V(2) σ Aq. = 5.0 m

Method used in-out

Instrument type

Aperture (cm)

Focal ratio

Magnification

} 10x50 binoculars

Comparison stars magnitudes 32 Aq. = 5.3 m

 σ Aq. = 4.7 m

Source of comparison star mags. HR 4444

Coma diameter (arc mins)

11'

Degree of condensation

6-7

Principal tails: length

80' from sketch

Position angle ($^\circ$) see drawing, Pto \rightarrow

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Pretty condensed. Not seen with n. eye. V. faint tail by averted vision. I probably only saw part of its length. Elongated apparently N of to \bar{S} P.

Approximate position and equinox:

R.A. 22h Decl. - 3 $^\circ$ S (1950)

(24)

Comet P/Halley

Observer R. S. McKim

Sky conditions, moonlight etc., N-eye lim.
mag. ~5 zenith / ~4 near comet. Low but g. clear sky.Total magnitude of comet (m_1) $V \approx \sigma$ Aquarii
= 4.7 m

Method used in-out

Comparison stars magnitudes σ Aq. = 4.7 m

Source of comparison star mags. (HW C-4A)

Coma diameter (arc mins) 11'

Principal tails: length Not measured

General description of coma shape, nucleus, jets, tails etc. Use reverse of form
for field sketch and other details.Brighter, diffuse, definitely elongated coma in
the same direction as recent observations.
Did not see a tail as such, however, tonight.

Approximate position and equinox:

R.A. 22h Decl. -4 S (1950)

Date & decimal (UT) 1986 January 10.7430d

Location Oundle, Peterborough

Instrument type

Aperture (cm)

Focal ratio

Magnification

} 10x50 binoculars

Degree of condensation 6

Position angle ($^{\circ}$) Not measured

(NO SKETCH OVERLEAF)

Comet

P/Halley

Date & decimal (UT) 1986 January 10.7500

Observer

R. J. McKim

Location

Aundley, Peterborough

Sky conditions, moonlight etc., N. eye lim. mag.
~5 zenith / ~4 nr. comet. low but good clear sky.Total magnitude of comet (m_1) *not estimated*

Instrument type

Refractor

Method used

N/A

Aperture (cm)

10 cm

Comparison stars magnitudes

N/A

Focal ratio

-

Magnification

~X 40 and higher.

Source of comparison star mags. N/A

Coma diameter (arc mins)

9'

Degree of condensation

7-8

Principal tails: length

47' from drawing

Position angle ($^{\circ}$)~70 $^{\circ}$ General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Superb view. Best so far.

Approximate position and equinox:

R.A.

22h

Decl.

-4 $^{\circ}$ 5 (1950)

Comet

P/halley

Date & decimal (UT) 1986 January 11.7500d

Observer

N.J. McKim

Location

Aunde, Peterborough

Sky conditions, moonlight etc., Cloudless, v.

transparent. min 6 zenith n/eye, ~5^m nr. Comet. 5.21-Total magnitude of comet (m_1) 28 Aq. (2) V(1) 32 Aq. Instrument type

Method used in-out

28 Aquarii = 5.6^m Aperture (cm)Comparison stars magnitudes 32 Aquarii = 5.3^m Focal ratio

Magnification

} 10x50 binoculars

Source of comparison star mags. Sky Cat 2000.

Coma diameter (arc mins)

11' estimated

Degree of condensation

6

Principal tails: length

30' estimated.

Position angle (°)

—

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Definite tail seen, est. 30' long, certainly < 60' (1°).

Coma diam. approx. as last night. Coma pear-shaped, elong. in same P.A. as when last obs'd. Could just see comet with n/eye & st. averted n/eye.

Approximate position and equinox:

R.A.

22h

Decl.

-5° S

(1950)

(NO SKETCH OVERLEAF)

Comet

P/Halley

Observer

R.J. McKim

Sky conditions, moonlight etc., Cloudless, v.
transparent. m lim 6 zenith n/eye, ~5m near comet.

Total magnitude of comet (m_1) Not est'd.

Method used

N/A

Comparison stars magnitudes

N/A

Source of comparison star mags. N/A

Coma diameter (arc mins) 8'

Principal tails: length 44'

Date & decimal (UT) 1986 January 11.7535d

Location

Aunde, Peterborough

Instrument type

Refractor

Aperture (cm)

10 cm

Focal ratio

Magnification

~x 40 and higher

Degree of condensation

8

Position angle ($^{\circ}$)~80 $^{\circ}$

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Excellent view, equal to last higher. Tiny, starlike nucleus, 1' dia. or less, not noticeably enlarged at higher powers. Tail was quite bright and obvious for some 12', rest (to 44' total) less...

Approximate position and equinox:

R.A.

22h

Decl.

-5 $^{\circ}$ 5 (1950)

(continued) .. obvious. The p. part of the coma was brighter. (P to for diag. + sketches). The coma of past seemed of a slightly different shape to when seen last night. Tail was again narrow and straight, narrowest at the f. end. Condition of obs. = to the 10th. Color white, though I suspected a very diffuse yellowish tint at low power (x40).

Comet

P/Nealey

Observer

R. J. McKim

Date & decimal (UT)

1986 January 21.7500

Location

Oundle, Peterborough

Sky conditions, moonlight etc.

cloud - a little haze near Nealey. ^{Much scattered} ^{Gi Vran moon, but too far off to be a nuisance.}

Total magnitude of comet (m_1)

$\epsilon(3)V(2)\beta$ Aquarii
= 3.17 m

Method used

in-out

Comparison stars magnitudes

α Aquarii = 4.7 m
 β Aquarii = 2.9 m

Source of comparison star mags.

Sky Cat 2000

Coma diameter (arc mins)

8' (4' with 10cm OG x40)

Degree of condensation

8 (6 with 10x50's)

Principal tails: length

not measured, as haze wd. have interfered - about 20% of the tail seen...

Position angle ($^{\circ}$)60-70 $^{\circ}$ estimated

General description of coma shape, nucleus, jets, tails etc.

Use reverse of form for field sketch and other details.

Very condensed - with a small diffuse coma and a faint tail at the P.A. given above.

Approximate position and equinox:

R.A. 21 $\frac{1}{2}$ h Decl. -6 $^{\circ}$ S (1950)

(NO DRAWING OVERLEAF)

Comet P/Kalley

Date & decimal (UT) 1986 Jan. 23. 7500 d

Observer R. J. McKim

Location *Mundle*, Peterborough

Sky conditions, moonlight etc., *VG but twilight and low altitude.*

Total magnitude of comet (m₁) $\xi(3) \vee(2) / \beta$ Aquarii
Method used *in-out* = 3.7 m

Instrument type } 10x50 binoculars
Aperture (cm) }
Focal ratio } (also similar new
Magnification } 4"0G, x4.0

Comparison stars magnitudes ξ Aq. = 4.07 m
 β Aq. = 2.09 m

Source of comparison star mags. *Skycat 2000*

Coma diameter (arc mins) 8' (*rough*)

Degree of condensation 7

Principal tails: length *Elongation of coma seen but tail length not estimated*

Position angle (°) *Not measured*

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Highly condensed, diffuse edge, elongation in N of direction to tail but sky too light to see more than the start of the tail.*

Approximate position and equinox: R.A. 21½ h Decl. - 7° S (1950)

(No DRAWING OVERLEAF)

Comet

P/Halley

Date & decimal (UT) 1986 Jan. 25, 7500 d

Observer

R. J. McKim

Location *Cundie, Peterborough*Sky conditions, moonlight etc., *VB but twilight and low altitude*Total magnitude of comet (m_1) *β Aquarii + 1.0^m*Method used *in-out (estimate)* \Rightarrow *3.9^m*Comparison stars magnitudes *β Aq. = 2.9^m*

Instrument type

Aperture (cm)

Focal ratio

Magnification

10x50 binocs.

(except where stated)

Source of comparison star mags. *Sky cat 2000 faint*Coma diameter (arc mins) *4' (estimate)*Degree of condensation *7 (8 with 4" OG x 40)*Principal tails: length *Elongation of coma seen but tail length not estimated.*Position angle ($^{\circ}$) *not measured, but seems to be decreasing.*General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Highly condensed, diffuse edges, elong. in N of direction to tail but sky too bright to see more than the start of the tail.*Approximate position and equinox: R.A. *21 $\frac{1}{2}$ h* Decl. *- 7 $^{\circ}$ 5' 1950*NB Last good pre-perihelion obs.

(NO DRAWING OVERLEAF)

Comet

P/Halley

Date & decimal (UT) 1986 Jan. 26.7500d

Observer

R. J. McKim

Location

Aundle, Peterborough

Sky conditions, moonlight etc., haze, low alt.

Total magnitude of comet (m_1) N/A

Instrument type

Method used

Aperture (cm)

Comparison stars magnitudes

Focal ratio

Magnification

Source of comparison star mags.

N/A

Coma diameter (arc mins) Similar to obs. 30

Degree of condensation

7-8

Principal tails: length not seen

Position angle ($^\circ$) NOT measured, but less than in obs. 30.

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Poor view - size & brightness cd. not be measured in obtusive twilight sky. Suggestion of a tail near PA $\approx 0^\circ$. (\therefore No value!)

Approximate position and equinox:

R.A. $21^{\frac{1}{2}}h$ Decl. $-7^\circ S$ (1950)NB

Last pre-perihelion view.

(NO DRAWING OVERLEAF)

Comet

P/Halley

Date & decimal (UT) 1986 April 5.083d

Observer

R. J. McKim

Location Los Cristianos, Tenerife, Spain

Sky conditions, moonlight etc.

Transp. but drifting cloud

Total magnitude of comet (m_1) n/e

Method used

n/e

Instrument type

10x50 binoculars

Aperture (cm)

Focal ratio

Magnification

Comparison stars magnitudes n/e

Source of comparison star mags. n/e

Coma diameter (arc mins) $\sim 30'$

Degree of condensation n/e

Principal tails: length n/v

Position angle ($^\circ$) n/e

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

large fuzzy patch but detailed obs. not possible

Approximate position and equinox:

R.A.

h

m

Decl.

 $^\circ$

(1950)

)

Comet P/Halley
 Observer R. J. McIlrim
 Sky conditions, moonlight etc.,
 VG. No moon.
 Total magnitude of comet (m_1) $V \approx \eta$ Sco = 3.3^m
 Method used in-out
 Comparison stars magnitudes η Sco = 3.3^m*
 Source of comparison star mags. HW/BAA
 Coma diameter (arc mins) 15'
 Principal tails: length 240' (by a.v.; closer to 180' by direct vision)
 General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Nucl. v. sm. & br. Coma large & diffuse & much br. than the tail. Head of comet has a slight yellowish hue.
 Tail is v. broad, $\sim \frac{1}{2}^\circ$ wide at max. and fades out. Photos obtained with 50mm SLRC.
 Approximate position and equinox: R.A. h m Decl. (1950)

Date & decimal (UT) 1986 April 6.174 d
 Location Los Cristianos, Tenerife, Spain
 Instrument type } 10x50 binoculars
 Aperture (cm) } & naked eye.
 Focal ratio }
 Magnification }

Degree of condensation 6
 Position angle ($^\circ$) See sketch. Ca. 120°
 Model it to be 300?

* Magnitude of nucleus judged to be 4-4.5^m, alone.

[PTO]

Comet P/Halley
 Observer R. J. McKim
 Sky conditions, moonlight etc. VG. No moon. Seeing III.
 Total magnitude of comet (m_1) n/e
 Method used n/e
 Comparison stars magnitudes n/e

Date & decimal (UT) 1986 April 6.152 d & 6.257 d
 Location Los Cristianos, Tenerife, Spain
 Instrument type Newtonian reflector
 Aperture (cm) 21.6 cm
 Focal ratio 7.6
 Magnification X65/130/232

Source of comparison star mags. n/e
 Coma diameter (arc mins) 9' (x65)
 Principal tails: length n/e

Degree of condensation 6-7
 Position angle ($^\circ$) As in Obs. (33)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Coma well defined in solar direcⁿ but fades quickly in opp. dir.
 Broad sunward jet seen, a few X longer than the nucleus width. Jet ~ 1" long. Jet a little more intense at its edges - angle between edges ~ 45°.
 Approximate position and equinox: R.A. h m Decl. $^\circ$ (1950)

[PTO]

Comet

P/ Halley

Date & decimal (UT) 1986 April 7.177 d

Observer

R. J. McKim

Location

Los Cristianos, Tenerife, Spain

Sky conditions, moonlight etc.,

V6. No moon.

