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The International Comet Quarterly (*ICQ*) is a journal devoted to news and observation of comets, published by the Smithsonian Astrophysical Observatory in Cambridge, Massachusetts. Regular issues are published 4 times per year (January, April, July, and October), with an annual *Comet Handbook* of ephemerides published normally in the first half of the year as a special fifth issue. An index to each volume normally is published in every other October issue (even-numbered years); the *ICQ* is also indexed in *Astronomy and Astrophysics Abstracts* and in *Science Abstracts Section A*.

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Cometary observations should be sent to the Editor in Cambridge; all data intended for publication in the *ICQ* that is not sent via computer electronic mail should be sent on standard *ICQ* observation report forms, which can be obtained upon request from the Editor. Those who can send observational data (or manuscripts) in machine-readable form are encouraged to do so (especially through e-mail via the computer networks SPAN (6700::DAN) or Internet (ICQ@CFA.HARVARD.EDU), or via floppy disks that can be read on an IBM PC), and should contact the Editor for further information. The *ICQ* has extensive information for comet observers on the World Wide Web, including the Keys to Abbreviations used in data tabulation (see URL <http://cfa-www.harvard.edu/icq/icq.html>). In early 1997, the *ICQ* published a 225-page *Guide to Observing Comets*; this edition is now out of print, but a revised edition is under preparation.

Most of the Observation Coordinators (OCs) listed below have e-mail contacts with the *ICQ* Editor; observers in the general area of such OCs who lack access to e-mail networks may send data to the OC for relay to the *ICQ* in electronic form.

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EDITORIAL NOTICE.

In addition to preparing articles for the IWCA II proceedings issue, scheduled for the July issue, we are working with authors on editing several other articles. One such article is a multi-authored paper/obituary on the renowned visual German observer Max Beyer. Anybody with interesting correspondence or information regarding Beyer's work with comets is encouraged to share this with the *ICQ* editor, to make the article even more useful to readers.

Letter to the Editor: Call for CCD Observations of Comet 9P

In the January 2000 *ICQ*, Gary Emerson called for advanced observers to join the Deep Impact Mission's Small Telescope Science program. To date, 15 amateurs and professionals have joined this program and have started CCD observations of comet 9P/Tempel 1. I am working with Gary Emerson and Lucy McFadden, University of Maryland, to expand this science program.

We are looking for additional advanced CCD observers to monitor comet 9P from June through December of this year, when the comet passes through opposition and is visible from the northern and southern hemispheres. We will analyze CCD images to provide scientific information to the mission's design team including rotation rate and state of cometary activity. We suggest the minimum requirements for obtaining useful images are a good-quality CCD camera, a telescope-CCD system that matches the seeing at the observing location, standard photometric *V* and *R* filters or color *RGB* filters with an infrared-cutoff filter, and a good working knowledge of CCD calibrations. We are requesting images to be sent in FITS format to the University of Maryland. We will post images on an observers' web page (see http://www.ss.astro.umd.edu/deepimpact/stsp/images_www/index.html) and site observers' contributions in any publications.

To learn more about the Small Telescope Science Program, visit the website <http://www.ss.astro.umd.edu/deepimpact/stsp>. For information about the Deep Impact Mission, visit <http://www.ss.astro.umd.edu/deepimpact> and <http://www.ball.com/aerospace/deepimpact.html>.

We appreciate any assistance observers can give to this program. Potential observers can contact us by email at: stefmcl@astro.umd.edu, gemerson@ball.com, or mcfadden@astro.umd.edu.

— Stephanie McLaughlin (Research Assistant, University of Maryland)

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Tabulation of Comet Observations

Due to time constraints, those observations contributed on paper will appear in the July issue.

Because numerous CCD astrometrists are contributing comet magnitudes using the new USNO A2.0 catalogue, we are assigning code **UO** to such magnitudes published in the *ICQ* because — though it is technically an unacceptable source for stellar photometry, with errors of up to 2 magnitudes or more — some of these magnitudes of comets that are not heavily observed may prove useful if there are no other available magnitudes for certain time periods.

Note: With the large number of comet designations that are issued first as minor-planet designations, we are finding some rather high subscripted numbers — for example, P/1999 XN₁₂₀ (Catalina). This presents a problem in the tabulating of observations in standard *ICQ* 80-character, 1-line format, because there is only space for four characters (8-11) after the year part of the designation. Thus, for P/1999 XB₆₉ (LINEAR), the designation can be fit into the available space as ♣♣P1999XB69 (columns 1-11, where ♣ represents a blank space, and where the year/date begins in column 12). But for minor-planet-type designations of comets in which the subscripted number is > 99, the first two digits need to be truncated to letters (as in 10 = A, 11 = B, etc.), so that P/1999 XN₁₂₀ is encoded in *ICQ* tabulated format as ♣♣P1999XNCO.

Descriptive Information, to complement the Tabulated Data (all times UT):

◇ Comet C/1995 O1 (Hale-Bopp) ⇒ 2000 Jan. 28.42: coma consists of a central, almost-stellar area, surrounded by ≈ 1'-1/2 of bright coma; outside of this is another 0'5 or so of very faint coma [RAE]. Jan. 30.50: a star of mag ~ 10 was on the edge of the coma, which affected the obs., particularly the coma dia. [RAE]. Feb. 6.40: "the bright central cond. visible a week ago is no longer present; possible thin cloud interference" [RAE]. Mar. 27.36: "comet now becoming difficult as it moves into dense background closer to LMC; requires a dark sky and very good dark adaption" [RAE]. Apr. 8.52: obs. at Waddi Farm, W. Australia [TSU02].

◇ Comet C/1997 BA₆ (Spacewatch) ⇒ 1999 Jan. 14.46: "due to its high-S δ, all obs. of this comet in early 1999 were made at a low alt., at times being only a few deg above the S horizon; on this particular occasion, there was also some interference from thin cirrus clouds" [HAL]. Feb. 9.29: poor seeing [HAL]. 2000 Jan. 2.81: "comet was sitting right above a 14th-mag star, which gave the comet a very condensed look and also made the outer coma difficult to see" [PEA]. Jan. 27.45: alt. ≈ 17° [RAE]. Jan. 28.41: comet at better alt. tonight, but still not visible [RAE]. Feb. 5.41: alt. ≈ 16°, but no extinction correction needed; difficult obs. [RAE]. Feb. 9.40: background-star interference [RAE].

◇ Comet C/1998 M5 (LINEAR) ⇒ 1999 Jan. 5.08: low alt. [HAL]. Jan. 15.54: some interference from twilight [HAL]. Mar. 4.10: bright sky due to impending moonrise; the comet was near its lowest culmination [HAL]. 2000 Feb. 27.15: central cond. of dia. < 2" and mag 16.8; coma was symmetrical w/o internal structure and was accompanied by a faint, narrow, diffuse tail [ROQ]. Mar. 15.32: obs. affected somewhat by thin cirrus; the comet was located only 11' from the North Celestial Pole [HAL].

◊ *Comet C/1998 P1 (Williams)* \Rightarrow 1999 Jan. 11.41: crescent moon located 20° away; also, interference from cirrus clouds [HAL]. Jan. 14.42: w/ 41-cm $f/4$ L ($72\times$), 25' tail in p.a. 163° [HAL]. Jan. 23.36: w/ 41-cm $f/4$ L ($72\times$), 15' tail in p.a. 175° [HAL]. Feb. 6.17: "cirrus clouds; nevertheless, the comet is clearly fainter and more diffuse than it was in Jan."; w/ 41-cm $f/4$ L ($72\times$), 20' tail in p.a. 155° [HAL]. Feb. 10.23: "in 41-cm L, there is a sharp, small, central cond., surrounded by a relatively diffuse coma"; at $72\times$, 20' tail in p.a. 170° [HAL]. Feb. 18.24: w/ 41-cm $f/4$ L ($72\times$), 20' tail in p.a. 150° [HAL]. Mar. 5.10: poor sky conditions (cirrus); comet appears very diffuse [HAL]. Mar. 21.28: "the comet appears extremely diffuse; little more than a brightening of the background sky" [HAL].

◊ *Comet C/1998 T1 (LINEAR)* \Rightarrow 1999 Jan. 5.10: on both obs. during Jan., there was some interference from zodiacal light; the comet was a diffuse and very difficult object [HAL]. Apr. 18.47: on all three unsuccessful attempts, there was interference from low alt. and twilight [HAL]. May 15.45: low alt.; some interference from twilight [HAL]. July 16.18: "brief obs. (≈ 5 min) before field was covered by clouds; mag measurement is essentially a guess" [HAL].

◊ *Comet C/1998 U5 (LINEAR)* \Rightarrow 1999 Jan. 12.07: low alt.; also, obs. somewhat hampered by proximity of several moderately bright stars [HAL].

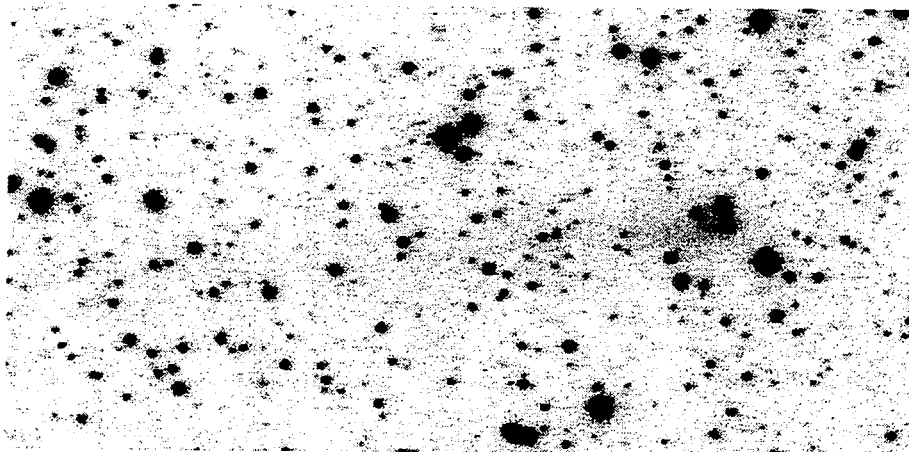
◊ *Comet C/1999 A1 (Tilbrook)* \Rightarrow 1999 Jan. 18.08: low alt. [HAL].

◊ *Comet C/1999 E1 (Li)* \Rightarrow 1999 Apr. 10.13: windy conditions; moderately rich star field [HAL].

◊ *Comet C/1999 F2 (Dalcanton)* \Rightarrow 1999 June 9.25: "on both occasions, the comet was an extremely faint — but definite — object at the visual threshold" [HAL].

◊ *Comet C/1999 H1 (Lee)* \Rightarrow 1999 May 2.13: low alt. above southern horizon, bright moonlight [HAL]. May 3.13: beginning of a faint eastward tail suspected in 41-cm L [HAL]. May 12.16: w/ 41-cm $f/4$ L ($72\times$), 20' tail in p.a. 125° [HAL]. May 19.15: some interference from moonlight (crescent moon) and cirrus clouds; w/ 41-cm $f/4$ L ($72\times$), 20' tail in p.a. 130° [HAL]. June 1.13: "obs. hurried due to impending moonrise and incoming clouds; the given brightness is probably an over-estimate" [HAL]. June 12.16: w/ 20-cm $f/6$ L ($49\times$), 45' tail in p.a. 120° [HAL]. June 20.15: "interference from low alt., twilight, and moonlight, and rain sprinkled during the obs.(!), but the sky remained relatively clear at the comet's location" [HAL]. Aug. 11.06: obs. made from Chadegan, Iran, on morning of total solar eclipse [HAL]. Aug. 19.46: interference from fast-moving clouds; brightness measurement is little more than a guess; the tail measurement refers to the anti-tail, which was fairly bright and distinct; w/ 41-cm $f/4$ L ($72\times$), 20' tail in p.a. 110° [HAL]. Aug. 24.45: on this and subsequent two observations, the tail measurement refers to the anti-tail; w/ 41-cm $f/4$ L ($72\times$), 20' tail in p.a. 100° [HAL]. Sept. 6.43 and 19.43: w/ 41-cm $f/4$ L ($72\times$), 20' tail in p.a. 90° [HAL]. Sept. 12.44: w/ 41-cm $f/4$ L ($72\times$), 30' tail in p.a. 90° [HAL]. Sept. 19.43: two tails observed in 41-cm L; the given measurement refers to the previously-observed anti-tail, which — although fainter than during previous observations — is the brighter of the two; the second tail, which is in p.a. $\approx 120^\circ$, is fainter and broader, but also appears to be longer, extending for perhaps 30' before becoming lost in the open cluster Tombaugh 5 [HAL]. Sept. 30.15: same basic appearance, with two tails, as on Sept. 19; the anti-tail is still the brighter, narrower, and shorter of the two tails, although both are quite faint [HAL]. Oct. 3.17: "the bright star ξ Cas was close to the comet and in the same approximate direction as the southeastern of the two previously observed tails; w/ 41-cm L, the anti-tail was not seen, and, when the star was kept out of the field-of-view, some very weak material could be seen in that general direction, but nothing more" [HAL]. Oct. 29.11: significant fading since earlier in the month [HAL]. 2000 Jan. 2.54: "difficult object of low surface brightness in a relatively bright sky background due to zodiacal light" [PEA].

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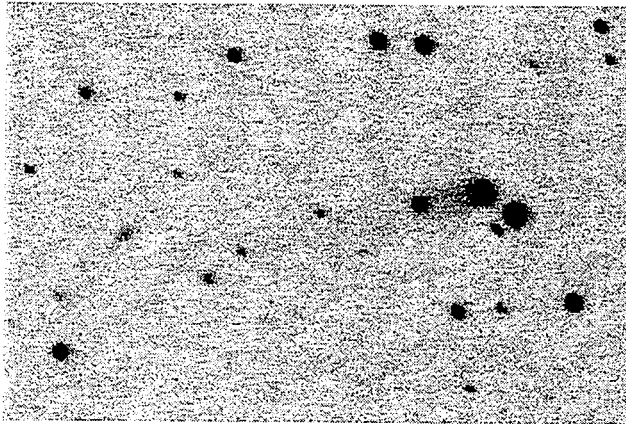


Above is a 2-min CCD exposure of comet C/1999 H3 (LINEAR), taken on 2000 Mar. 13.878 UT by L. Kiss, K. Sziládi, and K. Sárnecsky with the 60/90/180-cm Schmidt telescope at the Piszkéstető, Hungary.

◊ *Comet C/1999 H3 (LINEAR)* \Rightarrow 2000 Feb. 6.02: ST7 CCD used in binning 2 \times 2; ref. star SAO 63903; all comparison stars taken from Hipparcos catalogue on CD-ROM Guide 6.0 [LIG].

◊ *Comet C/1999 J2 (Skiff)* \Rightarrow 2000 Apr. 5.47: central cond. of 3" and mag 17.1; coma was slightly asymmetrical in p.a. 350°, blending into a faint diffuse tail [ROQ].

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Above is a 10-min CCD exposure of comet C/1999 J2 (Skiff), taken on 2000 Jan. 1.199 UT by K. Sárnecsky, L. Kiss, and K. Sziládi with the 60/90/180-cm Schmidt telescope (+ 1536 \times 1024-pixel CCD) at the Pisszkésető Station of the Konkoly Observatory.

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◊ *Comet C/1999 J3 (LINEAR)* \Rightarrow 1999 July 14.25: low alt. [HAL]. July 16.17: brief obs. (\approx 5 min) before clouds covered up field; the comet is clearly brighter than during previous observations [HAL]. Sept. 19.45: "in 41-cm L, the possible beginning of a very weak tail extending roughly westward was suspected; however, this feature was not seen again during subsequent observations" [HAL]. Nov. 6.76: "impressive sight, as the comet traverses right through the middle of the LMC; coma dia. may have been affected slightly by the brighter sky background of the LMC" [PEA]. Dec. 14.56: "comet not visible; however, the sky was quite bright due to moonlight" [PEA]. 2000 Jan. 2.58: "large, diffuse object of low surface brightness, best seen at low power" [PEA].

◊ *Comet C/1999 K1 (SOHO)* \Rightarrow 1999 May 20.93: searches made during broad daylight; attempts also made with 10 \times 70 B [HAL]. May 21.05: search made during late afternoon (with sun hidden behind a tree trunk); attempt also made with 10 \times 70 B [HAL].

◊ *Comet C/1999 K6 (LINEAR)* \Rightarrow 1999 June 6.31: obs. attempt slightly hampered by light of impending moonrise [HAL]. Aug. 31.17: "during all these reported obs. attempts, the comet was traversing rich star fields in the Sagittarius Milky Way, and the attempts were accordingly affected to some extent; on this particular occasion, a very faint but distinct candidate was suspected; however, examination of the Digital Sky Survey and re-examination of the field on Sept. 5 revealed that the candidate was a small clump of faint stars" [HAL]. Oct. 28.07: fairly low alt. [HAL].

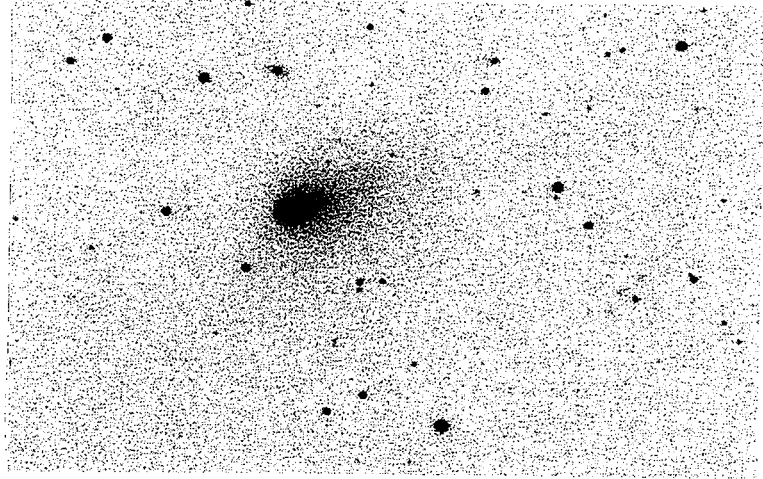
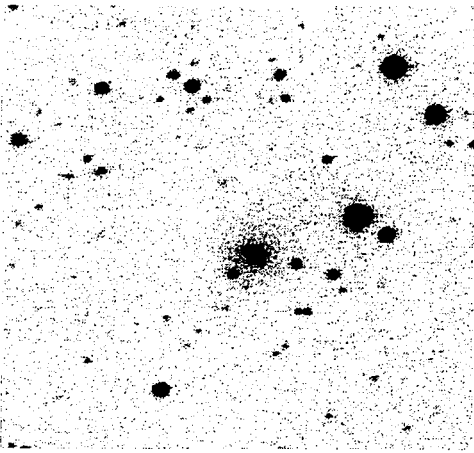
◊ *Comet C/1999 K6 (LINEAR)* \Rightarrow 1999 June 11.30: rich star field (which, to some extent, hampered all obs. attempts) [HAL].

◊ *Comet C/1999 K8 (LINEAR)* \Rightarrow 1999 Aug. 19.44: some interference from (a) clouds occasionally passing through and (b) a nearby faint star [HAL]. Sept. 1.19: interference from a moderately rich star field [HAL]. Oct. 1.14: some interference from a nearby star of mag \approx 11 [HAL]. Dec. 31.71: 3-min exp. shows fan-shaped coma and faint tail [SAR02 and L. Kiss, Pisszkésető, Hungary].