Total magnitude of comet (m_1) $V \approx \eta$ Sco = 3.3^m

Instrument type

Method used

in-out

Aperture (cm)

Comparison stars magnitudes

 η Sco = 3.3^m *

Focal ratio

Magnification

} 10x50 binoculars
& naked eye

Source of comparison star mags. IHW/BAA

Coma diameter (arc mins)

20'

Degree of condensation

6

Principal tails: length

180-210'

Position angle (°) See sketch. Ca. 120°

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Similar to April 6.174d, form (33), but tail is wider & shonier, up to 1-1½° wide at limit of vision. N edge of coma diffuse in tail, S edge of tail seems to be sharper.

Approximate position and equinox:

R.A.

h

m Decl.

(1950)

* Again, I thought the nuclear magnitude alone was 4-4.5^m, approx.

[P.T.O.]

Comet

P/Halley

Date & decimal (UT)

1986 April 7.177d

Observer

R. J. McKim

Location

Los Cristianos, Tenerife, Spain

Sky conditions, moonlight etc.,

V.G. No moon. Seeing III.

Total magnitude of comet (m_1)

n/e

Instrument type

Newtonian reflector

Method used

n/e

Aperture (cm)

21.6 cm

Comparison stars magnitudes

n/e

Focal ratio

7.6

Magnification

 $\times 65/130/232$

Source of comparison star mags.

n/e

Coma diameter (arc mins)

18-22' ($\times 65/130$)

Degree of condensation

6

Principal tails: length

n/e

Position angle ($^\circ$)

As in obs. (35)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Diffuse sunward jet still present but less broad than on April 6.152/6.257d/obs (34). I thought the nucleus somewhat less sharply condensed today.

Approximate position and equinox:

R.A.

h

m Decl.

 $^\circ$

(1950)

[PTO]

Comet

P/Kalley

Observer

R. J. McKim

Sky conditions, moonlight etc.,

V.G. No moon. Superbly transparent.

Total magnitude of comet (m_1)3-3.5^m *

Method used

n-ovt

Comparison stars magnitudes various

Source of comparison star mags. BAA/IHW

Coma diameter (arc mins)

30'

Principal tails: length

180'

(~90' wide at f. limit)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details.

Extraordinary view, of stubby, v. broad tail, much fainter than the coma! Tail sharper on S than on N edge. Note incr. coma diam. Still moving against Milky Way background, unfortunately! Photos obtained 8/12/50 (1950)

Approximate position and equinox:

R.A.

h

m Decl.

Date & decimal (UT)

1986 April 9.185d

Location

Mt. Teide Caldera rim, 6km past Vilaflor at 16,000 feet, Tenerife, Spain

Instrument type

Aperture (cm)

Focal ratio

Magnification

10x50 Binoculars

& naked eye

Degree of condensation

6

Position angle ($^{\circ}$) $\approx 150^{\circ}$ ("2pm", naked eye)*Nuclear magnitude $\sim 4^m$.

[PTO]

Comet p/Halley
 Observer R. J. McKim
 Sky conditions, moonlight etc., See p. III.
 V.C. No moon. Superbly transparent.
 Total magnitude of comet (m_1) n/e
 Method used n/e
 Comparison stars magnitudes n/e
 Source of comparison star mags. n/e
 Coma diameter (arc mins) 22' (x65)
 Principal tails: length n/e

Date & decimal (UT) 1986 April 9.185d
 Location Mr. Teide Caldera rim, 6 km
past Vilajoy at 16,000 feet,
Tenerife, Spain
 Instrument type } 21.6cm f/7.6
 Aperture (cm) } newtonian reflector
 Focal ratio } x65/130/232
 Magnification }
 Degree of condensation 6
 Position angle ($^{\circ}$) See sketch. (37)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Coma narrows & brighter p. nucleus — not a jet as such I thought. Nucleus seems less sharp than on 6th, similar to 7th. Est. nucleus ~ 4" diameter. At x130/232 a faint spine is seen in the tail.
 Approximate position and equinox: R.A. h m Decl. ° (1950)

[PTO]

Comet

P/Kalley

Date & decimal (UT) 1986 April 10.156 d

Observer

R. J. McKim

Location Mt. Teide Caldera rim, 7 km
past Naylor at 18,000 feet,

Sky conditions, moonlight etc.,

V.G. No moon. Superbly transparent.

Total magnitude of comet (m_1)See III.

Instrument type

Newtonian reflector

Method used

w/e
w/e

Aperture (cm)

21.6 cm

Comparison stars magnitudes

w/e

Focal ratio

7.6

Magnification

x65/130/232

Source of comparison star mags.

w/e

Coma diameter (arc mins)

27' (x65)

Degree of condensation

4

Principal tails: length

w/e

Position angle ($^\circ$)

w/e

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details.

Small sharp nucleus ~ 2" dia.? Tail well seen x65.
Diffuse triangular region in sunward direction. Strongly curv. 2 jets at 9 & 12 o'clock to the sunward
direction - cd. not quite held steadily. No more detail seen with Wr15 filter. Best view at x130.

Approximate position and equinox:

R.A.

h

M Decl.

(1950)

[PTO]

Comet

P/ Halley

Date & decimal (UT) 1986 April 10.156d

Observer

R. J. McKim

Location mt. Teide Caldera rim, 7 km
past Vilaflor at 18,000 feet,
Tenerife, Spain

Sky conditions, moonlight etc.,

V.G. No moon. Superbly transparent

Total magnitude of comet $(m_1) \epsilon \text{ Lupi} (i) V(i) \alpha \text{ Lupi}$

Instrument type

Method used in-arc

 $= 3.3 m$

Aperture (cm)

Comparison stars magnitudes

 $E = 3.4 m \quad \alpha = 3.2 m$

Focal ratio

Magnification

} 10x50 binoculars
& naked eye

Source of comparison star mags. IHW/BAA

Coma diameter (arc mins) 33'

Degree of condensation 6Principal tails: length { 150' gas
120' dustPosition angle ($^{\circ}$) See sketch! (Gas $\sim 120^{\circ}$
Dust $\sim 150^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Extraordinary broad fan tail - also gas tail seen
repeatedly for 1st time - earlier it was coincident with a skywell sharper S edge of the general comet tail.
Coma wider, tail(s) shorter. Yellowish; fan angle $\sim 90^{\circ}$; maybe 2° or more broad at limit!
Photo's taken 50mm SLR c. (1950)

Approximate position and equinox: R.A. h m Decl.

Experimented with Hinkley W15 (yellow) & W44A (blue) filters on binoc. eyepieces - one for each
eye - giving some support to the idea that the gas tail was bluish (sharper with 44A, n. seen 15)
and the dust tail yellowish (better in W15 and INT than in W44A).
However, a threshold on ϵ , probably, based on idea by Capen in J.A.L.P.O. [PTO]

Comet

P/Halley

Observer

R. J. McKim

Sky conditions, moonlight etc.,

Slight haze but very clear moments.

Total magnitude of comet (m₁) n/e

Method used n/e

Comparison stars magnitudes n/e

Source of comparison star mags. n/e

Coma diameter (arc mins) 38'

Principal tails: length ~120' (overall)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. V. sim. to view of yesterday, 10.156d, form (39), but not quite so good. Nucleus less sharp - I think this is a real effect, & perhaps part of a grain. Photos taken 50 mm Sere.

Approximate position and equinox:

R.A.

h

m Decl.

°

(1950)

Date & decimal (UT)

1986 April 11.146d

? Location Mt. Teide Caldera rim, at 21,000 feet, Tenerife, Spain

Instrument type

Aperture (cm)

Focal ratio

Magnification

} 10x50 binoculars & naked eye.

Degree of condensation

4-5

Position angle (°)

As 10.156d, see dr (39).

Comet P/Halley
Observer R. J. McKim
Sky conditions, moonlight etc., Good for UK.

Date & decimal (UT) 1986 May 1.880 d
Location Oundle, Peterborough, UK.

Total magnitude of comet (m_1) $V = \alpha C_{ra}$
Method used *in-cur* $= 4.1 m$
Comparison stars magnitudes $\alpha C_{ra} = 4.1 m$

Instrument type }
Aperture (cm) } 10x50 binoculars
Focal ratio }
Magnification }

Source of comparison star mags. *IHW/BAA*

Coma diameter (arc mins) *30'*

Degree of condensation *3-4*

Principal tails: length *n.v.*

Position angle ($^\circ$) *n/e*

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *No real nucleus, no tail; Circular coma with only a diffused, irregular centre.*

Approximate position and equinox: R.A. *h* m Decl. $^\circ$ (*1950*)

Comet

P/valley

Date & decimal (UT)

1986 May 3.190d

Observer

R.-J. McKim

Location

Aunde, Peterborough, UK.

Sky conditions, moonlight etc., fairly good.

Total magnitude of comet (m_1) α Cra(1)V(2) β HydraMethod used In-air = 4.7^m

Instrument type

Aperture (cm)

Focal ratio

Magnification

10 x 50 binoculars

Comparison stars magnitudes

 α Cra = 4.1^m, β Hydra = 5.4^m,

Source of comparison star mags. IHW/BAA

Coma diameter (arc mins)

20'

Degree of condensation

4

Principal tails: length

n/v

Position angle ($^{\circ}$)

n/v

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details.

Definitely less bright than α Cra tonight - cd. not
 see a tail - poss. affected by v. close proximity to
 the 3rd mag. star β Hydra

Approximate position and equinox:

R.A.

h

m Decl.

(1958)

[PTO]

Comet P/halley

Date & decimal (UT) 1986 May 5.190d

Observer R.J. McKim

Location Aundle, Peterborough, UK.

Sky conditions, moonlight etc., Good.

$m_2 \sim 5$ nr. comet, ~ 6 zenith.

Total magnitude of comet (m_1) ϕ Hyd (1) V(4) \sim Hyd = 4.5m

Instrument type

Method used In-arc

Aperture (cm)

} 10x50 binoculars

Comparison stars magnitudes

Focal ratio

ϕ Hyd = 4.9m \sim Hyd = 3.1m

Magnification

Source of comparison star mags.

Coma diameter (arc mins) 18'

Degree of condensation 4

Principal tails: length n/a

Position angle ($^\circ$) $\sim 200^\circ$ as seen in Jov

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. ~~Maybe~~ visible to n. eye by averted vision! Check the stars of the tail seen - rest must be too faint! A slightly cond'd comet, with PA $\sim 200^\circ$ fan-like elongation.

Approximate position and equinox: R.A. h m Decl. (1950)

[PTO]

Comet P/ Halley

Observer R. J. McIlrim

Sky conditions, moonlight etc., Good.
 $m_2 \sim 5$ nr. comet, ~ 6 at zenith

Total magnitude of comet (m_1) n/a

Method used n/a

Comparison stars magnitudes n/a

Source of comparison star mags. n/a

Coma diameter (arc mins) 10'

Principal tails: length n/a

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *More condensed than with 10x50's. The coma is brighter on the sunward side. At x120, DC 6-7, perhaps! faint tail - or start of one, seen.*

Approximate position and equinox: R.A. h m Decl. ° (1950)

Date & decimal (UT) 1986 May 5.190 d

Location Oundle, Peterborough, UK.

Instrument type } 10 cm OG
 Aperture (cm) }
 Focal ratio } x40 (higher).
 Magnification }

Degree of condensation 5-6 (x40)

Position angle (°) $\sim 40^\circ$ as seen 
 in for \rightarrow

(PTO)

Comet

P/Halley

Observer

R. J. McKim

Sky conditions, moonlight etc.,

(n-eye) hr lim $\sim 4\frac{1}{2}$ (Crescent moon in sky)Total magnitude of comet (m_1) $V = 6' \text{ Hyd.} = 5.4^m$

Method used

h_u curComparison stars magnitudes $6' \text{ Hyd.} = 5.4^m$

Source of comparison star mags.

Iuu/BAA

Coma diameter (arc mins)

15'

Principal tails: length

n/a

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

My final view of this apparition of P/Halley. Coma has been getting smaller & smaller I think. A circular, slightly condensed, unimpressive A06!