◊ *Comet C/1999 L3 (LINEAR)* \Rightarrow 2000 Jan. 1.16: 2-min CCD exp. also shows 6' anti-tail in p.a. 140° and faint, fan-shaped tail structure in p.a. 140°-295°, plus another faint, 1'-long tail in p.a. 320° [SAR02 and L. Kiss, Pisszkésető, Hungary]. Jan. 25.86: ST7 CCD used in binning 2 \times 2; ref. star SAO 98832; all comparison stars taken from Hipparcos catalogue on CD-ROM Guide 6.0 [LIG]. Jan. 30.44: w/ 25.6-cm L (169 \times), central cond. of mag 14.1 [BIV]. Feb. 2.49: GUIDE 6.0 software used for ref. stars [NAG08]. Feb. 5.37: w/ 25.6-cm L (169 \times), central cond. of mag 14.6 [BIV]. Feb. 5.89: ref. star SAO 80496 (see note for Jan. 25.86) [LIG]. Feb. 9.57: GUIDE 6.0 software used for ref. stars [NAG08]. Feb. 10.82: ref. star SAO 79980 (see note for Jan. 25.86) [LIG]. Feb. 10.89: TC245 CCD chip; three GSC ref stars used (the scatter of m_1 from the three stars is within 0.3 mag) [MIL02]. Feb. 22.86: ref. star SAO 78847 (sp. F5, $V = 9.04$ from *Guide6* software) [MIL02]. Feb. 23.79: ref. star SAO 78773 (see note for Jan. 25.86) [LIG]. Mar. 4.85: ref. star SAO

[text cont. from previous page] 58818 (see note for Jan. 25.86) [LIG].

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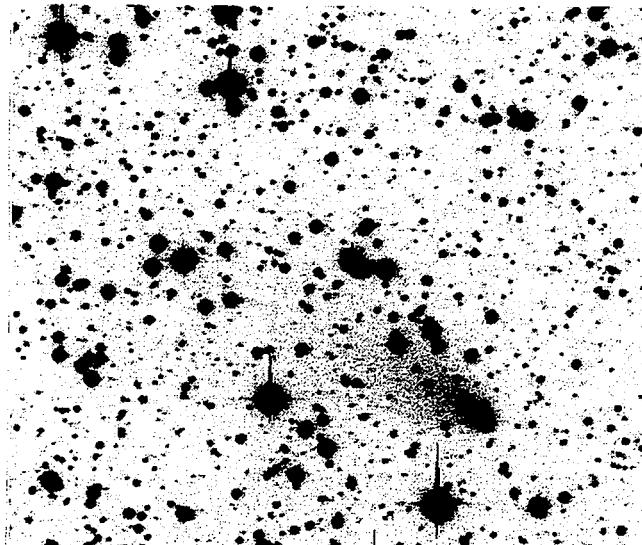
Above are two CCD exposures taken by K. Sárnecky, L. Kiss, and K. Sziládi with the 60/90/180-cm Schmidt telescope (+ 1536×1024-pixel CCD) at the Pizskéstető Station of the Konkoly Observatory. At left is a 3-min exposure of comet C/1999 K8 (LINEAR), taken on 1999 Dec. 31.713 UT. At right is a 2-min exposure of comet C/1999 L3 (LINEAR), taken on 2000 Jan. 1.153.

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◇ Comet C/1999 N2 (Lynn) ⇒ 1999 July 22.15: poor sky conditions, including clouds; also, interference from moonlight [HAL]. July 24.15: bright moonlight [HAL]. Aug. 19.13: interference from moonlight; comet not definitely visible in 10×70 B [HAL]. Sept. 6.14: low alt.; also, occasional interference from clouds [HAL].

◇ Comet C/1999 S3 (LINEAR) ⇒ 1999 Oct. 31.15: "small and very condensed coma; the coma did not appear as condensed during subsequent observations, suggesting the possibility of a nuclear outburst" [HAL]. Dec. 31.70: 5-min exp. shows 4'5 slightly curved tail in p.a. 30°-70° [SAR02 and L. Kiss, Pizskéstető, Hungary]. 2000 Jan. 4.82: ST7 CCD used in binning 2×2; all comparison stars taken from Hipparcos catalogue on CD-ROM Guide 6.0 [LIG].

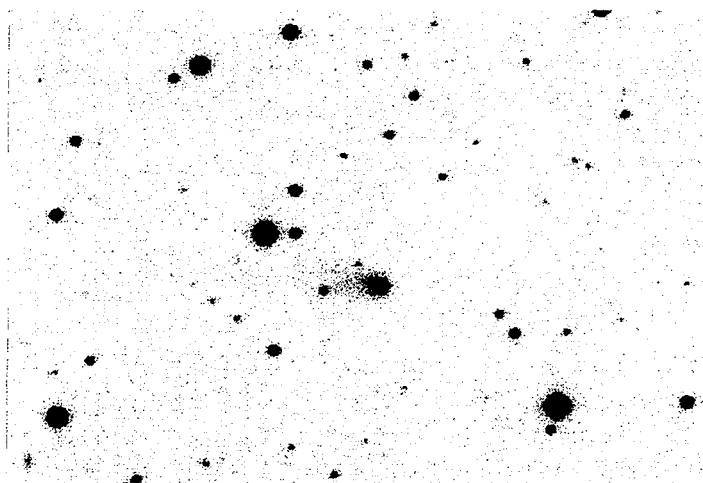
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Above is a 5-min CCD exposure of comet C/1999 S3 (LINEAR), taken on 1999 Dec. 31.703 UT by K. Sárnecky, L. Kiss, and K. Sziládi with the 60/90/180-cm Schmidt telescope at the Pizskéstető Station.

◇ Comet C/1999 S4 (LINEAR) ⇒ 1999 Oct. 15.27: mediocre sky conditions [HAL]. Oct. 31.28: "the comet was located in a very blank field, which made identification of its exact location difficult; a very faint candidate was nevertheless suspected but could not be confirmed" [HAL]. Nov. 1.24: a very faint candidate, similar to that seen the previous night, was suspected; however, the Digital Sky Survey showed two faint stars near the comet's expected location, and consequently the presence of the comet could not be confirmed; the comet was unequivocally detected on the following night [HAL]. Dec. 27.12: brightness measurement possibly affected by faint star within the comet's coma [HAL]. 2000 Jan. 2.89: ref. star HIP 10369 (sp. F5, $V = 8.31$ from Guide6 software) [MIL02]. Jan. 4.83: ST7 CCD used in binning 2×2 ; ref. star SAO 55362; all comparison stars taken from Hipparcos catalogue on CD-ROM Guide 6.0 [LIG]. Jan. 11.74: ref. star SAO 55244 (see note for Jan. 4.83) [LIG]. Jan. 11.83: comet very close to 13th-mag star [MEY]. Jan. 23.76: ref. star SAO 74920 (see note for Jan. 4.83) [LIG]. Jan. 27.75: ref. star SAO 74857 (see note for Jan. 4.83) [LIG]. Feb. 10.77: ref. star SAO 74870 (see note for Jan. 4.83) [LIG]. Feb. 19.80, 23.80, and 25.80: observers Salvador Sanchez and ROD03 at Mallorca, Spain [ROD03]. Feb. 23.77 and Mar. 4.83: ref. star SAO 74737 (see note for Jan. 4.83) [LIG]. Feb. 27.80: observers M. Villalonga and ROD03 at Mallorca, Spain [ROD03].

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Above is a 2.5-min CCD exposure of comet C/1999 S4 (LINEAR), taken on 1999 Dec. 31.809 UT by K. Sárnecszy, L. Kiss, and K. Sziládi with the 60/90/180-cm Schmidt telescope (+ 1536×1024-pixel CCD) at the Piskéstető Station of the Konkoly Observatory.

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◇ Comet C/1999 T1 (McNaught-Hartley) ⇒ 1999 Oct. 12.27: during all these reported obs. attempts the comet's δ was near or S of -40° , and thus all attempts were affected by low alt. [HAL]. 2000 Mar. 3.40: limiting stellar mag ≈ 15.0 ; comet near limit of detection, and required a second night's obs. to confirm [RAE]. Mar. 5.24: obs. from Haleakala summit in HI; "comet at very low alt. ($< 5^\circ$), and I may have glimpsed it, but it set too quickly to confirm any motion" [LIN04]. Mar. 8.36: central cond. more strongly evident than on previous nights; obs. cut short by incoming cloud [RAE]. Mar. 23.34: "comet is now at a lower alt.; this, combined with wind, poor seeing, and moonlight being scattered from over the E horizon meant this comet was not definitely seen tonight; may have been glimpsed twice for a couple of seconds each time, but could not confirm; obs. was also hindered by the fact that the comet was not placed very near to any bright (brighter than mag 13.5) stars; limiting stellar mag almost 15.0" [RAE]. Mar. 26.33: comet possibly glimpsed at mag ≈ 14 [RAE].

◇ Comet C/1999 Y1 (LINEAR) ⇒ 2000 Feb. 28.77: comet was in the double open cluster χ and h Per, $\approx 4'$ east of center of h Per = NGC 869 [LEH]. Apr. 6.83: comet viewed through aurora [RES].

◇ Comet C/2000 CT₅₄ (LINEAR) ⇒ 2000 Apr. 24.61: GUIDE 7.0 software used for ref. stars [NAK01].

◇ Comet 9P/Tempel 1 ⇒ 2000 Jan. 31.67: w/ 25.6-cm L (169×), search at very low alt. before dawn (stellar limiting mag 12.2) [BIV]. Feb. 11.86: comet at very low alt. [YOS04].

◇ Comet 10P/Tempel 2 ⇒ 1999 May 15.32: obs. attempt hampered by two 12th-mag stars close to comet's expected location [HAL]. Aug. 19.16: interference from moonlight [HAL]. Aug. 31.14: interference from two nearby bright stars [HAL]. Sept. 5.20: "the comet has moved into an extremely dense star field of the Sagittarius Milky Way, with the star background essentially forming a dense 'carpet' that provides very little contrast with the comet's coma; it spends the next couple of weeks in this 'carpet', and all obs. during this period are accordingly somewhat affected" [HAL]. Sept. 28.12: "the comet is now off the 'carpet' (see Sept. 5.20 notes), although the surrounding star field is still very rich, and

[text cont. from previous page] on this occasion the obs. was affected by stars in and near the coma" [HAL]. Oct. 3.14: "first 'clean' obs. (i.e., without interference from background stars and/or moonlight) since July" [HAL]. Oct. 10.13: brightness measurement affected by star of mag ≈ 10 within the coma, which the comet moved almost directly over during the course of the obs. [HAL]. Nov. 14.51: "comet seems to have become slightly more condensed since obs. made 5-6 nights ago" [PEA].

◊ *Comet 21P/Giacobini-Zinner* \Rightarrow 1999 Jan. 4.08: "throughout all these obs., the comet exhibited a coma extension — not quite a tail — toward the NE; on this particular occasion, the comet exhibited a moderately sharp cond. that suggests some activity since the previous obs. in Dec. 1998" [HAL].

◊ *Comet 29P/Schwassmann-Wachmann 1* \Rightarrow 1999 Mar. 28.48: "the comet's appearance is completely stellar, indicating that the outburst has just started" [HAL]. June 12.21: "the comet's appearance suggests the outburst is a few days old, which is reasonably consistent with my earlier negative obs. on June 4" [HAL]. 2000 Feb. 11.84: comet in crowded star field [YOS04].

◊ *Comet 37P/Forbes* \Rightarrow 1999 Mar. 21.50: "visual recovery (!); the comet was only observed for a few min before twilight overwhelmed it" [HAL]. Mar. 22.50: "confirmation of visual recovery; distinct motion was observed over a period of 20 min" [HAL].

◊ *Comet 52P/Harrington-Abell* \Rightarrow 1999 Jan. 8.20: "fan-shaped coma, with a near-cond. near the apex; throughout the subsequent observations, this appearance gradually evolved toward a more circularly shaped coma; in general, this comet appeared as a fainter and smaller version of comet P/1998 U3" [HAL]. Feb. 4.12: distinctly fainter and less condensed than in Jan.; the obs. was hampered somewhat by a couple of faint stars within the coma [HAL].

◊ *Comet 59P/Kearns-Kwee* \Rightarrow 2000 Jan. 7.16: central cond. presented a diffuse disk of mag 16.7; coma appeared asymmetrical in p.a. 270° [ROQ]. Jan. 29.16: central cond. of dia. $< 3''$ and mag 16.6; coma was asymmetrical in p.a. 270° ; tail appeared diffuse w/o significant substructure [ROQ]. Mar. 11.14: central cond. of dia. $< 3''$ and mag 17.9; low-intensity coma appeared generally symmetrical, but irregularly bounded [ROQ].

◊ *Comet 60P/Tsuchinshan 2* \Rightarrow 1999 Feb. 10.18: rich star field [HAL]. Mar. 5.11: poor conditions (cirrus) [HAL]. Mar. 20.15: interference from nearby 10th-mag star [HAL]. Apr. 6.18: interference from nearby 11th-mag star [HAL].

◊ *Comet 63P/Wild 1* \Rightarrow 1999 Dec. 5.50: very vague and diffuse candidate suspected, confirmed as being the comet on Dec. 8 [HAL]. 2000 Jan. 2.82: "coma appeared large, diffuse, and of low surface brightness, only seen at low power ($90\times$)" [PEA]. Jan. 12.19: "ill-defined coma, diffuse object, not easy" [MEY].

◊ *Comet 74P/Smirnova-Chernykh* \Rightarrow 2000 Jan. 9.17: central cond. of dia. $> 2''$ and mag 16.9; coma was symmetrical, merging into a faint, diffuse, and featureless tail [ROQ]. Jan. 30.12: central cond. of dia. $< 2''$ and mag 16.2; the coma appeared rather sharply bounded, but slightly asymmetrical in p.a. 80° [ROQ]. Apr. 28.15: central cond. of $< 3''$ and mag 17.7; coma appeared slightly asymmetrical in p.a. 90° [ROQ].

◊ *Comet 106P/Schuster* \Rightarrow 1999 Oct. 29.14: obs. hurried during to incoming clouds [HAL]. 2000 Jan. 4.11: central cond. of dia. $> 2''$ and mag 15.9; coma appeared somewhat asymmetrical in p.a. 73° [ROQ]. Jan. 11.75: ST7 CCD used in binning 2×2 ; ref. star SAO 92306; all comparison stars taken from Hipparcos catalogue on CD-ROM Guide 6.0 [LIG]. Jan. 23.77: ref. star SAO 92611 (see note for Jan. 11.75) [LIG]. Jan. 27.77: ref. star SAO 74978 (see note for Jan. 11.75) [LIG].

◊ *Comet 114P/Wiseman-Skiff* \Rightarrow 2000 Jan. 2.92: ref. star HIP 14150 (sp. G8V; $V = 6.62$ from Guide6 software [MIL02]). Jan. 4.84 and 11.76: ST7 CCD used in binning 2×2 ; ref. star SAO 75711; all comparison stars taken from Hipparcos catalogue on CD-ROM Guide 6.0 [LIG]. Jan. 5.08: central cond. of dia. $\approx 2''$ and mag 16.2; inner coma appeared strongly asymmetrical in p.a. 73° ; tail was faint and very diffuse w/o any readily-apparent substructure [ROQ]. Jan. 23.78: ref. star SAO 93507 (see note for Jan. 23.78) [LIG]. Jan. 25.89: ref. star 14 Tau (= HIP 17408), $V = 6.13$ from Guide6 software [MIL02]. Jan. 27.79: ref. star SAO 93592 (see note for Jan. 23.78) [LIG].

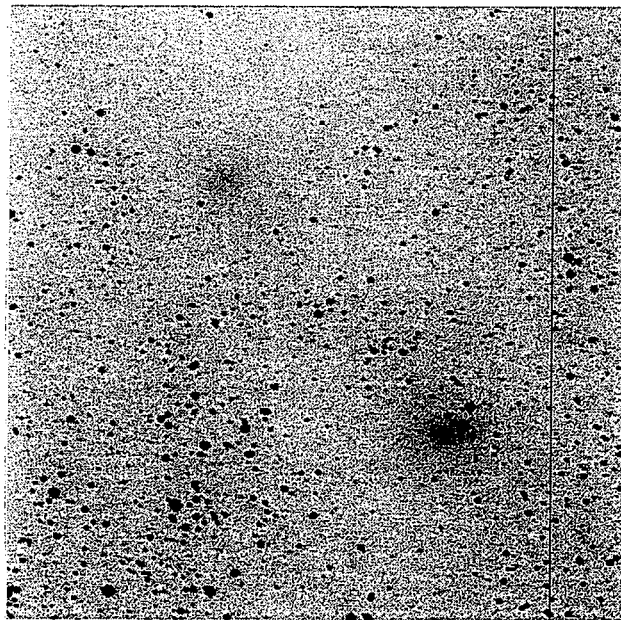
◊ *Comet 141P/Machholz 2* \Rightarrow 1999 Oct. 28.09: moderately rich star field [HAL]. Nov. 2.52: "the predicted positions at the time of obs. for both the A and D components were checked, but nothing was seen at either location" [PEA]. Nov. 3.09: moderately rich star field [HAL]. Nov. 6.08: "rich star field ($10'$ from galactic equator); comp. D would have been located just N of the cluster NGC 6631; nevertheless, the failure to detect comp. D is surprising in light of its brightness and easy observability three nights later" [HAL]. Nov. 9.09: "some interference from occasional cirrus clouds passing through the field; comp. D is surprisingly bright and easy to observe, especially considering that neither comp. was seen three nights earlier; comp. A was looked for but not seen; this may partially have been due to an error in downloading Digital Sky Survey fields and thus an imprecise knowledge of where to look" [HAL]. Nov. 10.09: "comp. D is again bright and relatively obvious; comp. A is small, faint and vague" [HAL]. Nov. 12.76: estimated comp. is located $\approx 4'$ from the other comp., which itself was vague and very faint [MOR09]. Nov. 26.08: "comp. D is significantly fainter than earlier in the month, although it is still slightly brighter and larger than comp. A" [HAL]. Dec. 5.08: "comp. A has brightened dramatically since the previous obs., and is relatively bright and easy to observe; comp. D, meanwhile, has become extremely faint, vague, and diffuse, and is quite difficult to see" [HAL]. Dec. 10.08: "comp. A is again bright and easy to see, whereas comp. D is extremely faint, vague, and difficult to observe; it appears as little more than a brightening of the sky background, and took a long time to identify" [HAL]. Dec. 26.53: "comp. A easily visible as a large diffuse object, despite the bright sky background of the zodiacal light; comp. D also searched for, but at the time

Comet 141P/Machholz 2 \Rightarrow

[text cont. from previous page] of obs. it was located almost on top of a 10th-mag star" [PEA]. Dec. 27.09: comp. A is bright and easy; comp. D could not be found [HAL]. Dec. 31.67-31.69: 1-min exposures show no other components between nucleus A and the predicted position of nucleus D [SAR02 and L. Kiss, Piskésetető, Hungary].

2000 Jan. 2.72: comp. A close to two 8th-mag stars [MEY]. Jan. 5.72 and 6.72: "w/ 35-cm f/5 L, on Jan. 5, I saw a diffuse object of dia. 1'.4, DC = 2, and $m_1 = 11.6$ (MM = S; ref = HS) at 166 \times at the predicted position for comp. D, close to my limit of visibility, though in this part of the sky, I did not have ideal conditions (disturbing light pollution); on Jan. 6, I again saw a diffuse object (dia. 2'.3, DC = 1-2, $m_1 = 11.2$, MM = S, ref = HS) at the proper position for this comp., being a little brighter and larger than on the previous night (at 92 \times); I did not have the time for seeing motion, because the comet set and conditions were not great; comp. A was much brighter and larger and very easily seen; after a challenge of my D observation, even though I am sure that I saw diffuse objects at the right positions, I think that it is probably better this to disregard my obs. of comp. D for these nights" [HOR02]. Jan. 7.43: GUIDE 7.0 software used for ref. stars (comp. A) [YOS02]. Jan. 23.74: ST7 CCD used in binning 2 \times 2; ref. star SAO 148633; all comparison stars taken from Hipparcos catalogue on CD-ROM Guide 6.0 [LIG]. Jan. 25.28: comp. D fainter than mag 13.5 (not seen) [BIV]. Jan. 25.42: poor sky, low-surface-brightness coma (comp. A); difficult obs. [RAE]. Jan. 25.57: "comp. A was a difficult object of low surface brightness in a bright sky" [PEA]. Jan. 29.95: difficult object of low surface brightness; central coma intense at 92 \times ; The Guide v.07 software used for ref. stars [DES01].

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Above is a 180-sec V-band exposure of comet 141P/Machholz 2 taken by Daisuke Kinoshita, Kyoko Muroi, Masashi Morikawa, and Hideo Fukushima on 1999 Nov. 5.39286 UT with the 1.05-m Schmidt telescope (+ SITe 2048 \times 2048 SI424AB CCD) at the Kiso Observatory, University of Tokyo. North is up and east is to the left. The image is preliminary (not bias subtracted, and not flat-fielded).

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◇ Comet P/1998 U3 (Jäger) \Rightarrow 1999 Jan. 7.22: "distinct fan-shaped coma, with central bright region — almost a cond. — near the apex; this fan shape gradually evolved into a more centrally shaped coma throughout the subsequent observations" [HAL]. Mar. 5.11: poor conditions (cirrus); also, obs. hampered by two moderately bright nearby stars [HAL].

◇ Comet P/1999 RO₂₈ (LONEOS) \Rightarrow 1999 Sept. 15.34: $m_1 = 21.0$ (second measure, in addition to tab. value) [SCO01]. Sept. 19.38: on both this occasion and on Oct. 3.27, limiting mag measurements were made both on the assumption that the comet might appear as a very small coma and/or completely stellar [HAL].

◇ Comet P/1999 V1 (Catalina) \Rightarrow 2000 Mar. 26.09: central cond. of dia. < 3" and mag 19.3; coma appeared essentially symmetrical w/o readily-discernable substructure [ROQ].

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Key to observers with observations published in this issue, with 2-digit numbers between Observer Code and Observer's Name indicating source [07 = Comet Section, British Astronomical Assn.; 16 = Japanese observers (c/o Akimasa Nakamura, Kuma, Japan); 23 = Czech group (c/o P. Pravec and V. Znojil); 32 = Hungarian group (c/o K. Sarneczky); 37 = Ukrainian Comet Section (c/o A. R. Baransky and K. I. Churyumov); 42 = Belarus observers, c/o V. S. Nevski, Vitebsk; etc.]. Those with asterisks (*) preceding the 5-character code are new additions to the Observer Key:

BAR06 37	Alexandr R. Baransky, Ukraine	NAG08 16	Yoshimi Nagai, Yamanashi, Japan
BIV	Nicolas Biver, France	NAK01 16	Akimasa Nakamura, Ehime, Japan
BOR	John E. Bortle, NY, U.S.A.	NEV 42	Vitali S. Nevski, Belarus
BOSO1	Jean-Gabriel Bosch, Switzerland	PEA	Andrew R. Pearce, Australia
BOU	Reinder J. Bouma, The Netherlands	POW01 18	Jacek Powichrowski, Poland
CER01 23	Jakub Černý, Praha, Czech Rep.	RAE	Stuart T. Rae, New Zealand
COM 11	Georg Comello, The Netherlands	RAY	Paulo Mansur Raymundo, Brazil
DES01	Jose G. de Souza Aguiar, Brazil	RES	Maciej Reszelski, Poland
DRA02 18	Michal Drahus, Krakow, Poland	ROD03	Juan Rodríguez, Palma, Spain
FUK02 16	Hideo Fukushima, Mitaka, Japan	ROQ	Paul Roques, AZ, U.S.A.
HAL	Alan Hale, U.S.A.	SAD 18	Piotr Sadowski, Poland
HAS02	Werner Hasubick, Germany	SAN09 18	Lukasz Sanocki, Poland
HOR02 23	Kamil Hornoch, Czech Republic	SAR02 32	Krisztián Sárnecky, Hungary
KAD02 16	Ken'ichi Kadota, Saitama, Japan	SC001	James V. Scotti, AZ, U.S.A.
KAM01	Andreas Kammerer, Germany	SEA	David A. J. Seargent, Australia
LEH	Martin Lehky, Czech Republic	SEG 38	Carlos Segarra, Valencia, Spain
LIG	Rolando Ligustri, Latisana, Italy	SHA02 07	Jonathan D. Shanklin, England
LIN04	Mike Linnolt, Makawao, HI, U.S.A.	SHU 42	Sergey E. Shurpakov, Belarus
MAN03	Eric Mandon, France	SUZ02 16	Masayuki Suzuki, Japan
MEY	Maik Meyer, Germany	TSU02 16	Mitsunori Tsumura, Japan
MIH 42	Andrei Mihailuk, Pinsk, Belarus	VAS05 42	Aleksandr Vasilev, Pinsk, Belarus
MIL02	Giannantonio Milani, Italy	YOS02 16	Katsumi Yoshimoto, Japan
MIY01 16	Osamu Miyazaki, Ibaraki, Japan	YOS04 16	Seiichi Yoshida, Ibaraki, Japan
MOR09	Philippe Morel, France	YOS05 16	S. Yoshida and K. Kadota, Japan
NAG02 16	Takashi Nagata, Hyogo, Japan		

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TABULATED DATA

The headings for the tabulated data are as follows: "DATE (UT)" = Date and time to hundredths of a day in Universal Time; "N" = notes [* = correction to observation published in earlier issue of the *ICQ*; an exclamation mark (!) in this same location indicates that the observer has corrected his estimate in some manner for atmospheric extinction (prior to September 1992, this was the standard symbol for noting extinction correction, but following publication of the extinction paper — July 1992 *ICQ* — this symbol is only to be used to denote corrections made using procedures different from that outlined by Green 1992, *ICQ* 14, 55-59, and in Appendix E of the *ICQ Guide to Observing Comets* — and then only for situations where the observed comet is at altitude > 10°); '&' = comet observed at altitude 20° or less with no atmospheric extinction correction applied; '\$' = comet observed at altitude 10° or lower, observations corrected by the observer using procedure of Green (*ibid.*); for a correction applied by the observer using Tables Ia, Ib, or Ic of Green (*ibid.*), the letters 'a', 'w', or 's', respectively, should be used].

"MM" = the method employed for estimating the total (visual) magnitude; see article on page 186 of the Oct. 1996 issue [B = VBM method, M = Morris method, S = VSS or In-Out method, I = in-focus, C = unfiltered CCD, c = same as 'C', but for 'nuclear' magnitudes, V = electronic observations — usually CCD — with Johnson V filter, etc.]. "MAG." = total (visual) magnitude estimate; a colon indicates that the observation is only approximate, due to bad weather conditions, etc.; a left bracket ([]) indicates that the comet was not seen, with an estimated limiting magnitude given (if the comet IS seen, and it is simply estimated to be fainter than a certain magnitude, a "greater-than" sign (>) must be used, not a bracket). "RF" = reference for total magnitude estimates (see pages 98-100 of the October 1992 issue, and Appendix C of the *ICQ Guide to Observing Comets*, for all of the 1- and 2-letter codes). "AP." = aperture in centimeters of the instrument used for the observations, usually given to tenths. "T" = type of instrument used for the observation (R = refractor, L = Newtonian reflector, B = binoculars, C = Cassegrain reflector, A = camera, T = Schmidt-Cassegrain reflector, S = Schmidt-Newtonian reflector, E = naked eye, etc.). "F/" and "PWR" are the focal ratio and power or magnification, respectively, of the instrument used for the observation — given to nearest whole integer (round even); note that for CCD observations, in place of magnification is given the exposure time in seconds (see page 11 of the January 1997 issue).

"COMA" = estimated coma diameter in minutes of arc; an ampersand (&) indicates an approximate estimate; an exclamation mark (!) precedes a coma diameter when the comet was not seen (*i.e.*, was too faint) and where a limiting magnitude estimate is provided based on an "assumed" coma diameter (a default size of 1' or 30" is recommended; cf. *ICQ* 9, 100); a plus mark (+) precedes a coma diameter when a diaphragm was used electronically, thereby specifying the diaphragm size (*i.e.*, the coma is almost always larger than such a specified diaphragm size). "DC" = degree of condensation on a scale where 9 = stellar and 0 = diffuse (preceded by lower- and upper-case letters S and D to indicate the presence of stellar and disklike central condensations; cf. July 1995 issue, p. 90); a slash (/) indicates a value midway between the given number and the next-higher integer. "TAIL" = estimated tail length in degrees, to 0.01 degree if appropriate; again, an ampersand indicates a rough estimate. Lower-case letters between the tail length and the p.a. indicate that the tail was measured in arcmin ("m") or arcsec ("s"), *in which cases the decimal point is shifted one column to the right*. "PA" = estimated measured position angle of the tail to nearest whole integer in degrees (north = 0°, east = 90°). "OBS" = the observer who made the observation (given as a 3-letter, 2-digit code).

A complete list of the Keys to abbreviations used in the *ICQ* is available from the Editor for \$4.00 postpaid (available free of charge via e-mail); these Keys are also now available in the new *Guide to Observing Comets* and via the *ICQ*'s World Wide Web site. *Please note that data in archival form, and thus the data to be sent in machine-readable form, use a format that is different from that of the Tabulated data in the printed pages of the ICQ; see pages 59-61 of the July 1992 issue, p. 10 of the January 1995 issue, and p. 100 of the April 1996 issue for further information [note correction on page 140 of the October 1993 issue]. Further guidelines concerning reporting of data may be found on pages 59-60 of the April 1993 issue, and in the ICQ Guide to Observing Comets.*

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Comet C/1995 01 (Hale-Bopp)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 12 14.81		S	12.9	VN	41	L	4	90	1.3	3			PEA
1999 12 16.80		S	12.9	VN	41	L	4	90	1.1	3			PEA
2000 01 02.63		S	13.0	VN	41	L	4	90	1.3	3/			PEA
2000 01 06.56		S	13.0	HS	25	L	5	75	1.7	2/			RAE
2000 01 08.70		S	13.3	VN	41	L	4	90	0.8	3			PEA
2000 01 25.58		S	13.3	VN	41	L	4	90	0.7	3/			PEA
2000 01 26.57		S	13.3	VN	41	L	4	90	0.7	3			PEA
2000 01 27.43		S	13.2	HS	25	L	5	75	1.6	4			RAE
2000 01 27.60		S	13.3	VN	41	L	4	90	1.1	3			PEA
2000 01 28.42		M	12.9	HS	25	L	5	75	1.8	5			RAE
2000 01 28.59		S	13.3	VN	41	L	4	90	0.9	3/			PEA
2000 01 30.50		S	12.8	HS	25	L	5	75	1.5	5/			RAE
2000 01 31.44		M	12.9	HS	25	L	5	75	1.2	6			RAE
2000 02 01.47		S	13.0	GA	25.4	L	4	114					SEA
2000 02 02.43		M	13.0	HS	25	L	5	75	1.6	4/			RAE
2000 02 02.46		S	13.0	GA	25.4	L	4	71					SEA
2000 02 05.39		M	12.9	HS	25	L	5	75	1.8	4			RAE
2000 02 06.40		S	12.9	HS	25	L	5	75	1.7	3			RAE
2000 02 09.38		S	13.0	HS	25	L	5	75	1.6	3			RAE
2000 02 24.40		S	12.8	HS	25	L	5	75	2.1	3			RAE
2000 02 26.40		S	13.0	HS	25	L	5	75	1.7	3			RAE
2000 02 27.38		S	13.0	HS	25	L	5	75	1.5	2/			RAE
2000 02 29.46		S	12.9	GA	25.4	L	4	71	4	1			SEA
2000 03 01.46		S	13.2	GA	25.4	L	4	114					SEA
2000 03 03.33		S	13.2	HS	25	L	5	75	1.6	2/			RAE
2000 03 04.33		S	13.1	HS	25	L	5	75	1.9	2			RAE
2000 03 06.40		S	13.2	HS	25	L	5	75	1.5	1/			RAE
2000 03 09.40		S	13.3	HS	25	L	5	75	1.3	1			RAE
2000 03 23.33		S	13.2	HS	25	L	5	75	1.9	2			RAE
2000 03 26.36		S	13.3	HS	25	L	5	75	1.5	2			RAE
2000 03 27.36		S	13.3	HS	25	L	5	75	1.6	1/			RAE
2000 04 01.37		S	13.4	HS	25	L	5	75	1.7	2/			RAE
2000 04 03.52		S	13.4	LM	25.4	L	4	71					SEA
2000 04 08.52		M	14.0	HS	25.0	L	6	120	1.3	3			TSU02

Comet C/1997 BA6 (Spacewatch)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 01 14.46		!	S 13.7	NP	41	L	4	183	0.5				HAL
1999 01 16.32		!	S 13.6	NP	41	L	4	183	0.5				HAL
1999 01 23.30		!	S 13.5	NP	41	L	4	183	0.5				HAL

Comet C/1997 BA6 (Spacewatch) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 02 09.29	!	M	13.0	NP	41	L	4	183	0.5				HAL
1999 02 18.32	!	S	13.2	NP	41	L	4	183	0.5				HAL
1999 03 21.20	!	S	13.0:	NP	41	L	4	183	0.5				HAL
1999 04 06.13	!	S	13.0	NP	41	L	4	183	& 1				HAL
1999 04 18.12	!	S	12.7:	NP	41	L	4	183	& 1				HAL
1999 12 14.81	a	S	13.0	VN	41	L	4	200	0.8	2/			PEA
1999 12 16.81	a	S	13.0	VN	41	L	4	200	1.0	2			PEA
2000 01 02.81	a	S	12.5	VN	41	L	4	90	0.7				PEA
2000 01 27.45		S	[12.0	HS	25	L	5	75	! 1				RAE
2000 01 28.41		S	[12.5	HS	25	L	5	75	! 1				RAE
2000 02 02.41		S	12.3	HS	25	L	5	75	1.5	4			RAE
2000 02 05.41		S	12.1	HS	25	L	5	75	1.5	3			RAE
2000 02 09.40	&	S	12.1	HS	25	L	5	75	1.5	3			RAE

Comet C/1998 K2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 02 27.44		C	17.2:	GA	60.0	Y	6	a240	0.65				NAK01

Comet C/1998 M5 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 01 05.08	!	M	10.6	NP	20	L	6	49	2				HAL
1999 01 15.54		M	10.6	NP	41	L	4	72	2				HAL
1999 01 24.52		M	10.1	NP	41	L	4	72	2	5			HAL
1999 02 12.50		M	10.1	NP	41	L	4	72	2				HAL
1999 02 21.50		S	9.5	NP		7.0	B	10	3				HAL
1999 02 27.50		S	9.5	NP		7.0	B	10	3				HAL
1999 03 04.10	!	S	9.5	NP		7.0	B	10	3				HAL
1999 03 15.32		M	9.9	NP	41	L	4	72	4	4/			HAL
1999 03 20.27		M	10.0	NP	41	L	4	72	4				HAL
1999 04 06.15		M	10.1	NP	41	L	4	72	4				HAL
1999 04 17.17		M	10.4	NP	41	L	4	72	4				HAL
1999 05 05.13		M	10.8	NP	41	L	4	72	2				HAL
1999 05 12.19		S	11.2	NP	41	L	4	72	4				HAL
2000 01 02.70		S	[14.0	VN	41	L	4	200	! 0.5				PEA
2000 01 04.80	a	C	15.2	GA	60.0	Y	6	a120	1.05				NAK01
2000 02 10.72	a	C	15.7	GA	60.0	Y	6	a120	0.8				NAK01
2000 02 27.15	!	J	15.3	SC	25.4	T	5	a100	0.31	s3	0.7m	27	ROQ
2000 03 02.59	a	C	15.6	GA	60.0	Y	6	a120	0.9				NAK01
2000 03 25.53		C	15.7	GA	60.0	Y	6	a120	0.8				NAK01

Comet C/1998 P1 (Williams)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 01 11.41		M	9.4:	NP	41	L	4	72	3				HAL
1999 01 14.42		S	9.3	NP		7.0	B	10	6				HAL
1999 01 23.36		S	9.3	NP		7.0	B	10	6				HAL
1999 02 06.17		S	9.6	NP		7.0	B	10	6				HAL
1999 02 10.23		S	9.7	NP		7.0	B	10	5				HAL
1999 02 18.24		S	9.8	NP		7.0	B	10	4				HAL
1999 03 05.10		S	11.4	NP	41	L	4	72	& 3	0/			HAL
1999 03 21.28		S	12.5:	NP	41	L	4	72	& 2	0			HAL

Comet C/1998 T1 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 01 05.10		S	14.1	NP	41	L	4	183	1				HAL
1999 01 11.09		S	14.1	NP	41	L	4	183	1	1			HAL
1999 04 18.47		I	[10 :		20	L	6	110					HAL
1999 04 26.48		I	[11 :		20	L	6	110					HAL
1999 05 14.45		S	[11.5:	AC	20	L	6	110	! 1				HAL
1999 05 15.45	!	S	12.0	AC	41	L	4	72	2				HAL
1999 05 21.45	!	S	12.1	AC	41	L	4	72	2				HAL
1999 06 10.40		M	10.3	AC	41	L	4	72	5	3/			HAL

Comet C/1998 T1 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 06 20.40		M	10.1	AC	41	L	4	72	3	4			HAL
1999 06 25.44		S	9.6	NP	7.0	B		10	4				HAL
1999 07 06.30	!	S	9.8:	NP	41	L	4	72	4				HAL
1999 07 08.24	!	M	10.0	NP	41	L	4	72	3				HAL
1999 07 16.18		I	10.5:		41	L	4	72	4				HAL
2000 02 04.76		C	15.5	TJ	18.0	L	6	a 60	0.45				YOS04
2000 02 10.80	a	C	15.8	GA	60.0	Y	6	a120	1.0				NAK01
2000 02 11.77		C	15.8	TJ	18.0	L	6	a 70	0.45				YOS04
2000 03 13.69	a	C	15.8	GA	60.0	Y	6	a120	0.7				NAK01
2000 04 11.58		C	16.0	TJ	18.0	L	6	a 60	0.4				KAD02
2000 04 24.56		C	16.7	GA	60.0	Y	6	a240	0.85				NAK01