Approximate position and equinox:

R.A.

h

m

Decl.

°

(1950)

)

Date & decimal (UT)

*

1986 May 13.9062

Location

Oundle, Peterborough, UK.

Instrument type

Aperture (cm)

Focal ratio

Magnification

} 10x50 Binoculars.

Degree of condensation

4

Position angle (°)

n/a

(*last observation of P/Halley!)

Comet HALLEY (1982i)

Date & decimal (UT) 1985 October 19.184
(i.e. 4h 24m. U.T.)

Observer DAVID R. KEEDY

Location South Shields 55°01'N. 1°25'W.

Sky conditions, moonlight etc., *Clear, no moonlight, stars seen down to 10th and occasionally 11th magnitude, fairly steady atmosphere much of the time.*Total magnitude of comet (m_1) 9m.5

Instrument type BINOCULARS

Method used *Only a rough estimate, no genuine method.*

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio —

The two unnamed stars inserted on the attached map were the comparison, but even their magnitudes were not known for sure.

Magnification 11

Source of comparison star mags.

Coma diameter (arc mins) ~~3.5~~ = 3 mins??

Degree of condensation —

Principal tails: length ~~2~~ —

Position angle (°) 9

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A.

Decl. (1950)

55h. 55m. 34

+20° 52' 36

PERIODIC
Comet HALLEY (1982 i)

Observer DAVID R. KEEDY

Sky conditions, moonlight etc., CLEAR SKY, STARS BRIGHT, NO MOON.

Total magnitude of comet (m_1) 8m.3 APPROX.

Method used NO PROPER METHOD. ONLY DIRECTLY
COMPARED MAG. WITH NEARBY APPROX.

Comparison star\$ magnitudes 8m. STAR, CO-ORDINATES
APPROX. 5h01m RA, +22°27' DEC.
(Comet was about similar brightness
to this star).

Source of comparison star mag\$. SAO

Coma diameter (arc mins) 10 MINUTES

Principal tails: length NONE OBSERVED

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. VIRTUALLY CIRCULAR COMA. EYES NOT FULLY
DARK ADJUSTED; ONLY BRIEF OBSERVATION, ∴
OBSERVATION OF LIMITED VALUE ONLY

Approximate position and equinox:

R.A.
5hrs.00m.5

Decl.
+22° 07' 5

(1950 epoch)

Date & decimal (UT) 1985 NOVEMBER 5.976
(ie. 23hrs.25mins UT)

Location SOUTH SHIELDS, TYNE + WEAR
(55°01'N, 1°25'W)

Instrument type } 11x80mm binoculars

Aperture 8 (cm)

Focal ratio —

Magnification 11

Degree of condensation —

Position angle (°) —

Comet HALLEY 1982 i

Date & decimal (UT) 1985 November 10.875

Observer DAVID R. KEEDY

Location SOUTH SHIELDS 55°01'N, 1°25'W

Sky conditions, moonlight etc. *Clear, good conditions. Moonlight did not interfere (27 days old)*Total magnitude of comet (m_1) *Approx. +7^m.5*

Instrument type BINOCULARS

Method used *B and S*

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio

Magnification 11x

Source of comparison star mags. *SAO*

Coma diameter (arc mins) 15

Degree of condensation

Principal tails: length —

Position angle (°)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Near circular coma, with slightly off-centre, star-like central condensation

Approximate position and equinox:

R.A. 4h 30m

Decl. +22°13'.5 (1950)

Comet HALLEY 1982 i

Date & decimal (UT) 1985 November 13.854

Observer DAVID R. KEEDY

Location SOUTH SHIELDS 55° 01' N, 1° 25' W

Sky conditions, moonlight etc., Fairly clear, some mist affecting ^{apparent} coma size. Moonlight did not interfere (1 day old)Total magnitude of comet (m_1) Approx. +7^m.5

Instrument type Binoculars

Method used

B + S

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio

Magnification 11x

Source of comparison star mags. SAO

Coma diameter (arc mins) 10 minutes

Degree of condensation

Principal tails: length

Position angle (°)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. 4h 07m.45 Decl. +22° 03'.7 (1950)

Comet HALLEY 1982 i

Date & decimal (UT) 1985 November 16.938

Observer DAVID R. KEEDY

Location SOUTH SHIELDS 55°01'N, 1°25'W

Sky conditions, moonlight etc., Clear, good ^{seeing} conditions. Moonlight did not interfere (4 days old)Total magnitude of comet (m_1) Approx +7m. \odot

Instrument type Binoculars

Method_s used B + S

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio

Magnification 11 X

Source of comparison star mags. SAO

Coma diameter (arc mins) ~~15 minutes~~ —

Degree of condensation

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Starlike central condensation, slightly off centre in the coma

Approximate position and equinox: R.A. 3h 40m

Decl. +21°35'.5 (1950)

Comet HALLEY 1982 i

Date & decimal (UT) 1985 December 8.729

Observer DAVID R. KEEDY

Location South Shields, Tyne & Wear $55^{\circ}01'N$
 $1^{\circ}25'W$ Sky conditions, moonlight etc., Clear, slightly misty, only brighter stars visible to unaided eye,
but quite steady conditions. Moon, nearly 26 days old, had not yet risen.Total magnitude of comet (m_1) $+5^m.6$

Instrument type BINOCULARS

Method used SIDGWICK (S)

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio —

82 Pegasi = $5^m.4$ 80 Pegasi = $5^m.79$

Magnification 11 times

Source of comparison star mags.

Sky Atlas 2000 (Turon) and Sky Catalogue (2000) (Eds. Hirschfeld + Sinnott)

Coma diameter (arc mins) About 10^mms

Degree of condensation Moderate central condensation

Principal tails: length —

Position angle ($^{\circ}$) —General description of coma shape, nucleus, jets, tails etc. Use reverse of form
for field sketch and other details.Approximate position and equinox: R.A.
23h 58m.2Decl.
 $+7^{\circ}48'$

(2000)

DR Keedy

Comet HALLEY 1982i

Date & decimal (UT) 1985 December 28.7435

Observer DAVID R. KEEDY

Location SOUTH SHIELDS

(55°01'N, 1°25'W)

Sky conditions, moonlight etc. CLEAR, 'MISTY/ICY',

STEADY ATMOSPHERE, MOON ABOUT 1½ DAYS AFTER FULL CAUSING SLIGHT SKY GLOW. FAINTEST STARS VISIBLE TO UNASSISTED EYE = +3^m.Total magnitude of comet (m₁) +5^m.0

Instrument type BINOCULARS

Method used SIDGWICK

Aperture (cm) 8 (11 times magnifying power)

Comparison stars magnitudes

Focal ratio —

TT Aqr. = +4^m.66

Magnification 11

32 Aqr. = +5^m.30

Source of comparison star mags. SAO catalogue

Coma diameter (arc mins) 4 to 5 arc mins.

Degree of condensation —

Principal tails: length 20 arc mins
(gas? tail, thin)

Position angle (°) NE (345°)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Roundish coma, with central condensation near "front" of coma, thin gas(?) tail.
↓
stellar-like

Approximate position and equinox: R.A.

Decl.

(1950)

22h 23m.3

-1°43'

(Bevan's Atlas

Eclipticalis)

Comet HALLEY 1982 i

Date & decimal (UT) 1985 December 29.7262

Observer DAVID R. KEEDY

Location SOUTH SHIELDS

Sky conditions, moonlight etc., *clear, very steady sky, (55° 01' N, 1° 25' W)*
frosty conditions, limiting naked eye stars to 4^m. Moon 2½ days after full moon did not affect observation.

Total magnitude of comet (m_1) +5^m.0

Instrument type BINOCULARS

Method used SIDGWICK

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio —

TT AQR = +4^m.66

Magnification 11 times

32 AQR = +5^m.3060 AQR = +5^m.89

Source of comparison star mags.

SAO catalogue

Coma diameter (arc mins)

Degree of condensation —

5 to 6 arc mins

Principal tails: length

Position angle (°) NE (45°)

Hint Gas tail, difficult to measure

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Hint of thin gas tail, roundish coma, central condensation not obvious.*

Approximate position and equinox: R.A. 22h 21m.1 Decl. -2° 02'.5 (1950)

(Bevan's Atlas
Eclipticalis)

DR Keedy

Comet HALLEY

Date & decimal (UT) 1986 January 10.71513
and Jan 10.7506

Observer DAVID R. KEEDY

Location SOUTH SHIELDS (53°N 01.5W)

Sky conditions, moonlight etc., *clear, no moonlight affecting observation, sky slightly blue in earlier obs.*Total magnitude of comet (m_1) 4^m.8

Instrument type 11x80mm Binoculars

Method used Sidgwick

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio —

~~SAO~~ 5^m.3 and 4^m.7

Magnification 11

Source of comparison star mags.

SAO

Coma diameter (arc mins) —

Degree of condensation —

Principal tails: length —

Position angle (°) —

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A.

Decl. ()

Only attempted mag. estimate, no other measurements.

Comet HPALLEY 1982 JDate & decimal (UT) 1986 January 19.750Observer DAVID R. KEEDYLocation SOUTH SHIELDS 55° 8' N
1° 25' WSky conditions, moonlight etc. clear, good seeing but bright sky lights
in vicinity of comet, Moon in southern quadrant, light loss due to comet's low elevation.Total magnitude of comet (m_1) 4^m.5Instrument type BinoocularsMethod used SidgwickAperture (cm) 3

Comparison stars magnitudes

Focal ratio —B Apr. 2^m.91 S Apr. 4^m.16Magnification 11o Apr. 4^m.69 π Apr. 4^m.66γ Apr. 3^m.84 η Apr. 4^m.02

Source of comparison star mags.

Sky Atlas 2000 (Cambridge)
Coma diameter (arc mins) —Degree of condensation —Principal tails: length —Position angle (°) 11 pm position compared
with horizon. $\frac{1}{2}$ casual estimate onlyGeneral description of coma shape, nucleus, jets, tails etc. Use reverse of form
for field sketch and other details.

Approximate position and equinox: R.A.

Decl. ()

Comet *HALLEY 1982* :Date & decimal (UT) *1986 January 24.750*Observer *DAVID R. KEEDY*Location $\left\{ \begin{array}{l} 55^{\circ} 01' N, 1^{\circ} 25' W \\ \text{SOUTH SHIELDS, Tyne + Wear} \end{array} \right.$ Sky conditions, moonlight etc., *Twilight, blue sky, clear, strong scintillation, moon near 'full'*Total magnitude of comet (m_1) *3^m.8*Instrument type *BINOCULARS*Method used *Sidgwick*Aperture (cm) *8*

Comparison stars magnitudes

Focal ratio *-**23 ♄ Aqr. (4^m.69) and β Aqr. (2^m.91)*Magnification *11 times*

Source of comparison star mags.

*Sky Catalogue 2000 Vol. 1.*Coma diameter (arc mins) *—*Degree of condensation *—*Principal tails: length *—*Position angle ($^{\circ}$) *—*General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *—*Approximate position and equinox: R.A. *—*Decl. *—* (*—*)

Comet HALLEY

Date & decimal (UT) 1986 APRIL 28.882

Observer DAVID R. KEEDY

Location SOUTH SHIELDS, TYNE & WEAR

Sky conditions, moonlight etc., CLEAR, TOWN LIGHTS AFFECTING VIEW
(55° 01' N, 1° 25' W)Total magnitude of comet (m_1) + 5^{m.0}

Instrument type BINOCULARS

Method used SIDGWICK

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio —

132 CRATERIS + 5^{m.09}

Magnification 11

5 27 CRATERIS + 4^{m.73}

Source of comparison star mags.

JHW: AAVSO CHART 13, BAA CHART 3B AND TIRION'S SKY ATLAS 2000 PLUS SKY CATALOGUE 2000

Coma diameter (arc mins)

Degree of condensation

Principal tails: length

Position angle (°)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox:

R.A. 1h 02m Decl. - 20° 12½' (2000)
ONLY VERY APPROX. POSTN.

D.R. Keedy

Comet HALLEY

Date & decimal (UT) 1986 APRIL 29.910

Observer DAVID R. KEEDY

Location SOUTH SHIELDS, TYNE & WEAR
(55°01'N, 1°25'W)

Sky conditions, moonlight etc., CLEAR, GOOD

Total magnitude of comet (m_1) +5^m.0

Instrument type BINOCULARS

Method used SIDGWICK

Aperture (cm) 8

Comparison stars magnitudes

Focal ratio —

α and 27 Crateris +5^m.09 and 4^m.73

Magnification 11

Source of comparison star mags.