Comet C/1998 U5 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 01 04.07		M	11.1	NP	41	L	4	72	3				HAL
1999 01 12.07		S	11.1:	NP	41	L	4	72	2				HAL

Comet C/1999 A1 (Tilbrook)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 01 14.08	!	M	10.3	NP	41	L	4	72	4.5				HAL
1999 01 18.08	!	M	10.3	NP	41	L	4	72	4				HAL

Comet C/1999 E1 (Li)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 04 10.13		I	13.5:		41	L	4	183					HAL
2000 01 04.75		C	16.2	GA	60.0	Y	6	a240	0.75		1.1m	250	NAK01
2000 03 02.60		C	16.5	GA	60.0	Y	6	a240	0.5		1.1m	225	NAK01
2000 03 13.64		C	16.6	GA	60.0	Y	6	a240	0.45		0.7m	223	NAK01
2000 03 25.69	w	H	15.9	LA	50.0	C	12	a360	0.37	4	1.5m	236	FUK02
2000 03 25.73	w	V	16.6	LA	50.0	C	12	a360	0.37	4	1.5m	236	FUK02
2000 03 30.58		C	16.8	GA	60.0	Y	6	a240	0.45		0.6m	211	NAK01
2000 04 01.52	w	H	15.8	LA	50.0	C	12	a360	0.45	4	0.7m	224	FUK02
2000 04 01.55	w	V	16.5	LA	50.0	C	12	a360	0.45	4	0.7m	224	FUK02

Comet C/1999 F1 (Catalina)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 02 29.77	a	C	17.4	GA	60.0	Y	6	a240	0.3				NAK01
2000 03 13.70	a	C	17.3	GA	60.0	Y	6	a240	0.35			30	NAK01

Comet C/1999 F2 (Dalcanton)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 06 09.25		S	14.3	NP	41	L	4	183	& 0.5				HAL
1999 06 10.24		S	14.3	NP	41	L	4	183	& 0.5				HAL
2000 03 13.78		C	17.8	GA	60.0	Y	6	a240	0.4	1	1.0m	238	NAK01

Comet C/1999 H1 (Lee)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 05 02.13	!	M	8.5:	NP	41	L	4	72	4	4			HAL
1999 05 03.13	!	M	8.1	NP	7.0	B		10	5	5			HAL
1999 05 07.14	!	M	8.2	NP	7.0	B		10	& 5				HAL
1999 05 12.16		S	7.4	SC	7.0	B		10	8				HAL
1999 05 19.15		M	7.3	SC	7.0	B		10	9				HAL
1999 06 01.13		S	6.2:	SC	7.0	B		10	& 6				HAL
1999 06 02.13		S	6.5	SC	7.0	B		10	& 6				HAL
1999 06 04.14		M	6.5	SC	7.0	B		10	8	6/			HAL
1999 06 07.16		M	6.6	SC	7.0	B		10	5	7	20 m	115	HAL
1999 06 12.16		M	6.4	SC	7.0	B		10	3	7	20 m	120	HAL
1999 06 20.15		S	6.8:	SC	7.0	B		10	3	7			HAL
1999 07 31.79		S	6.6	S	15.0	R	5	25	4	6			NAG02

Comet C/1999 H1 (Lee) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 08 11.06		M	7.1	SC	7.0	B		10	3	7			HAL
1999 08 19.46		M	7.5:	SC	7.0	B		10	& 5				HAL
1999 08 23.05		B	7.9	TT	6.7	R	5	23	8	5			SAN09
1999 08 24.04		B	8.6	TT	10	M	10	75	7	4			SAN09
1999 08 24.45		M	8.0:	SC	7.0	B		10	10				HAL
1999 08 26.06		S	8.4:	TT	6.7	R	5	23	& 8				SAN09
1999 09 06.43		S	8.4	NP	7.0	B		10	10				HAL
1999 09 10.96		S	8.6	S	10	M	10	75	6	3			SAN09
1999 09 12.44		S	8.1	NP	7.0	B		10	10				HAL
1999 09 19.43		S	8.4	NP	7.0	B		10	9				HAL
1999 09 30.15		S	9.1	NP	7.0	B		10	8	3			HAL
1999 10 01.78		E	9.2	AA	20	L	5	33	4	3			VAS05
1999 10 02.83		E	9.3	AA	20	L	5	33	4	4			MIH
1999 10 03.17		S	9.1	NP	7.0	B		10	10	3/			HAL
1999 10 06.92		& B	9.0	S	25.7	L	5	120	2	3			MAN03
1999 10 11.15		S	9.1	NP	7.0	B		10	7	2/			HAL
1999 10 29.11		S	10.9	NP	41	L	4	72	3				HAL
1999 11 03.13		S	11.1	AC	41	L	4	72	3				HAL
1999 11 07.84		C	12.6	TT	20.0	L	4	a270	2.0				MIL02
1999 11 12.81		C	12.0	TT	20.0	L	4	a900	1.7				MIL02
1999 12 02.85		S	12.6	HS	35	L	5	166	1.5	1/			HOR02
1999 12 04.76		S	12.2:	AC	25.4	L	5	104	1.7	2			MEY
1999 12 05.76		S	12.8:	HS	25.4	J	6	88	1.4	1			BOU
1999 12 08.76		S	13.1	HS	35	L	5	166	1.7	2			HOR02
2000 01 02.54		S	13.5	VN	41	L	4	90	0.8	2			PEA
2000 01 05.71		B	13.7	HS	42	L	5	162	1	3			LEH
2000 01 05.72		S	13.8	HS	35	L	5	166	1.1	2/			HOR02
2000 01 06.72		B	13.5	HS	42	L	5	162	1.3	3/			LEH
2000 01 06.73		S	13.8	HS	35	L	5	208	1.2	2/			HOR02

Comet C/1999 H3 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 05 09.31		S	14.0	NP	41	L	4	183	0.5				HAL
1999 05 15.31		S	14.0	NP	41	L	4	183	0.5				HAL
1999 06 04.21		S	14.0	NP	41	L	4	183	0.5				HAL
1999 06 12.23		S	13.9	NP	41	L	4	183	0.5				HAL
1999 12 14.10		S	13.6	HS	35	L	5	208	1.1	3			HOR02
1999 12 20.18		S	13.6	HS	35	L	5	208	1.1	3			HOR02
2000 01 01.80		C	15.2	TJ	18.0	L	6	a 60	0.75				YOS05
2000 01 03.80		S	13.6	HS	25.4	T	6	116	0.8	3			YOS04
2000 01 04.79		a C	14.8	GA	60.0	Y	6	a120	1.1				NAK01
2000 01 05.22		S	13.3	VB	30	R	20	185	0.7	3			SHA02
2000 01 06.07		M	13.1	HS	42	L	5	162	1.4	3			LEH
2000 01 06.15		S	13.9	HS	35	L	5	208	1.0	3			HOR02
2000 01 06.21		S	13.3	AC	25.4	L	5	104	0.9	3			MEY
2000 01 09.22		S	13.7:	VB	30	R	20	185	0.7	3			SHA02
2000 01 12.16		S	14.0	HS	35	L	5	208	1.0	2/			HOR02
2000 01 12.19		S	13.1	NP	25	L	5	60	0.8	4			SEG
2000 01 12.20		S	13.5	AC	25.4	L	5	162	1.0	3			MEY
2000 02 05.06		S	13.6	NP	25	L	5	96	0.75	4			SEG
2000 02 06.02		C	14.0	HV	20.3	T	6	a 60	1.0				LIG
2000 02 06.24		S	13.6	HS	44.0	L	5	156	1.3	3			HAS02
2000 02 09.73		C	14.9	TJ	18.0	L	6	a 60	0.5				YOS04
2000 02 17.71		C	14.5	TJ	18.0	L	6	a 60	0.75				YOS04
2000 02 27.90		S	13.5	HS	35	L	5	208	1.1	2/			HOR02
2000 02 29.15		S	13.3	HS	35	L	5	208	1.4	2/			HOR02
2000 02 29.73		C	14.5	GA	60.0	Y	6	a120	1.3				NAK01
2000 03 02.93		S	13.8	HS	35	L	5	208	1.4	2/			HOR02
2000 03 04.89		S	13.6	HS	35	L	5	208	1.4	3			HOR02
2000 03 14.78		C	14.7	GA	60.0	Y	6	a120	1.2				NAK01
2000 03 22.81		B	13.5	HS	42	L	5	162	1.3	3			LEH
2000 03 23.82		B	13.6	HS	42	L	5	162	1.3	3			LEH
2000 03 25.89		B	13.7	HS	42	L	5	162	1.2	3			LEH
2000 04 01.67		C	15.0	TJ	18.0	L	6	a 60	0.6				KAD02

Comet C/1999 H3 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 04 02.95		S	13.3	AC	40.6	L	5	72	1.5	1			RES
2000 04 04.88		S	13.6	AC	40.6	L	5	72	1.3	2			RES
2000 04 06.01		S	13.7	AC	40.6	L	5	72	1.2	1			RES
2000 04 06.88		S	13.7:	AC	40.6	L	5	72	1.0	1			RES
2000 04 07.60		C	15.1	TJ	18.0	L	6	a 60	0.5				KAD02
2000 04 07.85		S	14.1	AC	40.6	L	5	72	0.9	1/			RES
2000 04 08.96		S	14.1	AC	40.6	L	5	72	0.9	2			RES
2000 04 11.60		C	15.2	TJ	18.0	L	6	a 60	0.4				KAD02
2000 04 12.69		C	14.7	GA	60.0	Y	6	a120	1.2				NAK01

Comet C/1999 J2 (Skiff)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 05 18.47		S	[14.2	NP	41	L	4	183	! 0.5				HAL
1999 06 04.19		I	[14.0:		41	L	4	183					HAL
1999 06 06.22		S	[14.2	NP	41	L	4	183	! 0.5				HAL
2000 01 01.19		C	15.7	TI	60.0	D	2		0.25		2.5m	10	SAR02
2000 01 01.85		C	15.9	TJ	18.0	L	6	a 60	0.3				YOS05
2000 01 06.13		B	14.3	HS	42	L	5	162	0.8	4			LEH
2000 01 06.14		S	14.3	HS	35	L	5	208	0.9	2			HOR02
2000 01 12.15		S	14.1	HS	35	L	5	208	1.0	2/			HOR02
2000 02 06.15		S	[13.5	HS	44.5	L	4	146	! 1				SAR02
2000 02 29.16		S	14.2	HS	35	L	5	208	1.1	2/			HOR02
2000 03 06.94		S	14.5:	HS	44.0	L	5	156	0.5	4			HAS02
2000 03 13.77		C	15.7	GA	60.0	Y	6	a120	0.65		1.1m	15	NAK01
2000 03 29.74		C	15.9	TJ	18.0	L	6	a 60	0.4				KAD02
2000 03 30.73		C	15.8	GA	60.0	Y	6	a120	0.45		0.6m	13	NAK01
2000 04 01.69		C	15.9	TJ	18.0	L	6	a 60	0.3				KAD02
2000 04 02.95		S	14.1	AC	40.6	L	5	72	0.5	2			RES
2000 04 04.89		S	14.0	AC	40.6	L	5	72	0.7	3			RES
2000 04 05.47		J	15.1	SC	25.4	T	5	a100	0.52	s3	0.6m	348	ROQ
2000 04 06.01		S	14.0	AC	40.6	L	5	72	0.8	3/			RES
2000 04 06.88		S	14.0:	AC	40.6	L	5	72	0.5	2			RES
2000 04 07.64		C	15.8	TJ	18.0	L	6	a 60	0.35				KAD02
2000 04 07.87		S	14.0	AC	40.6	L	5	72	0.7	3			RES
2000 04 08.72		C	15.8	TJ	18.0	L	6	a 60	0.35				KAD02
2000 04 08.96		S	14.2	AC	40.6	L	5	72	0.5	3			RES
2000 04 11.63		C	15.8	TJ	18.0	L	6	a 60	0.4				KAD02
2000 04 12.71		C	15.7	GA	60.0	Y	6	a120	0.45		0.9m	14	NAK01
2000 04 24.65		C	15.6	GA	60.0	Y	6	a120	0.55		0.8m	17	NAK01

Comet C/1999 J3 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 05 15.28		S	[14.2	NP	41	L	4	183	! 0.5				HAL
1999 06 05.20		I	[14.0:		41	L	4	183					HAL
1999 07 12.17		S	12.7	NP	41	L	4	72	2	1/			HAL
1999 07 14.25		! S	12.4	NP	41	L	4	72	2				HAL
1999 07 16.17		S	11.9	NP	41	L	4	72	2				HAL
1999 09 06.47		S	9.8	NP	7.0	B		10	3				HAL
1999 09 12.45		S	9.3	NP	7.0	B		10	3				HAL
1999 09 19.45		S	8.6	NP	7.0	B		10	4				HAL
1999 10 04.45		M	8.1	NP	7.0	B		10	7	5			HAL
1999 10 09.47		M	8.0	SC	7.0	B		10	7	6			HAL
1999 10 19.47		M	8.3	NP	7.0	B		10	7	4/			HAL
1999 12 14.56		S	[11.5	VN	41	L	4	200	! 1.5				PEA
2000 01 02.58		S	13.1	VN	41	L	4	90	1.9	2			PEA

Comet C/1999 K1 (SOHO)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 05 20.93		I	[-2 :		30	T	10	117					HAL
1999 05 21.05		I	[-2 :		20	L	6	49					HAL

Comet C/1999 K2 (Ferris)

DATE (UT)	N MM MAG.	RF	AP.	T F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 06 11.35	I[14.0:		41	L 4	183					HAL

Comet C/1999 K3 (LINEAR)

DATE (UT)	N MM MAG.	RF	AP.	T F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 09 30.09	S[14.0	NP	41	L 4	183	! 0.5				HAL

Comet C/1999 K5 (LINEAR)

DATE (UT)	N MM MAG.	RF	AP.	T F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 06 06.31	I[13.5:		41	L 4	183					HAL
1999 06 11.31	I[14.0:		41	L 4	183					HAL
1999 08 31.17	I[14 :		41	L 4	183					HAL
1999 09 05.18	I[14.0:		41	L 4	183					HAL
1999 09 12.17	I[13.5:		41	L 4	183					HAL
1999 09 30.13	I[13.5:		41	L 4	183					HAL
1999 10 07.12	I[13.5:		41	L 4	183					HAL
1999 10 28.07	I[13.5:		41	L 4	183					HAL

Comet C/1999 K6 (LINEAR)

DATE (UT)	N MM MAG.	RF	AP.	T F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 05 26.44	I[14.0:		41	L 4	183					HAL
1999 06 06.29	I[14.0:		41	L 4	183					HAL
1999 06 11.30	I[13.5:		41	L 4	183					HAL
1999 06 12.31	S[14.3	NP	41	L 4	183	! 0.5				HAL
1999 07 08.29	I[14 :		41	L 4	183					HAL
1999 07 12.22	I[14.0:		41	L 4	183					HAL

Comet C/1999 K8 (LINEAR)

DATE (UT)	N MM MAG.	RF	AP.	T F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 06 11.37	I[14.0:		41	L 4	183					HAL
1999 07 13.41	I[14.0:		41	L 4	183					HAL
1999 08 19.44	I[13.5:		41	L 4	183					HAL
1999 09 01.19	I[14 :		41	L 4	183					HAL
1999 09 04.25	S[14.2	NP	41	L 4	183	! 0.5				HAL
1999 09 09.24	I[14.0:		41	L 4	183					HAL
1999 09 19.35	S[14.2	NP	41	L 4	183	! 0.5				HAL
1999 10 01.14	I[13.5:		41	L 4	183					HAL
1999 10 04.13	S[14.2	NP	41	L 4	183	! 0.5				HAL
1999 10 12.21	S 14.2	NP	41	L 4	183	0.5				HAL
1999 10 13.34	S 14.2	NP	41	L 4	183	0.5				HAL
1999 10 29.10	S 14.2	NP	41	L 4	183	0.5				HAL
1999 11 05.15	S 14.2	NP	41	L 4	183	0.5				HAL
1999 12 02.86	S 13.6	HS	35	L 5	208	1.1	3			HORO2
1999 12 06.08	S 13.9	NP	41	L 4	183	0.5				HAL
1999 12 08.74	S 13.5	HS	35	L 5	208	1.4	3			HORO2
1999 12 28.10	S 14.0	NP	41	L 4	183	0.5				HAL
1999 12 31.71	c 16.3	TI	60.0	D 2		0.58		2.5m	315	SARO2
2000 01 05.72	B 13.7	HS	42	L 5	162	1.2	3			LEH
2000 01 05.76	S 14.1	HS	35	L 5	208	1.0	2			HORO2
2000 01 06.73	B 13.7	HS	42	L 5	162	1.1	3			LEH
2000 01 06.73	S 13.9	HS	35	L 5	208	1.0	2/			HORO2
2000 01 08.74	S 13.8	HS	44.0	L 5	226	0.4	3			HASO2
2000 01 23.74	B 13.9	HS	42	L 5	162	1.0	3/			LEH
2000 01 25.72	S 13.7	HS	35	L 5	208	0.9	2			HORO2
2000 01 30.73	B 13.9	HS	42	L 5	162	1	3/			LEH
2000 01 30.74	S 13.8	HS	35	L 5	208	1.0	2/			HORO2
2000 02 01.73	S 13.8	HS	35	L 5	208	1.0	2/			HORO2

Comet C/1999 L3 (LINEAR)

DATE (UT)	N MM MAG.	RF	AP.	T F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 11 17.50	S 13.2	NP	41	L 4	183	1				HAL