PHW: AAVSO Chart 13, BAA Chart 3B and Tirion's Sky Atlas 2000 plus Sky Catalogue 2000

Coma diameter (arc mins) —

Degree of condensation

Principal tails: length —

Position angle (°) —

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox:

R.A. 10h 58m Decl. -19°20' (2000)

Very approx. posn!

DR Keedy

Comet HALLEY 1982 i

Observer DAVID R. KEEDY

Sky conditions, moonlight etc., CLEAR SKY, STEADY CONDITIONS, NEW MOON.

Total magnitude of comet (m_1) +7^m.5

Method used SIDGWICK

Comparison stars magnitudes

+7^m.3 only

Source of comparison star mags.

Coma diameter (arc mins)
*Turoni Sky Atlas + Catalogue 2000 + IHW CHART 112*Principal tails: length

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox:

R.A.

10h.39m.2

Decl.

-13° 15'

(2000 equinox)

Date & decimal (UT) 1986 MAY 8.90338

Location SOUTH SHIELDS 1°25'W.
55°01'N.

Instrument type BINOCULARS

Aperture (cm) 8

Focal ratio

Magnification 11 times

Degree of condensation Position angle (°)

Comet P/HALLEY 1982:

Date & decimal (UT) 1985 NOV. 12d. 906

Observer JONATHAN JONES

Location 308 WASKERLEY Rd. BARMSTON
WASHINGTON TYNE+WEAR NE38 8HA
NR. NEWCASTLE

Sky conditions, moonlight etc.,

STREETLIGHTS
Total magnitude of comet (m_1) Sm. 9 S.g

Instrument type B

Method used B

Aperture (cm) 3

Comparison stars magnitudes

Focal ratio

~~SKY CATALOGUE 2000.0~~

Magnification 8x30

TT Aeg 5.6 μ Cyg 6.1

Source of comparison star mags.

SKY CATALOGUE 2000.0

Coma diameter (arc mins)

Degree of condensation MOD. CONDENSED W

20.2

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox:

R.A. 3h 35m

Decl. 24 $^{\circ}$

(1950.0)

Comet P/HALLEY 1982i

Date & decimal (UT) 1985 NOV 14.901

Observer JONATHAN JONES

Location 308 WASKERLEY ROAD BARMSTON
WASHINGTON TYNE+WEAR NE38 8HA

Sky conditions, moonlight etc.,

STREETLIGHTS

Total magnitude of comet (m_1) 5m.6 5.6

Instrument type B

Method used B

Aperture (cm) 3

Comparison stars magnitudes

Focal ratio

 η psc 5.3 ψ DRR 5.7

Magnification

Source of comparison star mags.

8x30

Coma diameter (arc mins)

STAR CATALOGUE 2000.0

Degree of condensation MED. CONDENSED S.1

21.1

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. 3h 37m Decl. 24.6 $^{\circ}$ (1950.0)

Comet P/HALLEY 1982i

Observer JONATHAN JONES

Sky conditions, moonlight etc.,

STREETLIGHTS HAZE
Total magnitude of comet (m_1) 7.4

Method used B

Comparison stars magnitudes

38 Gem Omicron Cephei 7.3

Source of comparison star mags.

SKY CATALOGUE 2000.0
Coma diameter (arc mins) 19.3

Principal tails: length

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. $9^{\text{h}}56^{\text{m}}.24$ Decl. $-15^{\circ}15'.5^{\circ}$ (1950.0)

Date & decimal (UT) 1986 May 1.874

Location 305 WASKERLEY ROAD BARMINGTON
WASHINGTON TUNSWEAR NE38 8HA
NR. NEWCASTLE

Instrument type B

Aperture (cm) 3

Focal ratio

Magnification 8x30

Degree of condensation DIFFUSE 2

Position angle ($^{\circ}$)

Comet P/HALLEY 1982:

Date & decimal (UT) 1986 MAY 10.876

Observer JONATHAN JONES

Location 306 WASKELLEY ROAD BARMSTON
WASHINGTON TUNE + WEAR NESS 84A
NR. NEWCASTLE

Sky conditions, moonlight etc.,

STREET LIGHTS

Total magnitude of comet (m_1) 7.8

Instrument type B

Method used B

Aperture (cm) 3

Comparison stars magnitudes

Focal ratio

7 Cass, 8.0 38 Gem 7.6
39 Dra 7.7

Magnification 8x30

Source of comparison star mags.

STAR CATALOGUE 2000.0

Coma diameter (arc mins) 19.1

Degree of condensation DIFFUSE 0

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. $10^{\text{h}} 08^{\text{m}} .56$ Decl. $-16^{\circ} 26' .37$ (1950.0)

Comet **P/HALLEY 1982i** Date & decimal (UT) **1985 Nov 11, 0140T.**

Observer **RHONA FRASER** Location **Turnff, Aberdeenshire**

Observing conditions, moonlight etc.,

Clear - observation rushed because of approaching snow shower

Apparent magnitude of comet (m_1) **7.8** Instrument type

Method used **Bobrovnikoff (B).** Aperture (cm) **Binooculars**

Comparison stars magnitudes Focal ratio **50**

Chart **(7.4) in BD +22° 0743 TURNFF chart** Magnification **X12.**

Source of comparison star mags.

BAA Binoocular VSS chart

Coma diameter (arc mins) **8'** ~~10'~~ ~~12'~~ Degree of condensation

Principal tails: length **8'** ~~10'~~ ~~12'~~ Position angle (°) **4/10 (very rough)**

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details.

Approximate position and equinox: R.A. **4^h 36^m 25^s** Decl. **+22° 20'** (1950.)

Very

Not enough time for a drawing

Comet P / Halley 1982t
 Observer R. Froese
 Sky conditions, moonlight etc.,
 Excellent
 Total magnitude of comet (m_1) 7.6
 Method used SIDGWICK.
 Comparison stars magnitudes
 1" = 7.4 7-2

Source of comparison star mags.

D + 22° 0743 TAURI BAA Binocular VSS Chart.

Coma diameter (arc mins)

8'

Principal tails: length

Date & decimal (UT) 1985 Nov. 13.896T

Location Delgaty Wood, Tunff

Instrument type Binoculars

Aperture (cm)

50

Focal ratio

Magnification

x 12.

Degree of condensation

6-7

Position angle (°)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

or field sketch and other details.

than on Nov 11.014 ← nucleus more dense BUT observation more relaxed & less rashed

Approximate position and equinox:

R.A. 4^h 07^m 40" Decl. +32° 03' (1950)

37/39 Tau

Coma a little more than 2/3 dia of distance between 37/39 Taur

Comet **P/HALLEY 1982i** Date & decimal (UT) **1985 Nov 16.96 UT**

Observer **R. FRASER** Location **TURRIFF**

Observing conditions, moonlight etc.,

CLEAR

Apparent magnitude of comet (m_1) **7.5**

Method used **SIDGWICK**

Comparison stars magnitudes

= 7.4

Source of comparison star mags.

3D +22° 0743 TRU

Coma diameter (arc mins)

9' ~~55"~~

Principal tails: length

NONE

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details.

A uniform coma + nucleus

Approximate position and equinox: R.A. **3^h 39^m 20^s** Decl. **+21° 36'** (1950)

com viewed in 150cm spec at 1.30am 17/11/85 - still uniform shape at higher magnifications

Instrument type **Binoculars**
 Aperture (cm) **50**
 Focal ratio
 Magnification **x12.**

Binocular VSS chart
 Degree of condensation **7/8/10**
 Position angle (°)

Comet P / HALLEY 1982 Date & decimal (UT) 1985 Dec 4.90UT
 Observer RHONA FRASER Location

Sky conditions, moonlight etc.,

TURRIF

SLIGHT HAZE
 Total magnitude of comet (m_1) 6.1

Instrument type Binoculars

Method used SIDGWICK

Aperture (cm)

Comparison stars magnitudes

Focal ratio 50

Comet = F(3) v(2)g

Magnification X12

Source of comparison star mags.

BAA VSS Binocular chart TX Psc

Coma diameter (arc mins)

Degree of condensation 7-8

Principal tails: length

Position angle ($^{\circ}$)

11'
 suspected some "form" to nucleus but difficult to resolve in binoculars

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox:

R.A. $0^h 26.7^m$ Decl. $+10^{\circ} 55'$ (1950)

BRITISH ASTRONOMICAL ASSOCIATION (COMET SECTION) VISUAL OBSERVATION REPORT

Comet P/HALLEY.

Date & decimal (UT) 1985 Dec 7.8567

Observer R. FRASER

Location BLACKFOLD, INDERNESS

Sky conditions, moonlight etc.,

HIGH LEVEL CLOUD - STAR IMAGES RATHER HAZY.

Total magnitude of comet (m_1) 6.0

Instrument type

Method used SIDGWICK

Aperture (cm) BINOCULARS.

Comparison stars magnitudes

Focal ratio 50

32 Psc (4) v (1) 36 Psc.

Magnification X12.

Source of comparison star mags. ^{5.7} ^{6.1}

SKY + TELESCOPE

DEC 1985 pg 551 ? 1HW

Coma diameter (arc mins)

Degree of condensation 7-8

20'

Principal tails: length

Position angle (°)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

part of nucleus

? slight brightening at leading west

Approximate position and equinox: R.A. 0^h 1.6^m Decl. +8° 11' (1950)

Comet P/HALLEY.
 Observer R. FRASER
 Sky conditions, moonlight etc.,
 Total magnitude of comet (m_1) 6.0
 Method used SIDGWICK.
 Comparison stars magnitudes
 32 PSC (4) v (1) 36 PSC
 S. 7 6.1
 Source of comparison star mags.
 Sky + Telescope Dec 1985 pg SSI ? 1 HW
 Coma diameter (arc mins) 17'
 Principal tails: length
 Date & decimal (UT) 1985 Dec 10.0007
 Location TURRIFF,
 ABERDEENSHIRE
 Instrument type BINOCULARS
 Aperture (cm) 50
 Focal ratio
 Magnification X12.
 Degree of condensation 7-8.
 Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. 23^h 46.3^m Decl. +6° 38' (1950)

Comet P/HALLEY 1982i Date & decimal (UT) 1985 Dec 12.96 UT.

Observer RHONA FRASER Location TURRIFF

Sky conditions, moonlight etc. excellent, but very windy making any fine detail impossible to see. also to make mag. estimation difficult due to near

Total magnitude of comet (m_1) 6.4. Instrument type Direct light.

Method used SIDGWICK Aperture (cm) BINOCULARS

Comparison stars magnitudes 31 Psc -1 Focal ratio 50 X 12.

(6.3) Source of comparison star mags. From Sky + Telescope, Dec 1985 pg 551 ± 1HW.

Coma diameter (arc mins) 18' Degree of condensation 8

Principal tails: length ? Position angle ($^\circ$) ?

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Nucleus seemed slightly asymmetric but attraction confused by close proximity of star

Approximate position and equinox: R.A. 23^h 27.3^m Decl. +4^o 45' (1950) \rightarrow

Comet *P/Halley 1982i* Date & decimal (UT) *1985 Dec 13.750T*

Observer *R. FRASER* Location *TURRIFF*

Sky conditions, moonlight etc., *Excellent to start but very rapidly cloud approached from the west. I therefore had to rush mag. estimation.*

Total magnitude of comet (m_1) *6.0* Instrument type *BINOCULARS*

Method used *SIDG WICK.* Aperture (cm) *50*

Comparison stars magnitudes Focal ratio *12.*

32 PSC (4) V (1) 36 PSC Magnification *x12.*

Source of comparison star mags. *5.7 6.1*

Sky 9 Telescope Dec 1985 pg 551 ? 1HW. Degree of condensation *8*

Coma diameter (arc mins) *18'* Position angle ($^{\circ}$) *8*

Principal tails: length

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. *Symmetrical nucleus & coma but observer rushed because of approaching cloud*

Approximate position and equinox: R.A. *23^h 22.7^m* Decl. *+4^o 20' (1950.)*

Comet

P/HALLEY 1982u

Date & decimal (UT) 1985 Dec 18.81 UT

Observer

R. FRASER

Location

TURKIFF

Sky conditions, moonlight etc.

cloud (eventually clouded over) 1st quarter moon

Nearby + occ: high level

Total magnitude of comet (m_1)

S.9

Instrument type

Binoculars

Method used

SIDGWICK

Aperture (cm)

50

Comparison stars magnitudes

58(1) V(4) 63

Focal ratio

Magnification

X12

Source of comparison star mags.

Sky & Telescope Dec 1985 pg 551 ? 14W.

Coma diameter (arc mins)

? act. coma obscured by moonlight 14'

Degree of condensation

8

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Nucleus

appeared uniform & ? brightening
(due to ↑ contrast to due to dimming of coma due to presence of moon)
act. coma less distinct because of moon

Approximate position and equinox:

R.A.

22^h

57.4

Decl.

+1 $^{\circ}$

47'

(1950)

BRITISH ASTRONOMICAL SOCIATION (COMET SECTION) VISUAL OBSERVATION REPORT

Comet P / HALLEY

Date & decimal (UT) 1985 Dec 22.790T

Observer R. FRASER

Location TURRIFF

Sky conditions, moonlight etc.,
Quarto moon nearby - Overcast clear

Total magnitude of comet (m_T) 6.0

Instrument type Binoculars

Method used SIDGWICK

Aperture (cm) 50

Comparison stars magnitudes

Focal ratio

Magnification X12.

58 (2) v (3) 63

Source of comparison star mags.

sky & Telescope Dec 1985

pg 551 ? 1HW.

Coma diameter (arc mins)

Degree of condensation 7-8

10'

Principal tails: length

Position angle (°)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

of the coma - comet at "Limit Id. Aeon" because of light
No nuclear detail visible.
 Approximate position and equinox: R.A. 22^h 41.9 Decl. +0° 13' (1980.)

moon nearby interfered with the visibility

RHONA FRASER,

BRITISH ASTRONOMICAL ASSOCIATION (COMET SECTION)

VISUAL OBSERVATION REPORT
22 BELGATY TERR.,

TURRIFF AB5 7GA

Comet P/HALLEY 1982i

Date & decimal (UT) 1986 Jan 3.85

Observer R. FRASER

Location CRANHARICH, CENTRAL

Sky conditions, moonlight etc.

SCOTLAND

GOOD DARK SITE
Total magnitude of comet (m_1) 5.2 (?)

Instrument type BINOCULARS

Method used SIDGWICK

Aperture (cm) 50

Comparison stars magnitudes

Focal ratio

32 Aq (2) comet (3) X (see over)

Magnification x12

Source of comparison star mags.

see over

Coma diameter (arc mins)

Degree of condensation 6-7

Principal tails: length

8'
10'

Position angle ($^{\circ}$) 280 $^{\circ}$

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

definite elliptical shape → see over

Approximate position and equinox: R.A. 22^h 08^m Decl. -3 $^{\circ}$ 11' (1950)

Comet P/HALLEY 1982I

Date & decimal (UT) 1986 Jan 22.75 UT.

Observer R. FRASER

Location TURRIFF

Sky conditions, moonlight etc., *light sky conditions*
low level cloud patches occ. during lower sky $\frac{3}{4}$ Moon.

Total magnitude of comet (m_1)

Instrument type

Method used SIDGWICK

Aperture (cm)

Comparison stars magnitudes

Focal ratio

 \Rightarrow β Aquaria

Magnification

Source of comparison star mags.

Coma diameter (arc mins)

10' approx.

Degree of condensation 8

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

slight elliptical shape.

Approximate position and equinox:

R.A. $21^h 33.8^m$ Decl. $-6^{\circ} 40'$ (1950.)

RHONA FRASER,

22 DELGATY TERR.,

TURRIFF AB5 7GA

Comet P/HALLEY
 Observer RHONA FRASER

Sky conditions, moonlight etc.,
 (LM=6.0) ~~GOOD~~ good

Total magnitude of comet (m_1) 3.6

Method used Naked eye

Comparison stars magnitudes

v Cent (2) v (3) 39

Source of comparison star mags.

Coma diameter (arc mins) 1 HW ch 3A 20'

Principal tails: length (a) 53'
 (b) 53'

Date & decimal (UT) 1986 Apr 11.60UT

Location COOPER POND, SOUTH AUSTRALIA

Instrument type Binoculars

Aperture (cm) 50

Focal ratio

Magnification x 16.

Degree of condensation 2

Position angle ($^{\circ}$) (a) 350 $^{\circ}$
 (b) 320 $^{\circ}$

PA wrong by 180

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

difficult because of diffuseness & close proximity to a dupl. Tail increasing magnitude estimate

Approximate position and equinox: R.A. 14^h 42.5^m Decl. -46 $^{\circ}$ 55' (2000.) →

16X50B not good binoculars so some tail detail may have been missed

Comet **P/HALLEY** Date & decimal (UT) **1986 Apr 12.72**
 Observer **R. FRASER** Location **KULGERA, NORTHERN
 Territory, AUSTRALIA**
 Sky conditions, moonlight etc., **QUEBLANT.**
No lights for hundreds of km (km=6.2)
 Total magnitude of comet (m_1) **3.7** Instrument type **Binculars**
 Method used **Naked eye @ binoculars** Aperture (cm) **40**
 Comparison stars magnitudes **2 Cent (3) & (2) 39** Focal ratio
 Magnification **x 12**

Source of comparison star mags.

Coma diameter (arc mins) **14 wch 3A.**

Principal tails: length

① Tail **350° PA 2 1/2°**
 ② Tail **290° 20°**

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. **14^h 14^m** Decl. **-43° 50' (2000.)**

Accurate observation Tail ① more pronounced than →
 tail ②

Degree of condensation **8**

Position angle (°)

PA wrong by 180°

Comet

P/HALLEY

Date & decimal (UT)

1986 Apr 13.62 UT

Observer

R. FRASER

Location

AYRES ROCK, NORTHERN
TERRITORY, AUSTRALIA

Sky conditions, moonlight etc.

A few lights in the south west (Lm = 6.0) ^{GOOD}Total magnitude of comet (m_1)

3.3

Instrument type

Binoculars
HO

Method used

Naked eye

Aperture (cm)

Focal ratio

Magnification

x 12

Comparison stars magnitudes

K Cen (4) v (1) v Cen

Source of comparison star mags.

HMW ch 5B

Coma diameter (arc mins)

Degree of condensation

7/10

Principal tails: length

① 1 1/2° ② 1 1/2°

Position angle (°)

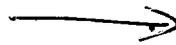
① 320° ② 300°

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox:

R.A. 13^h 53^m Decl. -44° 40' (2000)

Reasonably accurate observation



Comet **P/141115**Observer **R. REASER**Sky conditions, moonlight etc., (LM = S.S.)
Poor conditions - rished because of windTotal magnitude of comet (m_1) **2.5**Method used **3.5**Comparison stars **Naked eye**
magnitude **3.9****v Cen (1) v (4) 39**

Source of comparison star mags.

Coma diameter (arc mins) **14W ch3A**

Principal tails: length

① Tail **310° 1 1/2°**② Tail **310° 1 1/2°**

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. **13^h 31^m** Decl. **-43° 10'** (2000.)

Because of lack of obvious bright nearby stars & rishing because of poor weather this is not a particularly accurate observation / positioning. **Very large stellar nucleus, tail less obvious (due to poor observation)**

Date & decimal (UT) **1986 Apr 14.64UT**Location **AYRES ROCK, NORTHERN TERRITORY, AUSTRALIA**Instrument type **Binoculars**Aperture (cm) **50**

Focal ratio

Magnification **X16**Degree of condensation **8-9/10**

Position angle (°)

PA wrong by 180°

Comet **P/HALLEY**

Observer **R. FRASER**

Sky conditions, moonlight etc. **head - a**
~~few street lights~~ (LM=6)

Total magnitude of comet (m_1) **3.2**

Method used **Naked eye.**

Comparison stars magnitudes
α Cen (5) γ (2) γ Cen

Source of comparison star mags.
14W ch 3A

Coma diameter (arc mins)

Principal tails: length
① **2°** **40'**
② **2°**

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.
Jet(?) at PA 295°, length approx 15'

Approximate position and equinox: **R.A. 12^h 48^m Decl. 39° 50' (2000.)**

Date & decimal (UT) **1986 Apr 16.59**

Location **TENNANT CREEK, NORTHERN TERRITORY, AUSTRALIA**

Instrument type

Aperture (cm) **Binoculars**

Focal ratio **40**

Magnification **X10**

Degree of condensation **7**

Position angle (°) **① 325°**
② 280°

PA wrong by 180°

Comet

P/HALEY

Observer

R. FRASER

Sky conditions, moonlight etc. (hm=6.5)
 Very clear skies.

Total magnitude of comet (m_1) 3.5

Method used ~~is~~ Naked eye.

Comparison stars magnitudes

ν Cen (1) ν (4) 39

Source of comparison star mags.

IHW ch 3 A.

Coma diameter (arc mins)

17'

Principal tails: length

① 20 SS'
 ② 10 LS'

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox:

R.A. $12^h 37^m$ Decl. $-37^\circ 40'$ (2000.)

Good observation but due to few bright stars near the comet, the position is not very precise.

Date & decimal (UT) 1986 Apr 17.60UT

Location KATHERINE SARGE,
 NORTHERN TERRITORY,

Instrument type AUSTRALIA

Aperture (cm) Binoculars

Focal ratio 40

Magnification X12.

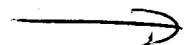
Degree of condensation

7/10

Position angle ($^\circ$)

① 315°
 ② 280°

PA wrong by 180°



Comet HALLEY 1982 i

Date & decimal (UT) 1985 Oct 08.111 To
08.125

Observer M. J. GAINSFORD

Location BURBAGE, LEICS.

Sky conditions, moonlight etc.,
MOONLIT BUT CLEARTotal magnitude of comet (m_1) < 9

Instrument type NEWTONIAN

Method used

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f6

Magnification X 40 X 120

Source of comparison star mags.

Coma diameter (arc mins)

Degree of condensation NOT SEEN

Principal tails: length

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form
for field sketch and other details.

COMET NOT FOUND. MESSIER 1 VERY EASY.

Approximate position and equinox: R.A. _____ Decl. _____ ()

Comet 1982 I HALLEY

Date & decimal (UT) 1985 Oct 09.992

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Clear, no moon. Low.

Total magnitude of comet (m_1) < 11.0

Instrument type Newtonian

Method used I-O

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f6

S (2) & (1) T S = 10.56

T = 11.16

Magnification x40

x120

Source of comparison star mags.

VSS 059.01 For U Ori.

Coma diameter (arc mins)

Degree of condensation 0

Not measured

Principal tails: length

Position angle ($^{\circ}$) --

Not seen

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

Vague blob. Very difficult. Possible oval shape?

for field sketch and other details.

No nucleus

No condensation

Approximate position and equinox: R.A. 6h 6m.36 Decl. +20° 22'.15 (1950.0)

Comet 1982 i HALLEY

Date & decimal (UT) 1985 Oct 12.191

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Clear. Crescent moon rising. N/E 4.9 at least

Total magnitude of comet (m_1) 11.9

Instrument type Newtonian

Method used I-O

Aperture (cm) 25

Comparison stars magnitudes

(a) T-2	T = 11.16	} Weighted mean 11.9
(b) E(3) & (1) F	A 11.4	
D(3) & (1) F	M 11.5	
	S 12.5	

Source of comparison star mags.

Focal ratio f 6

(a) VSS U Ori (b) AAVSO SU Tau

Magnification x 40
x 200

Coma diameter (arc mins)

Degree of condensation 2

0.15 x 8' \pm 1'.2 (from Atlas Ecl)

Principal tails: length

Position angle ($^{\circ}$) —

General description of coma shape, nucleus, jets, tails etc. Use reverse of form
Seems more condensed. Now nucleus or tail. Star near.

for field sketch and other details. Mag drop not real. Due to change of
Comparisons or better seeing.