Comet C/1999 L3 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 11 21.52		S	13.1	NP	41	L	4	183	1				HAL
1999 12 05.51		S	12.8	NP	41	L	4	183	1				HAL
1999 12 11.19		S	12.0	AC	25.4	L	5	104	1.6	3/			MEY
1999 12 14.12		S	13.0	HS	35	L	5	208	1.0	3			HOR02
1999 12 18.48		M	12.5	NP	41	L	4	72	1.5				HAL
2000 01 01.16		C	13.4	TI	60.0	D	2		0.75		4 m	295	SAR02
2000 01 01.77		C	12.9	TJ	18.0	L	6	a 60	1.0		2.5m	302	YOS05
2000 01 01.79		S	12.6	HS	25.4	T	6	116	1.5	4			YOS04
2000 01 02.78		S	12.8	VN	41	L	4	90	1.5	6			PEA
2000 01 03.78		S	12.6	HS	25.4	T	6	116	2.4	4			YOS04
2000 01 03.81		S	12.9	VN	41	L	4	90	1.3	4			PEA
2000 01 04.76		C	12.7	GA	60.0	Y	6	a120	1.8		2.6m	290	NAK01
2000 01 04.79		S	12.6	HS	31.7	L	6	63	1.4	3			MIY01
2000 01 05.20		S	13.3	VB	30	R	20	185	0.8	3			SHAO2
2000 01 06.03		M	12.1	TI	42	L	5	81	2.4	3/			LEH
2000 01 06.18		S	12.2	AC	25.4	L	5	65	2.2	3/			MEY
2000 01 06.19		S	12.6	HS	35	L	5	208	2.0	2/			HOR02
2000 01 06.52		S	13.0	HS	25	L	5	75	1	4			RAE
2000 01 07.82		S	12.8	VN	41	L	4	90	1.7	4			PEA
2000 01 08.80		C	12.9	TJ	18.0	L	6	a 40	1.6		3.4m	302	YOS04
2000 01 09.24		S	12.7	VB	30	R	20	105	0.7	3			SHAO2
2000 01 10.17		S	12.3	VB	20	T	10	75	2.0	2			SHAO2
2000 01 10.80		S	12.0	HS	31.7	L	6	63	1.3	3/			MIY01
2000 01 11.67		S	11.9	GA	25.4	L	4	71					SEA
2000 01 12.16		S	12.2	AC	25.4	L	5	65	3.0	4			MEY
2000 01 12.17		S	12.4	NP	25	L	5	60	1	4			SEG
2000 01 12.18		M	12.2	HS	35	L	5	92	2.0	3/			HOR02
2000 01 13.16		S	11.8	AC	25.4	L	5	65	3.3	4			MEY
2000 01 15.74		C	12.9	TJ	18.0	L	6	a 40	0.75		2.5m	300	YOS04
2000 01 17.07		S	12.8	VB	30	R	20	185	0.8	3			SHAO2
2000 01 17.82		S	12.6	VN	41	L	4	90	1.6	4			PEA
2000 01 20.63	w	H	13.5	LA	50.0	C	12	a180	3.1	4	> 6.0m	144	FUK02
2000 01 20.66	w	V	11.2	LA	50.0	C	12	a180	3.1	4	> 6.0m	144	FUK02
2000 01 25.86		C	11.5	HV	20.3	T	6	a 60	3.0		0.10	135	LIG
2000 01 25.87		M	11.0	TT	35	L	5	92	2.0	3/			HOR02
2000 01 26.80		S	12.3	HS	44.0	L	5	156	1.2	3			HAS02
2000 01 27.60	w	H	11.1	LA	50.0	C	12	a180	3.1	4	> 7.4m	131	FUK02
2000 01 27.65	w	V	12.0	LA	50.0	C	12	a180	3.1	4	> 7.4m	131	FUK02
2000 01 28.45		M	12.1	VN	25	L	5	75	1.5	6			RAE
2000 01 28.59	w	H	10.8	LA	50.0	C	12	a180	3.0	4	> 9.0m	129	FUK02
2000 01 28.60	w	V	11.7	LA	50.0	C	12	a180	3.0	4	> 9.0m	129	FUK02
2000 01 28.63		C	11.3	GA	60.0	Y	6	a120	3.4		> 6.8m	128	NAK01
2000 01 28.68		S	10.1	TJ	25.4	T	6	62	4.5	5			YOS04
2000 01 28.74		S	12.2	VN	41	L	4	90	1.4	5			PEA
2000 01 30.51		M	11.9	VN	25	L	5	75	1.2	5			RAE
2000 01 30.80		S	10.6	TT	35	L	5	92	2.8	3			HOR02
2000 01 30.95	x	S	11.3	TT	35	M	10	144	1.6	S6			DRA02
2000 01 31.00		S	11.7	VB	30	R	20	105	0.9	4			SHAO2
2000 01 31.04		S	11.9	VB	30	R	20	105	0.9	4			SHAO2
2000 02 01.01	x	M	11.7	HS	35	M	10	90	1.4	S7			DRA02
2000 02 01.48		S	12.0	GA	25.4	L	4	71					SEA
2000 02 01.80		M	10.7	TT	35	L	5	92	3.3	3/			HOR02
2000 02 01.87	x	M	11.6	HS	35	M	10	90	1.2	S7			DRA02
2000 02 02.45		M	11.0	HS	25	L	5	75	2.4	5			RAE
2000 02 02.49	x	S	10.8	TJ	32.0	L	5	58	2.8	4			NAG08
2000 02 02.66		S	9.9	HS	25.4	T	6	62	3.1	6/			YOS04
2000 02 02.85		M	11.3	TJ	25.4	J	6	72	2.0	5			BOU
2000 02 04.00	x	S	11.0	HS	35	M	10	90	2.3	s4	2.7m	137	DRA02
2000 02 04.73		C	12.0	TJ	18.0	L	6	a 20	1.7		11 m	121	YOS04
2000 02 04.77		S	11.7	HS	44.0	L	5	156	1.4	4			HAS02
2000 02 04.95		S	12.0	NP	25	L	5	30	2	5			SEG
2000 02 05.44		M	11.0	HS	25	L	5	75	1.7	5			RAE
2000 02 05.47		S	10.7	HS	25.4	T	6	62	2.0	4			YOS04
2000 02 05.51		C	12.0	TJ	18.0	L	6	a 30	1.0		5.1m	129	YOS04
2000 02 05.78		M	11.2	TI	42	L	5	81	2.7	3			LEH

Comet C/1999 L3 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 02 05.89		C	12.1	HV	20.3	T	6	a 30	1.5		0.10	130	LIG
2000 02 05.89		M	11.6	NP	30	L	5	60	1	3			NEV
2000 02 06.00		S	10.7	TT	7.6	L	9	35	4				CER01
2000 02 06.06		M	12.0	HS	44.5	L	4	146	1.2	5/	0.1	155	SAR02
2000 02 06.38		S	11.0	TJ	25.6	L	5	42	2.5	7	0.07	130	BIV
2000 02 06.82	x	S	11.2	TT	35	M	10	144	1.7	3			DRA02
2000 02 06.94		S	10.4	TT	7.6	L	9	35	3				CER01
2000 02 07.81		S	10.8	TT	13	L	8	69	2.7	3			HOR02
2000 02 07.83		S	10.7	TT	7.6	L	9	35	2				CER01
2000 02 08.04	x	S	11.6	TT	35	M	10	90	1.5	3	2.4m	122	DRA02
2000 02 08.85		M	11.6	TJ	25.4	J	6	72	1.9	4			BOU
2000 02 09.44		S	11.6	HS	25	L	5	75	1.5	4			RAE
2000 02 09.57		S	10.4	TJ	32.0	L	5	91	2	6			NAG08
2000 02 09.68		C	12.5	TJ	18.0	L	6	a 30	0.65		4.9m	112	YOS04
2000 02 09.76		M	10.9	TT	35	L	5	92	3	3/			HOR02
2000 02 10.10		M	11.8	TI	25.4	T	10	63	2	4			RAY
2000 02 10.74		S	11.1	TT	35	L	5	92	2.8	3			HOR02
2000 02 10.77		M	10.9	TI	10	B	4	25	3	3			LEH
2000 02 10.82		C	12.7	HV	20.3	T	6	a 60	1.5		0.10	120	LIG
2000 02 10.89		C	12.6	HS	20.0	L	4	a120	1.5		0.17	114	MIL02
2000 02 10.90		S	10.8	TI	7.6	L	9	35	2				CER01
2000 02 10.91	x	S	11.1	HS	35	M	10	144	1.6	3			DRA02
2000 02 11.63		S	11.0	HS	25.4	T	6	62	2.3	4			YOS04
2000 02 11.73		C	12.8	TJ	18.0	L	6	a 40	0.6		4.2m	114	YOS04
2000 02 11.96		S	11.3	TI	7.6	L	9	35	2				CER01
2000 02 11.98		S	11.3	HS	30.5	T	10	115	1.7	1			KAM01
2000 02 12.52		C	13.4	HS	18.0	L	6	a 40	0.5		1.0m	118	YOS04
2000 02 17.69		C	13.8	TJ	18.0	L	6	a 40	0.4				YOS04
2000 02 21.78		M	11.5	TI	42	L	5	81	2.5	3			LEH
2000 02 22.23		S	12.7	TK	20	L	4	40	1.5	2			LIN04
2000 02 22.72		S	11.8	HS	20	L	5	70	2	2			BAR06
2000 02 22.80		S	12.3	AC	25.4	J	6	88	1.5	2/			BOU
2000 02 22.86		C	13.9	TT	20.0	L	4	a300	0.6				MIL02
2000 02 23.27		S	12.8	TK	20	L	4	40	1.5	3			LIN04
2000 02 23.74		S	11.7	HS	20	L	5	70	2	3			BAR06
2000 02 23.78	w	S	11.8	PA	25	L	4	64	0.9	3			SHU
2000 02 23.79		C	13.7	HV	20.3	T	6	a 60	0.6		0.03	100	LIG
2000 02 24.76		S	12.0	HS	20	L	5	70	1.8	2			BAR06
2000 02 25.29		S	13.0	HS	20	L	4	80	1.2	3			LIN04
2000 02 25.85		S	12.5	AC	25.4	J	6	100	1.4	2/			BOU
2000 02 27.51		C	14.6	GA	60.0	Y	6	a120	0.85		2.3m	99	NAK01
2000 02 27.76		B	13.2	HS	42	L	5	162	1.5	4			LEH
2000 02 27.76		S	12.4	HS	20	L	5	70	1.5	2			BAR06
2000 02 27.78		S	12.7	HS	35	L	5	92	1.9	3/			HOR02
2000 02 27.80		S	12.5	HS	44.0	L	5	156	0.8	4			HAS02
2000 02 27.87	x	S	12.9	HS	25	L	7	100	0.9	s4/			DRA02
2000 02 28.79		B	13.2	HS	42	L	5	162	1.5	4			LEH
2000 02 28.82		S	12.7	AC	25.4	J	6	100	1.3	2			BOU
2000 03 01.94		S	12.6	AC	30.5	L	5	117	1.5	3			COM
2000 03 02.76		B	13.0	HS	42	L	5	162	1.6	4			LEH
2000 03 02.90		S	12.8	HS	35	L	5	92	1.5	3			HOR02
2000 03 04.85		C	14.6	HV	20.3	T	6	a 60	1.0				LIG
2000 03 04.88		S	13.0	HS	35	L	5	92	1.5	3			HOR02
2000 03 06.78		S	13.3	HS	44.0	L	5	156	0.9	3			HAS02
2000 03 08.52	a	H	14.3	LA	50.0	C	12	a300	0.44	4	2.9m	93	FUK02
2000 03 08.55	a	V	15.4	LA	50.0	C	12	a300	0.44	4	2.9m	93	FUK02
2000 03 09.55		C	14.8	GA	60.0	Y	6	a120	0.8		2.2m	97	NAK01
2000 03 20.47	w	H	14.8	LA	50.0	C	12	a300	0.41	3	0.9m	93	FUK02
2000 03 20.49	w	V	15.6	LA	50.0	C	12	a300	0.41	3	0.9m	93	FUK02
2000 03 22.79		B	13.5	HS	42	L	5	162	1.2	3			LEH
2000 03 23.79		B	13.5	HS	42	L	5	162	1.2	3			LEH
2000 03 25.87		B	13.5	HS	42	L	5	162	1.1	3			LEH
2000 03 30.49		C	16.1	GA	60.0	Y	6	a120	0.45				NAK01
2000 04 02.83		S	13.1	AC	40.6	L	5	72	1.5	3			RES
2000 04 04.82		S	13.3	AC	40.6	L	5	72	1.7	2/			RES

Comet C/1999 L3 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 04 06.85		S	13.5	AC	40.6	L	5	72	1.2	2			RES
2000 04 07.84		C	15.8	UO	20.0	T	5	a300	0.15				BOS01
2000 04 07.84		S	14.0	AC	40.6	L	5	72	1.0	2			RES

Comet C/1999 N2 (Lynn)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 07 22.15		S	8.0:	SC	20	L	6	49	4				HAL
1999 07 24.15		S	7.6	SC	7.0	B		10	4				HAL
1999 07 31.15		M	7.5	SC	7.0	B		10	5				HAL
1999 08 19.13		M	8.1:	NP	41	L	4	72	4				HAL
1999 09 03.83	x	S	9.9	TT	11.0	L	7	54	& 2	4/			SAD
1999 09 03.83	x	S	9.9	TT	11.0	L	7	54	& 2	4/			SAD
1999 09 06.14	!	S	9.0:	NP	20	L	6	49	4				HAL
1999 09 11.80	x	S	10.2:	S	11.0	L	7	54	0.8	4			SAD
1999 09 12.79	x	S	10.0:	S	11.0	L	7	54	& 1	2/			SAD
2000 01 05.25		S	13.6:	VB	33	L	5	150	0.5	2			SHA02
2000 01 05.77		B	14.4	HS	42	L	5	162	0.8	4			LEH
2000 01 06.15		B	14.3	HS	42	L	5	162	0.8	4			LEH
2000 01 06.19			[14.4	HS	35	L	5	208	! 0.8				HOR02
2000 01 06.79		B	14.2	HS	42	L	5	162	0.7	4			LEH
2000 01 09.27		S	13.5:	VB	33	L	5	150	0.6	3			SHA02

Comet C/1999 N4 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 03 13.80		C	17.2	GA	60.0	Y	6	a240	0.4				NAK01
2000 03 14.84		C	17.1	GA	60.0	Y	6	a240	0.4				NAK01

Comet C/1999 S2 (McNaught-Watson)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 02.61		S	[14.0	VN	41	L	4	200	! 0.5				PEA

Comet C/1999 S3 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 09 28.10		S	13.1	NP	41	L	4	183	1				HAL
1999 10 03.21		M	13.0	NP	41	L	4	183	1	5/			HAL
1999 10 11.17		M	13.1	NP	41	L	4	183	0.5	6/			HAL
1999 10 12.87	x	S	12.9	HS	35	M	10	600	0.3	s2			DRA02
1999 10 31.15		M	12.5	NP	41	L	4	72	0.5	8			HAL
1999 11 05.20		M	12.7	NP	41	L	4	72	0.5	6			HAL
1999 11 15.25		M	12.7	NP	41	L	4	183	1				HAL
1999 11 27.76	x	S	12.3	HS	25	L	7	73	1.1	s3/			DRA02
1999 11 28.79	x	S	12.6	HS	35	M	10	288	0.6	s4			DRA02
1999 12 02.82		M	12.4	HS	35	L	5	92	1.4	5			HOR02
1999 12 05.14		M	13.5	NP	41	L	4	183	0.5				HAL
1999 12 05.77		S	12.6	AC	25.4	J	6	100	1.0	4			BOU
1999 12 08.78		M	12.2	HS	35	L	5	166	1.2	4/			HOR02
1999 12 09.86		M	12.2	HS	35	L	5	166	1.0	4/			HOR02
1999 12 13.88		S	12.9	AC	25.4	L	5	104	1.6	2/			MEY
1999 12 17.72		S	12.3	HS	35	L	5	208	0.8	3/			HOR02
1999 12 31.70		c	16.0	TI	60.0	D	2		0.62		4.5m	50	SAR02
2000 01 04.82	x	C	13.7	HS	20.3	T	6	a120	1.0				LIG
2000 01 05.73		B	13.4	HS	42	L	5	162	1.3	4			LEH
2000 01 05.77		S	13.2	HS	35	L	5	208	0.9	3			HOR02
2000 01 05.78		S	13.2	AC	25.4	L	5	104	1.2	3			MEY
2000 01 06.75		S	13.3	HS	35	L	5	208	0.8	3			HOR02
2000 01 06.77		B	13.5	HS	42	L	5	162	1.3	3/			LEH
2000 01 11.77		S	13.2	HS	35	L	5	208	0.9	3			HOR02
2000 01 23.72		B	13.6	HS	42	L	5	162	1.1	3			LEH
2000 01 25.73		S	13.8	HS	35	L	5	208	0.7	3/			HOR02
2000 01 26.76		S	13.5	HS	44.0	L	5	156	0.3	3			HAS02
2000 01 30.72		B	13.3	HS	42	L	5	162	1.3	3			LEH

Comet C/1999 S3 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 30.73			S 13.7	HS	35	L	5	208	1.0	3/			HOR02
2000 02 01.74			S 13.6	HS	35	L	5	208	0.9	3			HOR02
2000 02 02.81	a		S 13.8	GA	25.4	J	6	150	0.6	2			BOU
2000 02 09.75			S 13.6	HS	35	L	5	208	0.8	3			HOR02
2000 02 10.73			S 13.6	HS	35	L	5	208	0.9	3			HOR02
2000 02 11.85			C 16.7	TJ	18.0	L	6	a 60	0.3				YOS04
2000 02 27.76			S 13.7	HS	35	L	5	166	0.8	3/			HOR02
2000 02 29.17			S 13.8	HS	35	L	5	208	0.8	3			HOR02

Comet C/1999 S4 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 10 02.27			S[14.0	NP	41	L	4	183	! 0.5				HAL
1999 10 07.33			S[14.2	NP	41	L	4	183	! 0.5				HAL
1999 10 15.27			I[14.0:		41	L	4	183					HAL
1999 10 31.28			I[13.5:		41	L	4	183					HAL
1999 11 01.24			I[14.0:		41	L	4	183					HAL
1999 11 02.32			S 14.1	NP	41	L	4	183	0.7				HAL
1999 11 03.25			S 14.0	NP	41	L	4	183	0.7				HAL
1999 11 10.26			S 14.0	NP	41	L	4	183	1				HAL
1999 11 17.45			S 13.8	NP	41	L	4	183	1				HAL
1999 11 27.95	x		C 14.8	TT	20.0	L	4	a200	0.6				MIL02
1999 11 28.21			S 13.6	NP	41	L	4	183	1				HAL
1999 12 02.84			S 14.0	HS	35	L	5	208	0.9	3			HOR02
1999 12 04.23			S 13.7	NP	41	L	4	183	1				HAL
1999 12 07.58	w		H 14.4	LA	50.0	C	12	a120	0.54	5	1.1m	109	FUK02
1999 12 07.99			C 15.0	TT	20.0	L	4	a200	0.5				MIL02
1999 12 08.81			S 14.1	HS	35	L	5	208	0.9	3			HOR02
1999 12 09.49	w		H 14.3	LA	50.0	C	12	a300	0.54	5	1.3m	107	FUK02
1999 12 09.55	w		V 15.2	LA	50.0	C	12	a300	0.54	5	1.3m	107	FUK02
1999 12 09.88			S 14.0	HS	35	L	5	208	1.0	2			HOR02
1999 12 11.46	w		H 14.4	LA	50.0	C	12	a180	0.51	5	1.4m	106	FUK02
1999 12 11.48	w		V 15.2	LA	50.0	C	12	a180	0.51	5	1.4m	106	FUK02
1999 12 12.35			S 13.7	NP	41	L	4	183	1				HAL
1999 12 13.48	w		H 14.3	LA	50.0	C	12	a180	0.52	5	1.2m	95	FUK02
1999 12 13.51	w		V 15.2	LA	50.0	C	12	a180	0.52	5	1.2m	95	FUK02
1999 12 14.09			S 13.9	HS	35	L	5	208	1.0	2/			HOR02
1999 12 16.45	w		H 14.4	LA	50.0	C	12	a300	0.49	5	1.2m	95	FUK02
1999 12 16.48	w		V 15.2	LA	50.0	C	12	a300	0.49	5	1.2m	95	FUK02
1999 12 26.46	w		H 14.4	LA	50.0	C	12	a300	0.54	5	1.1m	83	FUK02
1999 12 26.49	w		V 15.3	LA	50.0	C	12	a300	0.54	5	1.1m	83	FUK02
1999 12 27.12			S 13.3	NP	41	L	4	183	1				HAL
1999 12 27.54	w		H 14.7	LA	50.0	C	12	a300	0.51	5	1.5m	87	FUK02
1999 12 28.18			S 13.4	NP	41	L	4	183	1				HAL
1999 12 30.42	w		H 14.3	LA	50.0	C	12	a360	0.50	5	1.9m	87	FUK02
1999 12 30.44	w		V 15.4	LA	50.0	C	12	a300	0.50	5	1.9m	87	FUK02
1999 12 30.84			S 13.7	HS	35	L	5	208	1.0	2/			HOR02
1999 12 31.81			C 15.4	TI	60.0	D	2		0.37		1.7m	85	SAR02
2000 01 02.62			S[14.0	VN	41	L	4	200	! 0.5				PEA
2000 01 02.89	x		C 14.7	TT	20.0	L	4	a300	0.5				MIL02
2000 01 03.51			C 15.0	GA	60.0	Y	6	a120	0.7		1.1m	81	NAK01
2000 01 03.57			C 14.7	TJ	18.0	L	6	a 60	0.45		0.7m	67	YOS05
2000 01 04.81			S 14.5:	VB	30	R	20	185	0.5	2			SHA02
2000 01 04.83	x		C 14.5	HV	20.3	T	6	a120	0.8				LIG
2000 01 05.78			S 13.6	HS	35	L	5	208	1.3	2			HOR02
2000 01 05.81			B 13.1	HS	42	L	5	162	1.5	3/			LEH
2000 01 05.83			S 13.3	NP	25	L	5	133	1	4			SEG
2000 01 06.77			S 13.5	HS	35	L	5	208	1.2	2/			HOR02
2000 01 06.82			B 13.4	HS	42	L	5	162	1.3	4			LEH
2000 01 08.45			C 15.1	TJ	18.0	L	6	a 60	0.55				YOS04
2000 01 08.75			S 14.6	HS	44.0	L	5	156	0.2	4			HAS02
2000 01 08.86			S[14.3	VB	30	R	20	300					SHA02
2000 01 08.90			B 13.1	HS	42	L	5	162	1.3	4			LEH
2000 01 11.45	w		H 14.6	LA	50.0	C	12	a360	0.45	5	1.2m	78	FUK02
2000 01 11.49	w		V 15.4	LA	50.0	C	12	a360	0.45	5	1.2m	78	FUK02