Approximate position and equinox: R.A. 6h 4m.356 Decl. +20° 28'.56 (1950.0)

Comet HALLEY 1982 I

Date & decimal (UT) 1985 Oct 13.115

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Clear, v. slt haze lt n/e mag < 5.0

Total magnitude of comet (m_1) 11.9

Instrument type Newtonian

Method used I-O

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f6

D (2) & (1) F = 12.0 D 11.4

Magnification X 40

E (1) & (1) F = 11.9 E 11.5

X 170 (for estimates)

Source of comparison star mags.

AAVSO SU Tau

Coma diameter (arc mins)

Degree of condensation 3

1'.3

(avg 5 1/2 sec drift)

Principal tails: length

Position angle ($^{\circ}$)

No tail, but suspected elongation PA approx 30°/210°

But see below.

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

Coma possibly oval, but this could be due to stars in v. rich field.
for field sketch and other details.Approximate position and equinox: R.A. 6h 3^m.41 Decl. +20° 31'.40 (1950.e)

Comet HALLEY 1982 i

Date & decimal (UT) 1985 Oct 13.972

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.

*Fair but mist & fog developing**Limiting n/e about 4 1/2 mg. Comet rather low*Total magnitude of comet (m_1) \pm 12Instrument type *Newtonian*

Method used I - O

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f6

E (2) & (1) F

E = 11.5

F = 12.3

Magnification x 40

Source of comparison star mags.

x 60 (dia est)

AAVSO SUTau

x 120 (mag est)

Coma diameter (arc mins) 1.2

x 240

(5 sec drift in x 60)

Degree of condensation 1

Principal tails: length

Position angle ($^{\circ}$)

None seen

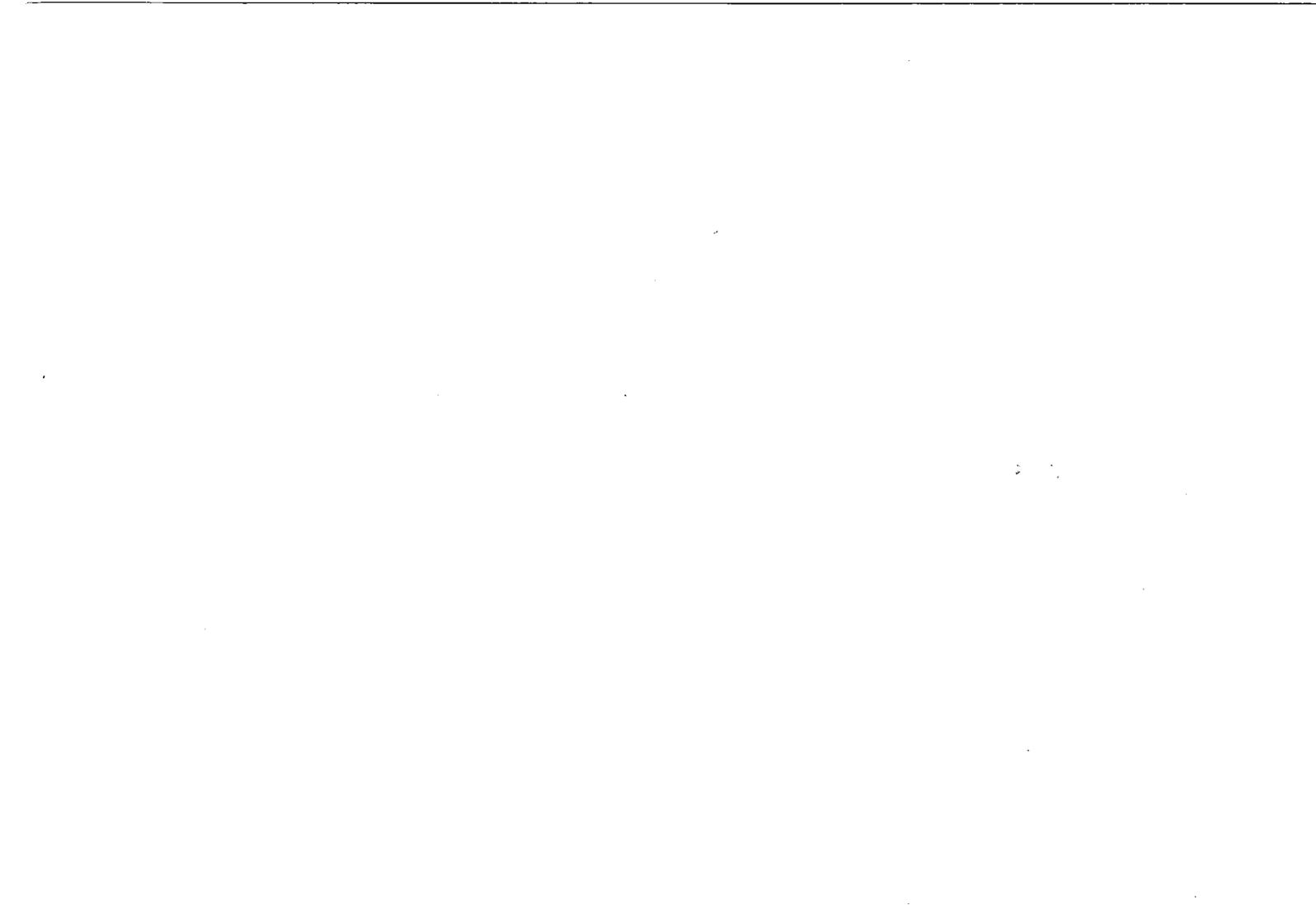
N/A

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

Vague blob. Not easy because of conditions.

for field sketch and other details.

Approximate position and equinox: R.A. 6h 2m.47 Decl. + 20° 34.12 (1950.0)



Comet HALLEY 1982 i

Date & decimal (UT) 1985 Nov 05.917

Observer M. J. Gainsford

Location Burbage, Leics.

Sky conditions, moonlight etc.,

Clear between clouds. Windy. N/E at 4.9. Clouds interrupting obs.

Total magnitude of comet (m_1) 8.2

Instrument type Newtonian

Method used I - 0

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f6

79 & 89. 79(1) & (2) 89

Magnification x60 (dia & mag)

x200 (nucleus)

Source of comparison star mags.

V Tau AAVSO chart

Coma diameter (arc mins)

Degree of condensation 6

Drift 13 sec (avg of 3) > 3'

Principal tails: length

Position angle (°) —

Suspected but not definite

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

large & well condensed. Considerable increase in brightness & for field sketch and other details. Condensation Since Oct 23 d.

Approximate position and equinox: R.A. 5h 00^m.3 Decl. +22° 7'.3 (1950.00)

Comet HALLEY 1982 i

Date & decimal (UT) 1985 Nov 07.014

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

*Windy & cloudy, but very clear between clouds. Lt N/E mg. > 5.0*Total magnitude of comet (m_1)

Instrument type Newtonian

Method used

*Clouds
interfered
with
estimates*

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f6

Source of comparison star mags.)

Magnification x 60 (dia)

x 200 (nucleus etc)

Coma diameter (arc mins) *Not very accurate*

Degree of condensation 6

Drift 10 sec (avg of 3) . 2'.3 because of clouds

Principal tails: length

Position angle ($^{\circ}$) —

General description of coma shape, nucleus, jets, tails etc. Use reverse of form
Round, well condensed. No nucleus seen. At least as bright as on Nov 05.
 for field sketch and other details. *Unfortunately clouds interrupted observations.*

Approximate position and equinox: R.A.

Decl.

()

Comet HALLEY 1982 i

Date & decimal (UT) 1985 Nov 09.000

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,
Cloud, wind. Some breaksTotal magnitude of comet (m_1) —

Instrument type Binos

Method used —

Aperture (cm) 80

Comparison stars magnitudes —

Focal ratio —

Magnification 11x80

Source of comparison star mags. —

Coma diameter (arc mins)
Approx $5' 5''$ Tau $\pm 8'$

Degree of condensation —

Principal tails: length

Position angle ($^\circ$) —

Not seen

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

Very easy. round.
for field sketch and other details.Approximate position and equinox: R.A. 04h 42.7 Decl. $22^\circ 13.8$ (1950.0)

Comet HALLEY 1982 i

Date & decimal (UT) 1985 Nov 09-018

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Wind & cloud but with clear breaks. Lt n/e mag. about 5.

Total magnitude of comet (m_1) 8.0

Instrument type Newtownian

Method used I - 0

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f6

7.5	75	(1)	8	(1)	85
8.5					

Magnification x 60 (dia & mag)
x 200 (nucleus)

Source of comparison star mags.

VY Tau Chart 58 of IHW

Coma diameter (arc mins)

Degree of condensation 6

12 sec drift (avg of 3) : 2'.8

Principal tails: length

Position angle ($^{\circ}$) —

Not seen

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

Easy, bright & well condensed. No tail, no nucleus seen.
for field sketch and other details.

Approximate position and equinox: R.A. 04h 42.6 Decl. 22° 13'.8 (1950.0)

Comet **HALLEY 1982₂** Date & decimal (UT) **1985 Nov 10.873**

Observer **M. J. Gainsford** Location **Burbage, Leics**

Sky conditions, moonlight etc.,
Short clear period between clouds. Lt n/e about 5 (rather low)

Total magnitude of comet (m_1) **7.6** Instrument type **Binos**

Method used **0-0 (B) (same field)** Aperture (cm) **80**

Comparison stars magnitudes Focal ratio **-**

7.5 - 1 Magnification **11 x 80**

Source of comparison star mags.
1HW Chart 58 (AAVSO VY Tau)

Coma diameter (arc mins) Degree of condensation **4**
> 5' 5" Tau. > 8'

Principal tails: length Position angle ($^{\circ}$) **-**

Tail suspected, but shown to be field stars in 25cm Sp.

General description of coma shape, nucleus, jets, tails etc. Use reverse of form
Large & round & moderately well condensed
 for field sketch and other details.

Approximate position and equinox: **R.A. 04h 30.24 Decl. + 22 $^{\circ}$ 13.6 (1950.0)**

Comet HALLEY 1982 i

Date & decimal (UT) 1985 Nov 10.885

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Short clear period between clouds.

Comet rather low. ht $\approx 75^\circ$.Total magnitude of comet (m_1) 7.75

Instrument type Newtonian

Method used I-O

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f6

7.5 (1) 8 (3) 8.5

Magnification x60 (dia & mag)
x200 (nucleus etc)

Source of comparison star mags.

1HW Chart 58 (AAVSO VY Tau)

Coma diameter (arc mins)

Degree of condensation 6

Drift 11 sec (avg of 3) ± 2.55

Principal tails: length

Position angle ($^\circ$) -

Not seen

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

Round. Definite intensity peak at centre. Outer edges of coma
for field sketch and other details. difficult to define. No tail. No nucleus.

Approximate position and equinox: R.A. 04h 30.16 Decl. +22° 13.6 (1950.0)

Comet HALLEY 1982i Date & decimal (UT) 1985 Nov 12.003

Observer M. J. Gainsford Location Burbage, Leics

Sky conditions, moonlight etc.,
 Very clear & frosty. No moon. $H \approx m_g$ 5.6

Total magnitude of comet (m_1) 7.8 Instrument type Newtonian

Method used I-O Aperture (cm) 25

Comparison stars magnitudes Focal ratio f6

75 (1) 8 (2) 85 Magnification $\times 60$ (diam, mag)
 $\times 120$ } (nucleus etc)
 $\times 200$ }

Source of comparison star mags.
 IHW Chart 58 (AAVSO VY Tau)

Coma diameter (arc mins) Degree of condensation 6

$\frac{1}{2}$ dist K-67 $\pm 3'5$. Drift 10sec (avg of 3) $\pm 2'3$. W. tail

Principal tails: length Mean $2'6$ Position angle ($^\circ$) —

None seen

General description of coma shape, nucleus, jets, tails etc. Use reverse of form
 Round & well condensed. No other detail, tail etc seen. V. near
 for field sketch and other details. bright star. See over

Approximate position and equinox: R.A. 4h 22.08 Decl. +22° 08.2 (1950.0)

Comet HALLEY 1982i

Date & decimal (UT) 1985 Nov 12d-946

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Clear & cold. No cloud. Slight mist but *lt n/e mag 5.6 or fainter*Total magnitude of comet (m_1) 7.75

Instrument type Newtonian

Method used I-0

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f6

75 (1) 8 (3) 85

Magnification X 60 (mag & dia)

Source of comparison star mags.