Comet C/1999 S4 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 11.74			C 14.7	HV	20.3	T	6	a120	1.0		0.02	80	LIG
2000 01 11.83			S 13.6:	AC	25.4	L	5	162	0.9	2/			MEY
2000 01 11.86			S 13.6	HS	35	L	5	208	1.0	2/			HOR02
2000 01 16.84			C 15.0	TT	20.0	L	4	a270	0.5				MIL02
2000 01 20.52	w	H	14.6	LA	50.0	C	12	a360	0.45	5	3.0m	76	FUK02
2000 01 20.56	w	V	15.5	LA	50.0	C	12	a360	0.45	5	3.0m	76	FUK02
2000 01 23.76			C 14.6	HV	20.3	T	6	a120	1.0		0.02	70	LIG
2000 01 23.77			B 13.4	HS	42	L	5	162	1.2	3			LEH
2000 01 24.75			B 13.4	HS	42	L	5	162	1.1	3			LEH
2000 01 24.79			S[13.8	VB	30	R	20	185					SHA02
2000 01 25.77			S 13.6	HS	35	L	5	208	1.2	2/			HOR02
2000 01 26.76			S 14.4	HS	44.0	L	5	156	0.4	4			HAS02
2000 01 27.75			C 14.7	HV	20.3	T	6	a120	1.0		0.02	80	LIG
2000 01 28.42			C 15.0	GA	60.0	Y	6	a120	0.7		1.9m	78	NAK01
2000 01 28.46	w	H	14.3	LA	50.0	C	12	a360	0.45	5	3.2m	74	FUK02
2000 01 28.49	w	V	15.2	LA	50.0	C	12	a360	0.45	5	3.2m	74	FUK02
2000 01 28.86			S 13.4	HS	35	L	5	208	1.1	2/			HOR02
2000 01 30.76			B 13.5	HS	42	L	5	162	1.3	4			LEH
2000 02 01.77			S 13.4	HS	35	L	5	208	1.3	2/			HOR02
2000 02 02.80			S 13.5	GA	25.4	J	6	100	1.2	3			BOU
2000 02 05.39			C 14.5	TJ	18.0	L	6	a 60	0.55				YOS04
2000 02 05.74			B 13.1	HS	42	L	5	162	1.4	3/			LEH
2000 02 07.46			C 15.1	GA	20.3	T	9	a 90	0.5		0.7m	72	SUZ02
2000 02 09.77			S 13.4	HS	35	L	5	208	1.4	2/			HOR02
2000 02 10.42	w	H	14.2	LA	50.0	C	12	a360	0.55	5	3.0m	72	FUK02
2000 02 10.46	w	V	15.4	LA	50.0	C	12	a360	0.55	5	3.0m	72	FUK02
2000 02 10.75			S 13.4	HS	35	L	5	208	1.3	2/			HOR02
2000 02 10.77			C 14.5	HV	20.3	T	6	a120	1.0				LIG
2000 02 12.43			C 14.6	TJ	18.0	L	6	a 60	0.3		0.7m	49	YOS04
2000 02 12.43	w	H	14.8	LA	50.0	C	12	a360	0.43	5	2.6m	72	FUK02
2000 02 12.48	w	V	16.0	LA	50.0	C	12	a360	0.43	5	2.6m	72	FUK02
2000 02 19.80			C 15.2	UO	41	D	2	a240	0.6	D6	1.4m	72	ROD03
2000 02 21.75			B 13.2	HS	42	L	5	162	1.4	3			LEH
2000 02 22.42	w	V	14.0	LA	50.0	C	12	a300	0.49	5	2.4m	68	FUK02
2000 02 22.44	w	H	12.8	LA	50.0	C	12	a300	0.49	5	2.4m	68	FUK02
2000 02 23.25			S 13.5	HS	20	L	4	40	1.0	3			LIN04
2000 02 23.44			C 15.1	GA	20.3	T	9	a 90	0.4		0.6m	76	SUZ02
2000 02 23.77			C 14.2	HV	20.3	T	6	a 60	1.0				LIG
2000 02 23.80			C 14.8	UO	41	D	2	a240	0.9	D6	1.7m	75	ROD03
2000 02 25.41	w	V	14.9	LA	50.0	C	12	a300	0.49	5	3.0m	69	FUK02
2000 02 25.44	w	H	14.4	LA	50.0	C	12	a300	0.49	5	3.0m	69	FUK02
2000 02 25.80			C 14.6	UO	41	D	2	a300	0.9	D6	1.8m	75	ROD03
2000 02 25.81			S 13.1	GA	25.4	J	6	100	1.0	2/			BOU
2000 02 27.25			S 13.5	HS	20	L	4	70	1.0	3			LIN04
2000 02 27.45			C 14.5:	GA	60.0	Y	6	a120	0.8		1.9m	71	NAK01
2000 02 27.74			B 13.3	HS	42	L	5	162	1.4	3			LEH
2000 02 27.77			S 13.5	HS	35	L	5	166	1.5	2/			HOR02
2000 02 27.80			C 14.5	UO	41	D	2	a240	0.7	D6	2.0m	70	ROD03
2000 02 28.74			B 13.3	HS	42	L	5	162	1.3	3			LEH
2000 02 28.80			S 12.9	GA	25.4	J	6	100	1.0	2/			BOU
2000 02 29.24			S 13.4	HS	20	L	4	70	1.0	3			LIN04
2000 02 29.43			C 14.7	GA	60.0	Y	6	a120	0.65		1.7m	73	NAK01
2000 03 01.41	w	V	15.1	LA	50.0	C	12	a300	0.50	4	2.6m	70	FUK02
2000 03 01.44	w	H	14.2	LA	50.0	C	12	a300	0.50	4	2.6m	70	FUK02
2000 03 02.75			B 13.3	HS	42	L	5	162	1.5	4			LEH
2000 03 03.25			S 13.4	HS	20	L	4	70	1.0	3			LIN04
2000 03 04.83			C 13.8	HV	20.3	T	6	a 60	1.0				LIG
2000 03 05.27			S 13.5	HS	20	L	4	70	1.0	4			LIN04
2000 03 05.77			S 13.2	HS	35	L	5	166	1.4	2/			HOR02
2000 03 06.78			S 13.5	HS	44.0	L	5	226	0.5	4			HAS02
2000 03 09.43	a	C	14.6	GA	60.0	Y	6	a120	0.65		1.7m	71	NAK01
2000 03 12.41	a	H	13.9	LA	50.0	C	12	a300	0.44	3	1.5m	62	FUK02
2000 03 12.42	a	V	14.3	LA	50.0	C	12	a300	0.44	3	1.5m	62	FUK02
2000 03 20.42	w	H	13.7	LA	50.0	C	12	a480	0.51	4	1.3m	59	FUK02
2000 03 20.42	w	V	15.0	LA	50.0	C	12	a180	0.51	4	1.3m	59	FUK02

Comet C/1999 S4 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 03 22.79		k	13.7	HS	20.3	T	6	a 60	1.0				LIG

Comet C/1999 T1 (McNaught-Hartley)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 10 12.27		I	[13.5:		41	L	4	183					HAL
1999 11 01.29		I	[13.5:		41	L	4	183					HAL
1999 12 03.23		I	[13.0:		41	L	4	183					HAL
1999 12 04.18		I	[13.5:		41	L	4	183					HAL
2000 01 02.61		S	[14.0	VN	41	L	4	200	! 0.5				PEA
2000 02 02.42		S	[13.5	HS	25	L	5	75	! 0.5				RAE
2000 02 05.40		S	[13.5	HS	25	L	5	75	! 0.5				RAE
2000 03 03.40		S	14.4	HS	25	L	5	180	0.4	3			RAE
2000 03 04.38		S	14.4	HS	25	L	5	180	0.5	3			RAE
2000 03 05.24		I	[13.6	HS	20	L	4	70					LIN04
2000 03 06.38		S	14.5	HS	25	L	5	180	0.4	4			RAE
2000 03 08.36		S	14.5	HS	25	L	5	180	0.4	5			RAE
2000 03 09.36		S	14.4	HS	25	L	5	180	0.5	4			RAE
2000 03 23.34		S	[13.5	HS	25	L	5	180	! 0.5				RAE
2000 03 26.33		S	[13.5	HS	25	L	5	180	! 0.5				RAE

Comet C/1999 T2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 10 31.12		I	[14.0:		41	L	4	183					HAL
2000 01 05.74		B	14.3	HS	42	L	5	162	0.8	4			LEH
2000 01 06.78		B	14.3	HS	42	L	5	162	0.8	4			LEH
2000 01 08.41		C	16.0	TJ	18.0	L	6	a 60	0.35				YOS04
2000 01 23.73		B	14.2	HS	42	L	5	162	0.9	4			LEH
2000 01 30.75		B	14.2	HS	42	L	5	162	0.8	4			LEH
2000 04 06.10		S	13.3	AC	40.6	L	5	72	1.8	2			RES
2000 04 08.08		S	13.6	AC	40.6	L	5	72	1.0	2			RES

Comet C/1999 T3 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 03.52		C	17.7	GA	60.0	Y	6	a240	0.35		0.4m	36	NAK01
2000 02 04.43		C	17.8	GA	60.0	Y	6	a240	0.4		0.4m	32	NAK01

Comet C/1999 U1 (Ferris)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 04.56		C	17.4	GA	60.0	Y	6	a240	0.45		0.8m	129	NAK01
2000 01 28.48		C	17.5	GA	60.0	Y	6	a240	0.45		1.0m	128	NAK01

Comet C/1999 U4 (Catalina-Skiff)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 05.80		B	14.9	HS	42	L	5	162	0.5	5			LEH
2000 01 06.85		B	14.8	HS	42	L	5	162	0.5	4			LEH
2000 01 28.44		C	17.0	GA	60.0	Y	6	a240	0.45				NAK01
2000 02 28.76		B	14.2	HS	42	L	5	162	0.8	4			LEH
2000 03 01.44		a C	17.4	GA	60.0	Y	6	a240	0.35				NAK01

Comet C/1999 XS87 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 15.69		C	16.2:	TJ	18.0	L	6	a 60	0.2				YOS04
2000 01 27.61		C	16.3	GA	60.0	Y	6	a240	0.55				NAK01
2000 02 04.58		C	16.7	GA	60.0	Y	6	a240	0.55			60	NAK01
2000 02 05.50		C	16.7	TJ	18.0	L	6	a 90	0.3				YOS04
2000 02 11.50		C	17.4	GA	60.0	Y	6	a240	0.45				NAK01
2000 02 29.53		C	17.9	GA	60.0	Y	6	a240	0.3				NAK01

Comet C/1999 Y1 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 03.54		C	16.3	GA	60.0	Y	6	a120	0.35			65	NAK01
2000 01 03.64		C	15.9	TJ	18.0	L	6	a 60	0.35				YOS05
2000 01 05.84		B	14.6	HS	42	L	5	162	0.6	4			LEH
2000 01 06.86		B	14.6	HS	42	L	5	162	0.6	5			LEH
2000 01 08.46		C	15.8	TJ	18.0	L	6	a 90	0.5				YOS04
2000 01 18.44		C	16.3	GA	60.0	Y	6	a120	0.45				NAK01
2000 01 28.49		C	16.3	GA	60.0	Y	6	a120	0.4				NAK01
2000 02 04.45		C	16.4	GA	60.0	Y	6	a120	0.45			40	NAK01
2000 02 05.42		C	15.9	TJ	18.0	L	6	a 90	0.3				YOS04
2000 02 11.41		C	16.2	GA	60.0	Y	6	a120	0.4			50	NAK01
2000 02 28.77		B	13.9:	HS	42	L	5	162	1	3			LEH
2000 02 29.44		C	16.1	GA	60.0	Y	6	a120	0.35			60	NAK01
2000 03 02.79		B	13.9	HS	42	L	5	162	1	3/			LEH
2000 03 04.85		S	14.5	HS	35	L	5	208	0.8	3			HOR02
2000 03 09.44		C	16.2	GA	60.0	Y	6	a120	0.35			55	NAK01
2000 03 23.78		B	13.6	HS	42	L	5	162	1.1	3/			LEH
2000 03 30.44	a	C	16.0	GA	60.0	Y	6	a120	0.35			35	NAK01
2000 04 02.83		S	13.6	AC	40.6	L	5	72	0.8	2			RES
2000 04 04.82		S	13.8	AC	40.6	L	5	72	0.7	2/			RES
2000 04 06.85		S	13.7	AC	40.6	L	5	72	0.6	2			RES
2000 04 07.84		S	14.0	AC	40.6	L	5	72	0.8	2			RES

Comet C/2000 A1 (Montani)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 27.62		C	19.3	GA	60.0	Y	6	a240	0.2	8			NAK01
2000 02 04.63		C	19.3	GA	60.0	Y	6	a240	0.2	8			NAK01
2000 03 09.60		C	19.2	GA	60.0	Y	6	a240	0.25				NAK01

Comet C/2000 B2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 02 04.53		C	18.3	GA	60.0	Y	6	a240	0.25				NAK01
2000 02 11.55		C	18.2	GA	60.0	Y	6	a240	0.35				NAK01
2000 02 29.55		C	18.4	GA	60.0	Y	6	a240	0.3				NAK01
2000 03 09.54		C	18.5	GA	60.0	Y	6	a240	0.25				NAK01
2000 03 30.53	a	C	18.8	GA	60.0	Y	6	a240	0.25				NAK01

Comet C/2000 B4 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 02 29.60		C	19.9	GA	60.0	Y	6	a240		9			NAK01
2000 03 02.56		C	20.2	GA	60.0	Y	6	a240		9			NAK01

Comet C/2000 CT54 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 03 13.74		C	17.2	GA	60.0	Y	6	a240	0.4		0.5m	330	NAK01
2000 03 30.70	a	C	16.7	GA	60.0	Y	6	a240	0.4		0.4m	345	NAK01
2000 04 24.61	x	C	16.3	HV	60.0	Y	6	a240	0.4		0.7m	350	NAK01

Comet C/2000 D2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 03 02.53		C	19.2	GA	60.0	Y	6	a240		9			NAK01
2000 03 30.48		C	18.8	GA	60.0	Y	6	a240	0.25				NAK01

Comet 4P/Faye

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 02 04.68		C	16.1	GA	60.0	Y	6	a240	0.75		1.9m	300	NAK01
2000 02 09.70		C	16.4	TJ	18.0	L	6	a 60	0.45				YOS04
2000 03 02.63		C	16.4	GA	60.0	Y	6	a240	0.8		1.8m	292	NAK01

Comet 9P/Tempel 1

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 31.67			S[11.0	TJ	25.6	L	5	169	1.5				BIV
2000 02 02.67			S[10.0	HS	25	L	5	75	! 1.0				RAE
2000 02 11.86	1	C	[12.0	TJ	18.0	L	6	a 20					YOS04

Comet 10P/Tempel 2

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 05 15.32			I[13.5:		41	L	4	183					HAL
1999 05 18.29			I[14.0:		41	L	4	183					HAL
1999 06 05.23			S 13.7	NP	41	L	4	183	1	4/			HAL
1999 06 12.25			S 13.6	NP	41	L	4	183	1				HAL
1999 06 21.01	s	C	14.2	TT	20.0	L	4	a120	0.5				MILO2
1999 07 04.25			S 12.8	NP	41	L	4	183	2				HAL
1999 07 12.21			M 12.2	NP	41	L	4	72	2				HAL
1999 07 19.84			C 12.7	TT	20.0	L	4	a420	1.3				MILO2
1999 07 31.17			S 11.0	NP	41	L	4	72	3				HAL
1999 08 19.16			S 9.6:	NP	41	L	4	72	4				HAL
1999 08 31.14			S 9.7:	NP	41	L	4	72	5				HAL
1999 09 05.20			S 9.7:	NP	41	L	4	72	5				HAL
1999 09 09.14			S 10.2:	NP	41	L	4	72	4				HAL
1999 09 12.18			M 10.0	NP	41	L	4	72	4	3			HAL
1999 09 28.12			S 10.7	NP	41	L	4	72	4				HAL
1999 10 03.14			S 10.2	NP	41	L	4	72	4	3			HAL
1999 10 10.13			S 10.4:	NP	41	L	4	72	4	2/			HAL
1999 10 28.11			S 10.7	NP	41	L	4	72	3.5	3			HAL
1999 11 03.11			S 10.8	NP	41	L	4	72	4				HAL
1999 12 08.73			S 12.0	HS	35	L	5	166	2.6	2			HOR02
2000 01 05.73			S 13.3	HS	35	L	5	166	1.4	2/			HOR02
2000 01 05.75			M 13.0	HS	42	L	5	162	1.5	3			LEH
2000 01 05.79			S 13.8	NP	25	L	5	133	0.75	3			SEG
2000 01 06.74			B 13.2	HS	42	L	5	162	1.5	3			LEH
2000 01 06.74			S 13.2	HS	35	L	5	208	1.4	2			HOR02
2000 01 30.74			B 13.8	HS	42	L	5	162	1	3/			LEH

Comet 21P/Giacobini-Zinner

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 01 04.08			M 10.8	NP	41	L	4	72	3				HAL
1999 01 12.10			M 10.7	NP	41	L	4	72	2	4			HAL
1999 01 18.10			M 11.0	NP	41	L	4	72	2				HAL
1999 02 04.09			M 11.5	NP	41	L	4	72	2				HAL
1999 02 16.10			M 12.2	NP	41	L	4	72	2	5			HAL

Comet 29P/Schwassmann-Wachmann 1

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 01 15.51			I[13.5:		41	L	4	183					HAL
1999 01 24.50			I[13.5:		41	L	4	183					HAL
1999 02 12.47			I[13.5:		41	L	4	183					HAL
1999 02 21.46			I[13.5:		41	L	4	183					HAL
1999 02 27.52			I[13.5:		41	L	4	183					HAL
1999 03 20.35			I[13.5:		41	L	4	183					HAL
1999 03 28.48			I 13.0:	NP	41	L	4	183	0.0	9			HAL
1999 04 09.34			S 13.1	NP	41	L	4	183	1.5	3/			HAL
1999 04 17.33			S 13.1	NP	41	L	4	183	2				HAL
1999 05 09.32			I[13.5:		41	L	4	183					HAL
1999 05 15.27			I[13.5:		41	L	4	183					HAL
1999 06 04.17			I[13.5:		41	L	4	183					HAL
1999 06 12.21			S 12.9	NP	41	L	4	183	1.5	3/			HAL
1999 07 08.18			I[13.5:		41	L	4	183					HAL
2000 01 02.80			S[12.5	VN	41	L	4	200	! 0.5				PEA
2000 02 08.63			S[10.5	TT	25	L	5	75	! 1.0				RAE
2000 02 11.84	1	C	[15.3	TJ	18.0	L	6	a 60					YOS04
2000 03 05.56			S 13.9	HS	20	L	4	70	0.8	3			LIN04
2000 03 12.54			I[13.7	HS	20	L	4	70					LIN04

Comet 37P/Forbes

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 03 21.50		S	13.3:	NP	41	L	4	183	1				HAL
1999 03 22.50		S	13.3	NP	41	L	4	183	1	3			HAL
1999 04 14.47		S	13.0	NP	41	L	4	183	2				HAL
1999 04 20.47		S	12.9	NP	41	L	4	183	2				HAL
1999 05 13.45		S	12.6	AC	41	L	4	72	2	3/			HAL
1999 05 21.44		S	12.6	AC	41	L	4	72	2				HAL
1999 06 10.42		M	12.1	AC	41	L	4	72	2	4			HAL
1999 06 22.44		M	11.7	AC	41	L	4	72	2				HAL
1999 07 13.44		S	12.5	NP	41	L	4	72	2				HAL
1999 07 23.45		S	12.8	AC	41	L	4	183	2				HAL

Comet 50P/Arend

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 07.92		S	[14.5	HS	44.0	L	5	156					HAS02
2000 02 04.55		C	16.9	GA	60.0	Y	6	a240	0.65				NAK01
2000 03 09.58		C	17.5	GA	60.0	Y	6	a240	0.45				NAK01

Comet 52P/Harrington-Abell

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 01 08.20		M	11.1	NP	41	L	4	72	1.5				HAL
1999 01 15.27		M	11.2	NP	41	L	4	72	2				HAL
1999 01 23.33		M	11.4	NP	41	L	4	72	2				HAL
1999 02 04.12		M	11.6:	NP	41	L	4	72	1.5				HAL
1999 02 13.24		M	11.5	NP	41	L	4	72	1.5				HAL
1999 03 20.19		S	12.8	NP	41	L	4	183	1				HAL

Comet 59P/Kearns-Kwee

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 12 02.89		S	13.8	HS	35	L	5	208	1.2	2/			HOR02
1999 12 08.90		S	13.7	HS	35	L	5	208	1.2	2/			HOR02
1999 12 14.11		S	14.0	HS	35	L	5	208	1.1	2/			HOR02
1999 12 20.17		S	13.8	HS	35	L	5	208	1.2	3			HOR02
1999 12 30.87		S	13.7	HS	35	L	5	208	1.0	2			HOR02
2000 01 02.65		S	[14.0	VN	41	L	4	200	! 0.5				PEA
2000 01 04.67		C	16.0	GA	60.0	Y	6	a240	0.8		1.1m	286	NAK01
2000 01 05.85		S	14.0	HS	35	L	5	208	1.3	2/			HOR02
2000 01 05.99		B	13.9	HS	42	L	5	162	1.1	3			LEH
2000 01 06.86		S	13.8	HS	35	L	5	208	1.1	2			HOR02
2000 01 06.89		B	13.8	HS	42	L	5	162	1	3			LEH
2000 01 07.16		!	J 14.6	SC	25.4	T	5	a100	0.52	d1			ROQ
2000 01 07.91		S	[14.5	HS	44.0	L	5	156					HAS02
2000 01 11.85		S	13.8	HS	35	L	5	208	1.1	2/			HOR02
2000 01 29.16		J	13.0	SC	25.4	T	5	a100	3.56	s5	1.5m	285	ROQ
2000 01 30.80		S	14.3:	HS	35	L	5	208	0.9	2/			HOR02
2000 02 01.80		S	14.4	HS	35	L	5	208	0.9	2/			HOR02
2000 02 04.56		C	15.8	GA	60.0	Y	6	a240	0.9		1.2m	304	NAK01
2000 02 05.79		B	14.0	HS	42	L	5	162	0.8	4			LEH
2000 02 09.80		S	14.3	HS	35	L	5	208	1.0	2			HOR02
2000 02 10.76		S	14.3	HS	35	L	5	208	0.9	2/			HOR02
2000 02 28.83		0	[14.5	HS	42	L	5	162	! 0.5				LEH
2000 03 09.59		C	17.2	GA	60.0	Y	6	a240	0.55				NAK01
2000 03 11.14		J	15.5	SC	25.4	T	5	a100	0.36	s2			ROQ

Comet 60P/Tsuchinshan 2

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 01 10.17		I	[13.5:		41	L	4	183					HAL
1999 01 19.20		I	[14.0:		41	L	4	183					HAL
1999 02 06.15		I	[13.5:		41	L	4	183					HAL
1999 02 10.18		I	[13.5:		41	L	4	183					HAL
1999 02 16.23		I	[14.0:		41	L	4	183					HAL
1999 03 05.11		I	[13.0:		41	L	4	183					HAL

Comet 60P/Tsuchinshan 2 [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 03 20.15			I[13.5:		41	L	4	183					HAL
1999 04 06.18			I[13.5:		41	L	4	183					HAL
1999 04 09.17			I[14.0:		41	L	4	183					HAL

Comet 63P/Wild 1

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 11 09.51			I[13.5:		41	L	4	183					HAL
1999 11 20.49			I[13.5:		41	L	4	183					HAL
1999 12 05.50		S	13.5	NP	41	L	4	183	1	1			HAL
1999 12 08.50		S	13.4	NP	41	L	4	183	1	1			HAL
1999 12 18.51		S	13.5	NP	41	L	4	183	1				HAL
2000 01 01.83		C	16.2	TJ	18.0	L	6	a 60	0.5				YOS05
2000 01 02.82		S	13.7	VN	41	L	4	90	1.5	1			PEA
2000 01 03.82		S	13.4	HS	25.4	T	6	116	1.1	4			YOS04
2000 01 05.23		S	13.5	VB	30	R	20	185	0.5	3			SHA02
2000 01 06.11		B	13.5	HS	42	L	5	162	1.2	3			LEH
2000 01 06.16		S	13.3	HS	35	L	5	208	1.3	2			HOR02
2000 01 06.19		S	12.5	AC	25.4	L	5	104	1.5	3			MEY
2000 01 09.23		S	13.5	VB	30	R	20	185	0.7	3			SHA02
2000 01 12.15		S	13.1:	HS	35	L	5	208	1.4	2			HOR02
2000 01 12.19		S	12.7	AC	25.4	L	5	104	1.8	2			MEY
2000 01 13.18		S	12.2	AC	25.4	L	5	65	2.6	2/			MEY
2000 02 01.67		S	13.3	GA	25.4	L	4	71					SEA
2000 02 02.56		S	12.7	HS	25	L	5	75	1.6	3			RAE
2000 02 06.12		S	12.3	HS	44.5	L	4	146	2.8	2			SAR02
2000 02 11.80		C	15.1	TJ	18.0	L	6	a 70	0.5				YOS04
2000 02 16.71		S	[13.5	GA	25.4	L	4	114					SEA
2000 03 13.76	a	C	14.8	GA	60.0	Y	6	a120	1.0		1.4m	119	NAK01

Comet 71P/Clark

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 01.14			c[20.5	TI	60.0	D	2						SAR02
2000 03 02.63		C	19.1	GA	60.0	Y	6	a240	0.2				NAK01
2000 03 30.66		C	18.3	GA	60.0	Y	6	a240	0.3				NAK01
2000 04 24.52		C	18.1	GA	60.0	Y	6	a240	0.35				NAK01

Comet 73P/Schwassmann-Wachmann 3

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 03 01.58		C	19.5	GA	60.0	Y	6	a240	0.2				NAK01
2000 03 30.54		C	19.2	GA	60.0	Y	6	a240	0.25				NAK01

Comet 74P/Smirnova-Chernykh

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 04.61		C	15.9	GA	60.0	Y	6	a240	0.6		1.2m	270	NAK01
2000 01 05.97		B	14.8	HS	42	L	5	162	0.5	5			LEH
2000 01 08.92		B	14.3	HS	42	L	5	162	0.8	4			LEH
2000 01 09.17	!	J	15.1	SC	25.4	T	5	a100	0.38	s5/	0.8m	270	ROQ
2000 01 15.73		C	15.4	TJ	18.0	L	6	a 60	0.65				YOS04
2000 01 28.57		C	15.9	GA	60.0	Y	6	a120	0.6				NAK01
2000 01 30.12		J	14.1	SC	25.4	T	5	a100	0.57	s3			ROQ
2000 02 27.77		B	13.6	HS	42	L	5	162	0.9	4			LEH
2000 02 27.83		S	14.3	HS	35	L	5	208	0.9	1/			HOR02
2000 02 28.81		B	13.9	HS	42	L	5	162	0.8	4			LEH
2000 03 02.52		C	16.2	GA	60.0	Y	6	a120	0.55				NAK01
2000 03 02.78		B	14.0	HS	42	L	5	162	0.9	4			LEH
2000 03 04.87		S	14.3	HS	35	L	5	208	0.8	2/			HOR02
2000 03 23.81		B	14.2	HS	42	L	5	162	0.8	4			LEH
2000 03 25.88		B	14.3	HS	42	L	5	162	0.7	4			LEH
2000 04 06.85		S	14.0	AC	40.6	L	5	72	0.8	3			RES
2000 04 07.85		S	13.5	AC	40.6	L	5	72	1.2	2			RES
2000 04 28.15		J	15.4	SC	25.4	T	5	a100	0.62	s6			ROQ

Comet 84P/Giclas

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 02.59		S	[14.0	VN	41	L	4	200	0.5				PEA
2000 01 03.63		C	16.5	TJ	18.0	L	6	a 60	0.5				YOS05
2000 01 04.55		C	15.5	GA	60.0	Y	6	a120	0.9				NAK01
2000 01 05.86		B	14.8	HS	42	L	5	162	0.6	4			LEH
2000 01 06.90		B	14.8	HS	42	L	5	162	0.6	4			LEH
2000 01 26.79		S	14.7	HS	44.0	L	5	226	0.2	4			HAS02
2000 01 28.52		C	16.3	GA	60.0	Y	6	a240	0.8				NAK01
2000 03 01.48		C	17.5:	GA	60.0	Y	6	a240	0.55	1/			NAK01

Comet 93P/Lovas 1

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 01 10.16		S	13.6	NP	41	L	4	183	1				HAL

Comet 95P/Chiron

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 05 09.33		I	[15.3	NP	41	L	4	183	0.0				HAL

Comet 105P/Singer Brewster

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 04 18.42		I	[14.0:		41	L	4	183					HAL
1999 05 15.37		I	[14.0:		41	L	4	183					HAL
1999 06 06.27		I	[14.0:		41	L	4	183					HAL

Comet 106P/Schuster

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 10 29.14	!	S	12.9:	AC	41	L	4	183	1				HAL
1999 10 30.21		S	13.0	NP	41	L	4	183	1				HAL
1999 11 05.23		S	13.1	NP	41	L	4	72	1				HAL
1999 12 03.18		S	13.2	NP	41	L	4	183	2				HAL
1999 12 04.74		S	12.7:	AC	25.4	L	5	104	0.9	3/			MEY
1999 12 08.77		S	13.5	HS	35	L	5	208	1.0	2			HOR02
1999 12 10.11		S	13.2	AC	41	L	4	183	2				HAL
2000 01 02.58		S	13.6	VN	41	L	4	200	0.9	1			PEA
2000 01 04.11		J	13.3	SC	25.4	T	5	a100	1.09	s3/	3.3m	77	ROQ
2000 01 04.48		C	14.8	GA	60.0	Y	6	a120	0.95		1.6m	73	NAK01
2000 01 04.79		S	14.0:	VB	30	R	20	185	0.7	3			SHA02
2000 01 05.74		S	13.6	HS	35	L	5	208	1.1	2/			HOR02
2000 01 05.78		B	13.5	HS	42	L	5	162	1.4	3			LEH
2000 01 06.76		S	13.6	HS	35	L	5	208	1.1	2/			HOR02
2000 01 06.80		B	13.1	HS	42	L	5	162	1.5	3			LEH
2000 01 07.89		S	13.4	HS	44.0	L	5	156	0.9	3			HAS02
2000 01 08.44		C	15.8	HS	18.0	L	6	a 60	0.5		0.7m	53	YOS04
2000 01 08.84		S	[13.5	VB	30	R	20	185					SHA02
2000 01 09.77		S	13.3	GA	25.4	J	6	100	1.2	2			BOU
2000 01 11.75		C	14.5	HV	20.3	T	6	a120	1.0				LIG
2000 01 23.77		C	15.0	HV	20.3	T	6	a120	1.0				LIG
2000 01 23.78		B	13.6	HS	42	L	5	162	1.4	3			LEH
2000 01 25.76		S	14.0	HS	35	L	5	208	1.0	2			HOR02
2000 01 26.77		S	13.4	HS	44.0	L	5	156	0.2	4			HAS02
2000 01 27.77		C	15.1	HV	20.3	T	6	a120	0.8				LIG
2000 01 28.41		C	15.5	GA	60.0	Y	6	a120	0.8		1.3m	75	NAK01
2000 01 30.75		S	14.1	HS	35	L	5	208	1.0	2/			HOR02
2000 02 01.76		S	14.0	HS	35	L	5	208	1.0	2/			HOR02
2000 02 05.48		C	15.8	TJ	18.0	L	6	a 60	0.35				YOS04
2000 02 05.75		B	13.9	HS	42	L	5	162	1	3			LEH
2000 02 09.78		S	14.0	HS	35	L	5	208	0.9	2/			HOR02
2000 02 10.76		S	14.0	HS	35	L	5	208	1.0	2/			HOR02
2000 02 27.79		S	14.0	HS	44.0	L	5	156	0.4	4			HAS02
2000 03 01.45		C	16.7	GA	60.0	Y	6	a240	0.45		0.8m	72	NAK01

Comet 114P/Wiseman-Skiff

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 10 31.22			I[14.0:		41	L	4	183					HAL
1999 11 12.22			S 14.1	NP	41	L	4	183	0.5				HAL
1999 11 15.28			S 14.1	NP	41	L	4	183	0.5				HAL
1999 11 27.89			C 14.1	TT	20.0	L	4	a200	0.8				MILO2
1999 11 29.92			C 14.5	TT	20.0	L	4	a200	0.9				MILO2
1999 12 02.82			S 13.6	HS	35	L	5	208	1.0	2/			HORO2
1999 12 04.17			S 13.3	NP	41	L	4	183	1				HAL
1999 12 04.73			S 13.1	AC	25.4	L	5	104	1.3	3/			MEY
1999 12 07.94			C 14.1	TT	20.0	L	4	a200	1.0				MILO2
1999 12 08.79			S 13.2	HS	35	L	5	208	1.4	3			HORO2
1999 12 09.87			S 13.4	HS	35	L	5	208	1.2	3			HORO2
1999 12 12.27			S 13.1	NP	41	L	4	183	1				HAL
1999 12 13.90			S 13.1	AC	25.4	L	5	104	1.0	3/			MEY
1999 12 14.09			S 13.3	HS	35	L	5	208	1.3	2/			HORO2
1999 12 28.19			S 13.2	NP	41	L	4	183	1				HAL
1999 12 30.86			S 13.4:	HS	35	L	5	208	0.9	3			HORO2
2000 01 02.60			S 13.8	VN	41	L	4	200	0.9	2			PEA
2000 01 02.92	x		C 14.5	TT	20.0	L	4	a300	0.8				MILO2
2000 01 03.53			C 14.2	GA	60.0	Y	6	a120	1.2				NAK01
2000 01 03.60			C 14.1	TJ	18.0	L	6	a 60	0.8				YOS05
2000 01 04.82			S 13.8	VB	30	R	20	185	1.1	3			SHA02
2000 01 04.84	x		C 14.1	HV	20.3	T	6	a120	1.0				LIG
2000 01 05.08			J 13.5	SC	25.4	T	5	a100	1.14	s4	2.6m	76	ROQ
2000 01 05.76			S 13.6	AC	25.4	L	5	104	1.3	3/			MEY
2000 01 05.79			S 13.8	HS	35	L	5	208	1.1	2			HORO2
2000 01 05.81			S 13.8	NP	25	L	5	133	1	5			SEG
2000 01 05.83			B 13.4	HS	42	L	5	162	1.4	3			LEH
2000 01 06.78			S 13.8	HS	35	L	5	208	1.1	3			HORO2
2000 01 06.83			B 13.3	HS	42	L	5	162	1.4	3			LEH
2000 01 07.89			S 13.7	HS	44.0	L	5	156	0.6	4			HAS02
2000 01 08.48			C 14.3	TJ	18.0	L	6	a 60	0.6				YOS04
2000 01 08.88			S 14.0	VB	30	R	20	300	0.8	2			SHA02
2000 01 09.76			S 13.5	GA	25.4	J	6	150	1.0	3			BOU
2000 01 11.76			C 14.3	HV	20.3	T	6	a120	1.0				LIG
2000 01 11.84			S 13.6	HS	35	L	5	208	1.1	2/			HORO2
2000 01 11.86			S 13.7	AC	25.4	L	5	104	1.3	3/			MEY
2000 01 23.78			C 14.5	HV	20.3	T	6	a120	1.2				LIG
2000 01 23.80			B 14.0	HS	42	L	5	162	0.9	3			LEH
2000 01 24.78			S 14.1	VB	30	R	20	185	0.6	2			SHA02
2000 01 25.77			S 13.8	HS	35	L	5	208	0.9	3			HORO2
2000 01 25.89	&		S 13.6	HS	40.6	L	5	96	1.1	1			MOR09
2000 01 25.89	x		C 14.9	TT	20.0	L	4	a300	0.8				MILO2
2000 01 26.78			S 13.7	HS	44.0	L	5	156	0.4	3			HAS02
2000 01 27.79			C 14.5	HV	20.3	T	6	a120	1.0				LIG
2000 01 28.51			C 15.1	GA	60.0	Y	6	a120	0.8		1.1m	63	NAK01
2000 01 30.79			S 13.9	HS	35	L	5	208	1.1	3			HORO2
2000 01 31.86			C 15.3	UO	20.0	T	3	a300	0.80		1.1m	65	BOS01
2000 02 01.79			S 13.9	HS	35	L	5	208	1.1	2/			HORO2
2000 02 05.43			C 15.3	TJ	18.0	L	6	a 60	0.3		0.6m	127	YOS04
2000 02 05.76			B 14.0	HS	42	L	5	162	1	3			LEH
2000 02 09.78			S 13.9	HS	35	L	5	208	1.0	2/			HORO2
2000 02 10.77			S 13.8	HS	35	L	5	208	0.9	3			HORO2
2000 02 12.53			C 15.7	HS	18.0	L	6	a 60	0.35				YOS04
2000 02 27.48			C 15.9:	GA	60.0	Y	6	a120	0.6		0.6m	68	NAK01
2000 02 27.78			S 14.0	HS	44.0	L	5	156	0.4	4			HAS02
2000 02 27.85			C 15.8	UO	20.0	T	5	a180	0.30				BOS01