X 120 } rest
X 200 }

1HW Chart 58 (AAVSO VY Tau)

Coma diameter (arc mins)

Degree of condensation 7

Drift 10 sec (ave of 4) \pm 2'.3, (probably
not true
extent)

Principal tails: length

Position angle ($^\circ$) 60°?*Faint fan-shaped tail suspected. Length 10'?*

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

Very bright & strongly condensed, clear peak at centre but no nucleus.
for field sketch and other details.Approximate position and equinox: R.A. 04h 11^m.8 Decl. 22° 08'.4 (1950.0)

Comet HALLEY 1982i

Date & decimal (UT) 1985 Nov 12^d. 957

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Very clear. At n/e mag 5.6.

Total magnitude of comet (m_1) 6.8 (weighted mean)

Instrument type Binoculars

Method used I-O

Aperture (cm) 80 mm

Comparison stars magnitudes

Focal ratio -

75 + 5 = 7.0

Magnification 11 x 80

63 (1) / (2) 75 = 6.7

Source of comparison star mags.

IHW Chart 58

Coma diameter (arc mins)

Degree of condensation 4

K-67 Tau; θ_1, θ_2 Tau $\pm 7'$

Principal tails: length

Position angle ($^\circ$) -

Not seen

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

Bright & very easy. Also in 7x50 binos.
for field sketch and other details.Approximate position and equinox: R.A. 04h 14^m.7 Decl. +22° 8'.3 (1950.0)

Comet HALLEY 1982 i

Date & decimal (UT) 1985 Nov 13.913

Observer M. J. Gainsford

Location Burbage Leics

Sky conditions, moonlight etc.,

Clear in east but eventually clouded over. Lt r/e mag 5.6

Total magnitude of comet (m_1) 7.5

Instrument type Newtonian

Method used I-O

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f6

 ± 75

Magnification x60 (dia & mag)

Source of comparison star mags.

x120 } (nucleus etc)
x200 }

Chart 58 IHW

Coma diameter (arc mins)

Degree of condensation 6

Drift 12.6sec (avg of 5). dia ± 2.9

Principal tails: length

Position angle ($^\circ$) 60°

Suspected. Length not determined

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

Poss. elong. coma? Seems larger. Well condensed. No nucleus seen
for field sketch and other details.

Approximate position and equinox: RA. 04h 07m.0 Decl. + 22° 03'.5 (1950.0)

Comet HALLEY 1982 i

Observer M. J. Gainsford

Sky conditions, moonlight etc.,
Clear in E. Clouded from W.

Total magnitude of comet (m_1) 6.7

Method used I-O

Comparison stars magnitudes
63 (1) 8 (2) 75

Source of comparison star mags.
1 HW Chart 58

Coma diameter (arc mins)
1.2 $\theta^1 \theta^2$ Tau; 0.9 37/39 Tau \approx 8'.7

Principal tails: length
Not seen

General description of coma shape, nucleus, jets, tails etc. Use reverse of form
for field sketch and other details.

Approximate position and equinox: R.A. 04h 6m.9 Decl. +22° 3'.5 (1950.0)

Date & decimal (UT) 1985 Nov 13d.921

Location Burbage
Leics

ht n/e mag 5.6

Instrument type Binoculars

Aperture (cm) 80 mm

Focal ratio -

Magnification 11 x 80

Degree of condensation -

Position angle (°) -

Comet HALLEY 1982i

Date & decimal (UT) 1985 Nov 15^d. 798

Observer M. J. Gainsford

Location Burbage
Leics

Sky conditions, moonlight etc.,

Patchy cloud. Low. Not good. Lt n/e mag about 4

Total magnitude of comet (m_1) 6.8

Instrument type Binos

Method used I-O

Aperture (cm) 80 mm

Comparison stars magnitudes

Focal ratio -

62 (4) 64 (1) 69

Magnification 11 x 80

Source of comparison star mags.

IHW Chart 57 (BU Tau seq)

Coma diameter (arc mins)

Degree of condensation 3

Principal tails: length

Position angle ($^{\circ}$) -

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Round Blob. Hurried obs. between clouds.
Accuracy probably low

Approximate position and equinox: RA. 03h 50m.7 Decl. +21° 48' 6 (1950.0)

Comet HALLEY 1982_i

Date & decimal (UT) 1985 Nov 15d. 808

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Cloud with a few clear patches. Low. H_n/e mag 4. Not goodTotal magnitude of comet (m_1) —

Instrument type Newtonian

Method used —

Aperture (cm) 25

Comparison stars magnitudes —

Focal ratio f6

Magnification
x 120
x 250

Source of comparison star mags.

Coma diameter (arc mins)

Degree of condensation 7

Principal tails: length

Position angle (°)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Very condensed. Bright centre.
Clouds intervened

Approximate position and equinox: RA. 03h 50^m.5 Decl. 21° 48'.5 (1950.0)

Comet HALLEY 1982 i

Date & decimal (UT) 1985 Nov 18^d .008

Observer M. J. Gainsford

Location Burbage Leics

Sky conditions, moonlight etc., 20 sec break in almost complete cloud!

Total magnitude of comet (m_1) 'Bright'

Instrument type Binocs

Method used -

Aperture (cm) 80 mm

Comparison stars magnitudes -

Focal ratio -

Magnification 11x80

Source of comparison star mags. -

Coma diameter (arc mins) 'Large'

Degree of condensation 'Well condensed'

Principal tails: length None

Position angle ($^{\circ}$)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Approximate position and equinox: R.A. 3h 29m.5 Decl. +21° 20'.3 (1950.0)

Comet HALLEY 1982 i Date & decimal (UT) 1985 Nov 28.825

Observer M. J. Gainsford Location Burbage, Leics

Sky conditions, moonlight etc., Very clear, but near full moon. It / μ e mag 3.9

Total magnitude of comet (m_1) 6.0 Instrument type 11 x 80 Binos

Method used I - 0 Aperture (cm) 80 mm

Comparison stars magnitudes Focal ratio —

52(2) & (1) 63 Magnification 11

Source of comparison star mags.
IHW Chart 55

Coma diameter (arc mins) 5'.8 (inaccurate due to moon) Degree of condensation 4

Principal tails: length — Position angle ($^\circ$) —

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Little detail due to moon. Nevertheless easily found, also in 7x50 binos.

Approximate position and equinox: R.A. 1h 28.96 Decl. + 75° 24.2 (1950.0)

Comet **HALLEY 1982 i** Date & decimal (UT) **1985 Nov 28.832**

Observer **M. J. Gainsford** Location **Burbage, Leics**

Sky conditions, moonlight etc., **Very clear but brt moon. It n/e mag 3.9**

Total magnitude of comet (m_1) **6.0** Instrument type **Newtonian**

Method used **I-0** Aperture (cm) **25**

Comparison stars magnitudes Focal ratio **f6**

52(2) & (1) 63 Magnification **x60 (dia & mag)**
x200 (nucleus etc)

Source of comparison star mags. **IHW Chart 55**

Coma diameter (arc mins) Degree of condensation **6**
14.5sec drift. Dia \pm 3'.7 (Low accuracy)
due to Moon

Principal tails: length Position angle ($^{\circ}$) **—**

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. **Well condensed.**

Approximate position and equinox: R.A. **1h 28.9** Decl. **+15° 24.2** (1950.0)

Comet HALLEY 1982i

Date & decimal (UT) 1985 Dec 03.755

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Intermittent cloud. General thin cloud. At n/e mag 4^{1/2}Total magnitude of comet (m_1) 5.6

Instrument type Binos 11x80

Method used I-0

Aperture (cm) 80 mm

Comparison stars magnitudes

Focal ratio -

5.1 (3) ~~4~~ (1) 5.8

Magnification X 11

Source of comparison star mags.

IHW Chart 54

Coma diameter (arc mins)

Degree of condensation 5

13' (comparison with star separations)

Principal tails: length

Position angle ($^{\circ}$)

Not seen

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Round & very easy.

Approximate position and equinox: R.A. 00h 37m.5 Decl. +11 $^{\circ}$ 23' (1950.0)

Comet Halley 1982 i

Date & decimal (UT) 1985 Dec 03^d. 759

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

General thin cloud. Intermittent thicker cloud. At n/e mag 4¹/₂Total magnitude of comet (m_1) 5.8

Instrument type Newtonian

Method used I-O

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f/6

M = 58

Magnification x 60 mag etc

Source of comparison star mags.

x 200 nucleus

IHW Chart 54

Coma diameter (arc mins)

Degree of condensation 6

Avg 15.7 sec drift (3 timings) \approx 3'.8

Principal tails: length

Position angle ($^{\circ}$) about 90 $^{\circ}$

Vague fan shaped suspected

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Generally round & well-condensed. Faint tail suspected f (90 $^{\circ}$)Approximate position and equinox: R.A. 00h 37^m.6 Decl. +11 $^{\circ}$ 23' (1950.0)

Comet HALLEY 1982 i

Observer M. J. Gainsford

Sky conditions, moonlight etc.,
Clear, no moon et n/e about 5

Total magnitude of comet (m_1) 5.6

Method used 0-0

Comparison stars magnitudes
51 (1) 58 (4) 60

Source of comparison star mags.
IHW chart 54

Coma diameter (arc mins)
12'.8 (by comp. with field stars)

Principal tails: length
not seen

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Large round & well condensed.
May have been visible to n/e had there been no art. light.

Approximate position and equinox: R.A. 00h 18.32 Decl. +90 40'01 (1950.0)

Date & decimal (UT) 1985 Dec 05^d. 906

Location Burbage, Leics.

Instrument type Binos

Aperture (cm) 80 mm & 50 mm

Focal ratio - -

Magnification 11 & 7 (mag est)

Degree of condensation 5

Position angle ($^{\circ}$) -

Comet HALLEY 1982 I

Date & decimal (UT) 1985 Dec 05^d. 915

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

clear. At n/e mag about 5 in comet's direction

Total magnitude of comet (m_1) 5.7

Instrument type Newtonian

Method used I - O

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f6

55(1) 8 (2) 60

Magnification x 60 (mag, dia)

Source of comparison star mags.

1HW Chart 54

x 120

x 200 (nucleus)

Coma diameter (arc mins)

Degree of condensation 7

Drift 18.3sec (avg of 3) \pm 4'.5

Principal tails: length

Position angle ($^{\circ}$) 80° v. approx.Vague tail about 80° . More clearly seen at Dec 05.969

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. large & clear & well condensed. In x 200

possibly a nucleus, but more likely condensation. Tail likely.

Approximate position and equinox: R.A. 00h 18^m.3 Decl. +9 $^{\circ}$ 32'.3 (1950.0)

Comet HALLEY 1982:

Date & decimal (UT) 1985 Dec 13.747

Observer M. J. Gainsford

Location Burbage Leics

Sky conditions, moonlight etc., Break in heavy clouds. High clouds still.
Lt n/e mag only $4\frac{1}{2}$. Not goodTotal magnitude of comet (m_1) approx. 5.2

Instrument type Binoculars

Method used 0-0

Aperture (cm) 7x50 & 11x80

Comparison stars magnitudes

Focal ratio

50 (1) # (4) 59

Magnification

Source of comparison star mags.

1HW Chart 101

Coma diameter (arc mins) 13' approx.

Degree of condensation Well condensed.
5.

Principal tails: length Not seen

Position angle ($^{\circ}$) —General description of coma shape, nucleus, jets, tails etc. Use reverse of form
Large & round. Observation interrupted by cloud.
for field sketch and other details.Mag est. difficult as it is
impossible to rack out far enough.Approximate position and equinox: R.A. 23h 22.8 Decl. +4 $^{\circ}$ 19'.1 (1950.0)

Comet HALLEY 1982i

Date & decimal (UT) 1985 Dec 18.760

Observer M. J. Gainsford.

Location Burbage, Leics

Sky conditions, moonlight etc.,

Very clear but spoilt by moon 12° distant. It n/e mag about 4.8
 Total magnitude of comet (m_1) 5.2

Instrument type Binoculars

Method used I-0

Aperture (cm) 11 x 80

Comparison stars magnitudes

Focal ratio -

45 (3) 4 (1) 54

Magnification -

Source of comparison star mags.

IHW Chart 100

Coma diameter (arc mins)

Degree of condensation 5

11' (comp. with field stars)

Principal tails: length

Position angle ($^\circ$)

Not seen. Sky too bright

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Excellent night spoilt by moon. Otherwise
 it would have probably been n/e object.

Approximate position and equinox: R.A. 22h 57.^m75 Decl. + 1° 47'.2 (1950.0)

Comet HALLEY 1982_i

Date & decimal (UT) 1985 Dec 18.779

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Very clear but moon too close. Lt n/e mag \pm 4.8Total magnitude of comet (m_1) 5.1

Instrument type Newtonian

Method used I - 0

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f/6

45 (2) & (1) 54

Magnification x 60

Source of comparison star mags.

x 120

1 HW Chart 100

x 200

Coma diameter (arc mins)

Degree of condensation 6 (x 200)

Drift 15.75 sec (avg of 3) \approx 4' *

Principal tails: length

Position angle ($^\circ$) -Possible elongation $80^\circ/260^\circ$? but moon too bright

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details.

Seeing spoilt by moon. * Full extent of
Coma difficult to determine because of this.Approximate position and equinox: R.A. 22h 56^m.67 Decl. + 1° 46'.7 (1950.0)

Comet HALLEY 1982₂

Date & decimal (UT) 1985 Dec 27.751

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Full moon, high patchy cloud.

ht n/e mag 3½ approx.

Total magnitude of comet (m_1) 4.75

Instrument type Newtonian

Method used I-O.

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f6

 η (3) θ (1) K

Magnification X60 (mag) (dia)

Source of comparison star mags.

X60, X120, X200
(appearance)

IHW Chart 100

Coma diameter (arc mins)

Degree of condensation 7

By drift - avge 13.3sec \approx 4'.2

Principal tails: length

Position angle ($^\circ$) —

Not seen.

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Very condensed. So much so that

nucleus suspected. Not visible however X200. No tail.

Approximate position and equinox: R.A. 22h 26'.1 Decl. -10 25'.9 (1950.0)

Comet HALLEY 1982i

Date & decimal (UT) 1985 Dec 27.744

Observer M. J. Gainsford

Location Burbage, Leics.

Sky conditions, moonlight etc.,

Poor. Full moon, high patchy cloud. limiting n/e mag c. 3½

Total magnitude of comet (m_1) 4.3

Instrument type Binos

Method used I - 0

Aperture (cm) 11 x 80

Comparison stars magnitudes

Focal ratio -

 η (1) β (2) K

Magnification 11

Source of comparison star mags.

IHW Chart 100

Coma diameter (arc mins)

Degree of condensation 5

By comp. with full stars. 7½' approx.

Principal tails: length

Position angle (°)

None seen

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Round, no detail. Seeing bad.

Approximate position and equinox: R.A. 22h 26^m.2 Decl. -1° 25'.8 (1950.0)

Comet HALLEY 1982 i

Date & decimal (UT) 1985 Dec 29^d.740

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Clear with slight mist. Moon just rising. Limiting n/e mag. c 5.

Total magnitude of comet (m_1) 4.6

Instrument type Binoculars

Method used I-O

Aperture (cm) 11 x 80

Comparison stars magnitudes

Focal ratio -

 η (3) ~~B~~ (2) K

Magnification 11

Source of comparison star mags.

IHW Chart 100

Coma diameter (arc mins)

Degree of condensation 6

 $7\frac{1}{2}'$ (comp with field stars)

Principal tails: length

Position angle ($^{\circ}$) 75°

Tail suspected

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Seen easily in twilight at Dec 29.711.

Elong. or tail about 75° .Approximate position and equinox: R.A. 22h 20.69 Decl. $-1^{\circ} 58.85$ (1950.0)

Comet HALLEY 1982 i

Date & decimal (UT) 1985 Dec 29^d.753

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Clear, but some high mist; & moon rising. Limiting n/e mag 5.

Total magnitude of comet (m_1) 4.7

Instrument type Newtonian

Method used I - O

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f6

 η (2) θ (1) KMagnification $\times 60$ (mag & tail \times dia)

Source of comparison star mags.

 $\times 120$ } (details)
 $\times 200$ }

1HW Chart 100

Coma diameter (arc mins)

Degree of condensation 7

By drift 16 sec (arge of 3) $\approx 4'$

Principal tails: length

Position angle ($^\circ$) 70° approx.Broad, rather faint, length about $14'$

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Large. Well condensed, but no nucleus

See $\times 200$. No more detail seen in coma.Approximate position and equinox: R.A. $22^h 20.66$ Decl. $1^\circ 59.06$ (1950.0)

Comet HALLEY 1982 i

Date & decimal (UT) 1985 Dec 31^d-801

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Very clear after rain, but hazy near W. horiz. It r/e mag near θ , 5Total magnitude of comet (m_1) 4.5

Instrument type Binoculars

Method used I - 0

Aperture (cm) 11 x 80

Comparison stars magnitudes

Focal ratio

 $\eta - 5$

Magnification 11

Source of comparison star mags.

1 HW Chart 100

Coma diameter (arc mins)

Degree of condensation 6

Not estimated

Principal tails: length

Position angle ($^{\circ}$) 60° approx. 1° (possibly)

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details.

Very bright & well condensed. Tail suspected as shown

Approximate position and equinox: R.A. 22h 15^m.5 Decl. - $2^{\circ} 30'.4$ (1950.0)

Comet HALLEY 1982 i

Date & decimal (UT) 1985 Dec 31^d. 815

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Very clear after rain, but misty on W horizon. Lt n/e mag near θ , δ .Total magnitude of comet (m_1) 4.6

Instrument type Newtonian

Method used I-O

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f6

 θ (1) θ (2) ϵ Magnification $\times 60$ (mag \times dia)

Source of comparison star mags.

1HW Chart 100

 $\times 120$
 $\times 200$
 $\times 300$ } detail

Coma diameter (arc mins)

Degree of condensation 7

By drift. Avg 16 sec (of 3) \pm 4'

Principal tails: length

Position angle ($^\circ$) 75 $^\circ$

Broad. > 14' long.

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Very distinct. Well condensed but no nucleus

seen $\times 300$. In $\times 300$ possible excrescence on coma at PA 170 $^\circ$ or soApproximate position and equinox: R.A. 22^h 15^m.4 Decl. -2 $^\circ$ 30'.6 (1950.0)

Comet HALLEY 1982 i

Date & decimal (UT) 1986 Jan 03.735

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Very clear but some urban haze & light to SW, where limiting n/e mag $4\frac{1}{2}$ Total magnitude of comet (m_1) 4.85

Instrument type Binoculars

Method used I-0

Aperture (cm) 11 x 80

Comparison stars magnitudes

Focal ratio

0 (1) 8 (3) 53

Magnification

Source of comparison star mags.

I. H. W. Chart 100

Coma diameter (arc mins)

Degree of condensation 6

Not estimated.

Principal tails: length

Position angle ($^{\circ}$) 65° Possibly 1° .

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Very noticeable. Picked up straight
away in binoculars but definitely invisible to naked eye.Approximate position and equinox: R.A. 22h 08^m.7 Decl. $-3^{\circ} 11'.4$ (1950.0)

Comet HALLEY 1982 I

Date & decimal (UT) 1986 Jan 03.746

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Very clear, but urban sky pollution to SW, where Δ r/e mag $4\frac{1}{2}$. Partly observed through leafless branches of nearby oak tree

Total magnitude of comet (m_1) 4.9

Instrument type Newtonian

Method used I - 0.

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f6

0 (1) 8 (2) 53

Magnification x60 (mag, dia, tail)
 x120 (tail, nucleus)
 x200 (nucleus etc)

Source of comparison star mags.

1HW Chart 100

Coma diameter (arc mins)

Degree of condensation 7

By drift, avgs 14 ^{sec} 3.5 (NB Twilight)

Principal tails: length

> 18'

Position angle ($^{\circ}$) 75 $^{\circ}$ approx

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Well condensed but no nucleus. Structure in tail glimpsed but not held, because of twilight & haze.

Approximate position and equinox: R.A. 22h 08^m.6 Decl. -3 $^{\circ}$ 11'.5 (1950.0)

Comet HALLEY 1982 i

Date & decimal (UT) 1986 Jan 10.751

Observer M. J. Gainsford

Location Basworth Battlefield Centre

Sky conditions, moonlight etc.,

lt n/e mag Leics.

Clear, slight mist, but horizon haze 4.2 (twilight) W 1° 24'.4 N 52° 35'.7

Total magnitude of comet (m_1) 4.5

Instrument type Binoculars

Method used I - 0

Aperture (cm) 11 x 80

Comparison stars magnitudes

Focal ratio

38(3) 8(1) 47

Magnification

Source of comparison star mags.

IHW Chart 100

Coma diameter (arc mins)

Degree of condensation 6

Principal tails: length

Position angle (°) 75° - 80°

V. noticeable tail. Length approx. 1°

General description of coma shape, nucleus, jets, tails etc. Use reverse of form for field sketch and other details. Well condensed with long tail. But for horizon haze & atmospheric extinction, would have probably been seen by n/e.

Approximate position and equinox: R.A. 21h 54m.4 Decl. 4° 36'.7 (1950.0)

Comet **HALLEY 1982i** Date & decimal (UT) 1986 Jan 10.788

Observer **M. J. Gainsford** Location **Bosworth B/F Centre, Leics**
 W $1^{\circ} 24'.4$ N $52^{\circ} 35'.7$

Sky conditions, moonlight etc.,
Clear but for haze, becoming thick near horizon. Near β at n/e mag only $3\frac{1}{2}$.

Total magnitude of comet (m_1) **4.9** Instrument type **Newtonian**

Method used **I-O** Aperture (cm) **25 cm**

Comparison stars magnitudes Focal ratio **f/6**
0 (1) β (2) 53. Low accuracy (haze) Magnification **x 60 (dia & mag)**
X 120
X 200

Source of comparison star mags.
1 HW Chart 100.

Coma diameter (arc mins) Degree of condensation **7**
By drift 13 sec (avg of 3) \pm 3'.2

Principal tails: length Position angle ($^{\circ}$) **About 80°**
Tail visible even in haze. Length not estimated.

General description of coma shape, nucleus, jets, tails etc. Use reverse of form
 for field sketch and other details. **Viewed through horizon haze, quite low.**
Mag & dia estimates therefore probably too low. Well condensed.

Approximate position and equinox: **R.A. $21^h 54^m.3$ Decl. $-4^{\circ} 37'.1$ (1950.0)**

Comet HALLEY 1982i

Date & decimal (UT) 1985 Jan 19.758

Observer M. J. Gainsford

Location Burbage, Leics

Sky conditions, moonlight etc.,

Comet low. Moon (1st Q) bright, but sky clear. Lt n/e mag > 3 at 4 AltTotal magnitude of comet (m_1) 3.4

Instrument type Binos.

Method used I-O

Aperture (cm) 11x80

Comparison stars magnitudes

Focal ratio -

 β (2) θ (3) ξ

Magnification x11

Source of comparison star mags.

JHW Chart 4A

Coma diameter (arc mins)

Degree of condensation -

Not estimated

Principal tails: length

Position angle ($^{\circ}$) $\frac{1}{4}$ β/ξ at least : 42' plus 65 $^{\circ}$

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Very prominent despite bright sky.

Probable increase in brightness since 15th.

Approximate position and equinox: R.A. - Decl. - (-)

Comet HALLEY 1982 i

Date & decimal (UT) 1986 Jan 19.760

Observer M. J. Gainsford

Location Burbage,
Leics

Sky conditions, moonlight etc.

Comet low, sky bright (moon & twilight) lt n/e near horiz. >3.

Total magnitude of comet (m_1) 3.2

Instrument type Newtonian

Method used I-O.

Aperture (cm) 25

Comparison stars magnitudes

Focal ratio f/6

 β (1) θ (3) ξ Magnification X 60 (mag; conc.)
X 120
X 240 (nucleus)

Source of comparison star mags.

IHW Chart 4A

Coma diameter (arc mins)

Degree of condensation 6

By drift 3'.4. low accuracy.

Principal tails: length

Position angle ($^\circ$)

-

60° or so

General description of coma shape, nucleus, jets, tails etc. Use reverse of form

for field sketch and other details. Very well condensed, but no nucleus seen

x 240. However 'hollow' seen behind coma in tail direction. Impressive

Approximate position and equinox: R.A. 21h 38^m.25 Decl. -6° 14'.3 (1950.0)