Comet 140P/Bowell-Skiff

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 02 10.15			I[14.0:		41	L	4	183					HAL
1999 03 20.16			I[14.0:		41	L	4	183					HAL
1999 04 06.19			I[14.0:		41	L	4	183					HAL
1999 05 08.14			I[14.0:		41	L	4	183					HAL

Comet 141P/Machholz 2

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 11 12.76			& S 12.5	HS	40.6	L	5	96	2.9	1			MOR09
1999 11 15.72	x		S 11.0:	TT	35	M	10	288	0.5	4			DRA02
1999 12 04.67	x		S 9.5:	TJ	20	L	5	50	& 2				POW01
1999 12 08.69	x		S 12.7:	HS	35	M	10	225	1.2	3			DRA02
2000 01 23.74			C 13.7	HV	20.3	T	6	a120	1.5				LIG
2000 01 29.95	x		S 10.4	TJ	23.0	L	5	36	2	5			DES01

Comet 141P/Machholz 2 [component A]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 09 30.12			S[13.5	NP	41	L	4	183	1				HAL
1999 09 30.12			S[14.0	NP	41	L	4	183	0.5				HAL
1999 10 10.12			I[13.5:		41	L	4	183					HAL
1999 10 28.09			I[13.5:		41	L	4	183					HAL
1999 11 03.09			I[13.5:		41	L	4	183					HAL
1999 11 06.08			I[13.5:		41	L	4	183					HAL
1999 11 09.09			I[13 :		41	L	4	183					HAL
1999 11 10.09			S 13.2	NP	41	L	4	183	1	1			HAL
1999 11 26.08			S 13.4	NP	41	L	4	183	1.5	1			HAL
1999 12 04.70			S 10.6	AC	25.4	L	5	65	2.9	2/			MEY
1999 12 05.08			S 11.3	NP	41	L	4	72	2	3			HAL
1999 12 05.71	x		S 11.2	TJ	25.4	J	6	72	1.8	1/			BOU
1999 12 05.72			S 12.3	HS	35	L	5	166	1.2	4			HOR02
1999 12 08.71			S 12.3	HS	35	L	5	166	1.1	4			HOR02
1999 12 10.08			S 11.2	NP	41	L	4	72	2.5	2/			HAL
1999 12 17.70			S 11.4	HS	35	L	5	208	1.5	3/			HOR02
1999 12 23.70			[10.9	HS	35	L	5	92	! 1.5				HOR02
1999 12 26.53	x		S 9.8	TT	8.0	B		20	5.3	2			PEA
1999 12 26.53	x		S 10.1	TT	20	L	4	45	4.5	2			PEA
1999 12 27.09			M 10.2	NP	41	L	4	72	4	3/			HAL
1999 12 31.67			c 14.4	TI	60.0	D	2		1.2				SAR02
2000 01 01.26			S 9.5	TJ	5.0	B		7	6	3			BIV
2000 01 01.74			S 9.9	TJ	33	L	5	75	1.9	2			SHA02
2000 01 02.28			S 9.3	TJ	5.0	B		7	7	3			BIV
2000 01 02.54	x		S 10.3	TT	20	L	4	45	4	3			PEA
2000 01 02.55	x		S 9.8	TT	8.0	B		20	7.8	3			PEA
2000 01 02.72			S 9.4	TJ	10.0	B		20	5.5	2/			MEY
2000 01 03.25			S 9.3	TJ	5.0	B		7	6	3			BIV
2000 01 04.26			S 9.5	TJ	5.0	B		7	6	3			BIV
2000 01 04.75			S 9.6	TJ	33	L	5	75	3.5	2			SHA02
2000 01 05.69			S 10.0	NP	25	L	5	30	4	7			SEG
2000 01 05.70			S 9.5	TJ	25.4	L	5	65	4.0	2/			MEY
2000 01 05.71			S 10.0	HS	35	L	5	92	3.5	2			HOR02
2000 01 05.76			M 10.7	TT	42	L	5	81	2.7	3			LEH
2000 01 05.97			S 9.9	TI	40.6	L		70	2.5	2			BOR
2000 01 06.23			S 9.5	TJ	25.6	L	5	42	7	3			BIV
2000 01 06.41			M 9.7	TT	25	L	5	32	4.5	3/			RAE
2000 01 06.69			S 9.0	AC	6.0	B		20	3	3			RES
2000 01 06.72			S 10.0	HS	35	L	5	92	3.3	3			HOR02
2000 01 06.76			M 10.7	TT	42	L	5	81	3.5	3			LEH
2000 01 07.25			S 9.9	TJ	5.0	B		7	7	4			BIV
2000 01 07.25			S 10.0	TJ	25.6	L	5	42	6.5	3			BIV
2000 01 07.43	x		S 9.8	TT	10.0	B		20	5	2/			YOS02
2000 01 07.98			S 10.0	TI	40.6	L		70	2.2	1/			BOR
2000 01 08.39			C 12.9	TJ	18.0	L	6	a 60	1.8				YOS04
2000 01 08.74			S 10.8	TT	44.0	L	5	63	2.1	2			HAS02
2000 01 09.73	x		S 9.7	TJ	25.4	J	6	47	4.2	1/			BOU
2000 01 09.74			S 9.7	TJ	33	L	5	60	2.5	2			SHA02
2000 01 09.74	&		S 9.8	HS	12.7	D	10	89	5.4	2			MOR09
2000 01 10.30			S 9.8:	TJ	5.0	B		7	8	2			BIV
2000 01 10.45			S 9.8	GA	25.4	L	4	71	8	4			SEA
2000 01 12.22			S 10.4	TJ	25.6	L	5	42	6.0	2			BIV
2000 01 12.72			S 9.6	TT	11	L	7	50	4.5	2			BAR06
2000 01 13.71			S 9.8	TT	11	L	7	50	5	2			BAR06
2000 01 21.75			S 11.3	TJ	30	R	20	105	1.1	3			SHA02

Comet 141P/Machholz 2 [component A] (cont.)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 23.76		M	11.0	TI	42	L	5	81	2.5	3			LEH
2000 01 24.76		S	13.1	HS	30	R	20	185	0.9	1			SHA02
2000 01 24.83	&	S	11.7	HS	20.3	L	4	61	2.5	2			MOR09
2000 01 25.42		S	10.7	TT	25	L	5	40	3.8	1			RAE
2000 01 25.57		S	12.3	VN	41	L	4	90	1.5	1			PEA
2000 01 25.74		S	10.3:	TT	11	L	7	50	3	2			BAR06
2000 01 25.74		S	10.7:	TT	20	L	5	70	2	2			BAR06
2000 01 25.75		S	11.1	TT	35	L	5	92	3	1			HOR02
2000 01 25.85	&	S	12.5	HS	40.6	L	5	96	2.8	1			MOR09
2000 01 26.77		S	11.5	HS	44.0	L	5	63	1.4	2			HAS02
2000 01 27.41		S	[11.0	HS	25	L	5	75	! 3				RAE
2000 01 28.45		C	13.8	GA	60.0	Y	6	a120	2.6	1			NAK01
2000 01 30.78		S	12.4	HS	35	L	5	166	2.6	1			HOR02
2000 02 01.74		S	12.1	HS	20	L	5	70	1	2			BAR06
2000 02 01.78		S	12.2	HS	35	L	5	92	2.5	1			HOR02
2000 02 02.44			[12.5	GA	25.4	L	4	71					SEA
2000 02 02.83		S	11.5:	TJ	25.4	J	6	47	3.5	0			BOU
2000 02 05.41		S	12.1	HS	25.4	T	6	116	2.1	0			YOS04
2000 02 09.79		S	12.7	HS	35	L	5	208	2.3	1			HOR02
2000 02 11.47		C	15.6	GA	60.0	Y	6	a240	1.5	0/			NAK01
2000 02 27.78		S	[13.0	HS	44.0	L	5	156					HAS02

Comet 141P/Machholz 2 [component D]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 11 03.09		I	[13.5:		41	L	4	183					HAL
1999 11 06.08		I	[13.5:		41	L	4	183					HAL
1999 11 09.09		S	11.9:	NP	41	L	4	183	2	2/			HAL
1999 11 10.09		S	11.9	NP	41	L	4	72	2	2/			HAL
1999 11 12.76	&	S	12.5	HS	40.6	L	5	96	2.9	1			MOR09
1999 11 26.08		S	13.2	NP	41	L	4	183	2	1/			HAL
1999 12 04.70		S	11.8:	AC	25.4	L	5	65	1.6	2/			MEY
1999 12 05.08		S	13.3	NP	41	L	4	183	1	0/			HAL
1999 12 05.72		S	12.2	HS	35	L	5	166	1.5	2			HOR02
1999 12 08.71		S	12.1	HS	35	L	5	166	2	2			HOR02
1999 12 10.08		S	13.2	NP	41	L	4	183	1	0			HAL
1999 12 17.71			[11.5	HS	35	L	5	208	! 1.5				HOR02
1999 12 23.70			[10.9	HS	35	L	5	92	! 1.5				HOR02
1999 12 27.09		I	[13 :		41	L	4	183					HAL
1999 12 31.71		C	[16 :	TI	60.0	D	2		! 1				SAR02
2000 01 01.74		I	[13.5	HS	33	L	5	75					SHA02
2000 01 04.76		S	11.2	TJ	33	L	5	100	1.6	3			SHA02
2000 01 06.75		O	[12.0	TI	42	L	5	81	! 2.5				LEH
2000 01 08.75		S	[12.5	HS	44.0	L	5	156					HAS02
2000 01 25.74		O	[11.5	TI	35	L	5	92	! 2.5				HOR02
2000 01 26.77		S	[12.5	HS	44.0	L	5	156					HAS02
2000 01 30.77		O	[12.4	HS	35	L	5	92	! 2				HOR02

Comet 142P/Ge-Wang

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 09 15.44		c	22.1	FA	91.4	L	5						SC001
1999 09 15.46		C	20.3	FA	91.4	L	5		0.20		31.8s	266	SC001
2000 01 28.46		C	[19.0:		60.0	Y	6	a240	! 0.25				NAK01

Comet 143P/Kowal-Mrkos

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 04 24.58		C	18.3	GA	60.0	Y	6	a240		9			NAK01

Comet P/1998 S1 (LINEAR-Mueller)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 03 01.60		C	18.3	GA	60.0	Y	6	a240	0.3			240	NAK01
2000 03 09.62		C	18.6	GA	60.0	Y	6	a240	0.3				NAK01

Comet P/1998 U3 (Jäger)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 01 07.22		M	10.7	NP	41	L	4	72	2				HAL
1999 01 15.25		M	10.8	NP	41	L	4	72	2				HAL
1999 01 23.28		M	10.9	NP	41	L	4	72	2				HAL
1999 02 04.11		M	11.1	NP	41	L	4	72	2				HAL
1999 02 12.82	&	B	10	S	25.7	L	5	120	2	5			MAN03
1999 02 13.22		M	11.5	NP	41	L	4	72	2				HAL
1999 03 05.11		M	12.7:	NP	41	L	4	183	& 1				HAL
1999 03 20.14		S	12.1	NP	41	L	4	72	1				HAL
1999 04 06.23		S	13.2	NP	41	L	4	183	1				HAL

Comet P/1998 W1 (Spahr)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 01 08.18		S	13.9	NP	41	L	4	183	1				HAL
1999 01 15.15		S	13.6	NP	41	L	4	183	1				HAL
1999 01 23.26		I	[13.5:		41	L	4	183					HAL

Comet P/1998 Y2 (Li)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 01 05.12		S	13.9	NP	41	L	4	183	1				HAL
1999 01 07.18		S	14.0	NP	41	L	4	183	1				HAL
1999 01 15.19		S	14.1	NP	41	L	4	183	1				HAL

Comet P/1999 R028 (LONEOS)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 09 15.36		C	18.6	FA	91.4	L	5		0.15		43.2s	308	SC001
1999 09 15.36		c	20.6	FA	91.4	L	5						SC001
1999 09 19.38		I	[15.0	NP	41	L	4	183	! 0.0				HAL
1999 09 19.38		S	[14.2	NP	41	L	4	183	! 0.5				HAL
1999 10 03.27		I	[15.1	NP	41	L	4	183	! 0.0				HAL
1999 10 03.27		S	[14.3	NP	41	L	4	183	! 0.5				HAL
1999 10 31.24		I	[14.0:		41	L	4	183					HAL

Comet P/1999 U3 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 11 01.22		I	[14.0:		41	L	4	183					HAL
2000 01 03.62		C	15.4	TJ	18.0	L	6	a 60	0.6				YOS05
2000 01 04.54		C	15.1	GA	60.0	Y	6	a120	0.75				NAK01
2000 01 18.46		C	15.5	GA	60.0	Y	6	a120	0.65				NAK01
2000 01 28.50		C	16.2	GA	60.0	Y	6	a120	0.55				NAK01
2000 02 12.54		C	16.7	TJ	18.0	L	6	a 60	0.35				YOS04
2000 02 29.45		C	17.1	GA	60.0	Y	6	a240	0.4			80	NAK01

Comet P/1999 V1 (Catalina)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 04.73		C	17.6	GA	60.0	Y	6	a240	0.45		0.8m	301	NAK01
2000 01 28.64		C	17.3	GA	60.0	Y	6	a240	0.35		1.1m	310	NAK01
2000 03 02.58		C	17.4	GA	60.0	Y	6	a240	0.45		1.1m	310	NAK01
2000 03 25.54		C	17.6	GA	60.0	Y	6	a240	0.5				NAK01
2000 03 26.09		J	17.8	SC	25.4	T	5	a100	0.27	s5			ROQ
2000 04 24.51		C	17.9	GA	60.0	Y	6	a240	0.5				NAK01

Comet P/1999 WJ7 (Korlević)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 02 27.49		C	17.0:	GA	60.0	Y	6	a240	0.3	8			NAK01
2000 03 30.46	a	C	17.2	GA	60.0	Y	6	a240	0.35				NAK01

Comet P/1999 X1 (Hug-Bell)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 01 04.65		C	18.8	GA	60.0	Y	6	a240	0.3				NAK01
2000 01 28.59		C	18.6	GA	60.0	Y	6	a240	0.3				NAK01

Comet P/1999 XB69 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 03 01.50		C	18.4	GA	60.0	Y	6	a240	0.25				NAK01
2000 03 30.51		a	C 18.3	GA	60.0	Y	6	a240	0.35				NAK01
2000 04 24.49		a	C 18.5:	GA	60.0	Y	6	a240	0.25				NAK01

Comet P/1999 XN120 (Catalina)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 03 01.46		C	17.6	GA	60.0	Y	6	a240	0.35			70	NAK01
2000 03 09.45		C	17.4	GA	60.0	Y	6	a240	0.45				NAK01
2000 03 30.45		C	17.8	GA	60.0	Y	6	a240	0.45				NAK01

Comet P/2000 B3 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 02 04.51		C	17.9	GA	60.0	Y	6	a240	0.3				NAK01
2000 02 11.56		C	17.7	GA	60.0	Y	6	a240	0.45				NAK01
2000 02 29.57		C	17.3	GA	60.0	Y	6	a240	0.4				NAK01
2000 03 09.56		C	16.9	GA	60.0	Y	6	a240	0.35			100	NAK01
2000 03 30.55		C	15.7	GA	60.0	Y	6	a240	0.65		0.8m	101	NAK01
2000 04 07.59		C	16.0	TJ	18.0	L	6	a 60	0.3				KAD02
2000 04 11.55		C	15.9	TJ	18.0	L	6	a 60	0.4				KAD02
2000 04 23.51		a	H 16.2	LA	50.0	C	12	a300	0.20	3	0.4m	102	FUK02
2000 04 23.53		a	V 16.8	LA	50.0	C	12	a300	0.20	3	0.4m	102	FUK02
2000 04 24.45		C	16.5	GA	60.0	Y	6	a120	0.45		0.8m	105	NAK01

Comet P/2000 C1 (Hergenrother)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 02 10.79		C	17.0	GA	60.0	Y	6	a240	0.6		0.7m	293	NAK01
2000 02 11.76		C	17.1	TJ	18.0	L	6	a 80	0.45				YOS04
2000 02 29.75		C	16.6	GA	60.0	Y	6	a240	0.4		0.8m	287	NAK01
2000 03 13.68		C	16.4	GA	60.0	Y	6	a240	0.5		0.9m	286	NAK01
2000 03 30.67		C	16.2	GA	60.0	Y	6	a240	0.5				NAK01
2000 04 07.57		C	16.4	TJ	18.0	L	6	a 60	0.3				KAD02
2000 04 11.59		C	16.5	TJ	18.0	L	6	a 60	0.35				KAD02
2000 04 24.60		C	16.3	GA	60.0	Y	6	a240	0.8				NAK01

Comet P/2000 G1 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2000 04 12.80		C	15.0	GA	60.0	Y	6	a240	0.95				NAK01
2000 04 16.78		C	15.9	TJ	18.0	L	6	a 60	0.4				KAD02

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Books Received

Osservare le Comete: Guida per l'astronomo dilettante, Allegato al n. 201 agosto-settembre 1999 di *Astronomia*, ed. by Giannantonio Milani (Milano), 125 pages, paperback; 1999.

This attractive Italian guide to observing comets was issued several months ago as a special issue of *Astronomia* magazine. Editor Giannantonio Milani has also written chapters on comet designations, comet anatomy, and visual and photographic observations. Comet discoverer Mauro Vittorino Zanotta wrote a chapter on comet hunting, and Herman Mikuz and Bojan Dintinjana added a chapter on CCD photometry of comets. Chapters on imaging by Angelo Salmaso and on astrometry by Franco Piani round out the book.