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CORRIGENDA

• The CCD photometry from pages 19-20 of the January 2002 issue were inadvertently repeated on pp. 40-41, and a couple of pages of visual data were accidentally omitted. Those visual observations are published in this issue.

• On page 41 of the January 2002 issue, the first line under "Designations of Recent Comets" should begin "Listed on page 42,"; similarly, near the top of page 42, the second line should read [cont. from page 41]

Tabulation of Comet Observations

Due to the delay in publication schedule this year, we are issuing the April and July issues within a couple of weeks of each other. For this reason, CCD data and those contributed on paper are being held to the July issue.

◇ ◇ ◇

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

See the July 2001 issue (page 98) for explanations of the abbreviations used in the descriptive information.

◇ *Comet 19P/Borrelly* ⇒ 2001 Sept. 22.06: fan-like coma w/ starlike central cond. [BAR06]. Oct. 17.02: elongated coma [BAR06]. 2002 Jan. 6.15: coma still clearly elongated; close to 10th-mag star; last-quarter Moon [GRA04]. Jan. 19.78: GUIDE 7.0 software [YOS02]. Feb. 5.02: limiting mag 15.8; second confirming detection made at Feb. 5.07 (81×) [LEH]. Feb. 15.02: limiting mag 16.5; second confirming detection made at Feb. 15.07 (162×) [LEH]. Feb. 16.02, Mar. 4.94, 5.94, 9.00, 11.00, 11.92, 12.89, and 13.78: limiting mag ~ 16 [LEH]. Feb. 16.02: second confirming detection made at Feb. 16.07 (81×) [LEH]. Mar. 4.94: second confirming detection made at Mar. 4.99 (81×) [LEH]. Mar. 5.94: second confirming detection made at Mar. 5.99 (81×) [LEH]. Mar. 9.00: second confirming detection made at Mar. 9.04 (162×) [LEH]. Mar. 11.00: second confirming detection made at Mar. 11.08 (162×) [LEH]. Mar. 11.92: second confirming detection made at Mar. 12.00 (162×) [LEH]. Mar. 12.89: second confirming detection made at Mar. 12.97 (162×) [LEH]. Mar. 13.78: second confirming detection made at Mar. 13.83 (162×) [LEH]. Mar. 18.80: difficult object; near bright star [RES].

◇ *Comet 65P/Gunn* ⇒ 2002 Mar. 10.81: ephemeris from SAO's Minor Planet Electronic Service website; DSS also checked; limiting stellar mag 15.5 [HAS02]. Mar. 18.91: confirmation of movement during Mar. 18.82-18.91; faint, diffuse object; ephemeris via Guide 8 from elements on ICQ/MPC webpage [RES]. Mar. 20.01: confirmation of movement during Mar. 19.97-20.02; faint diffuse object; ephemeris via Guide 8 from elements on ICQ/MPC webpage; naked-eye mag limit at comet ~ 6.6 [RES]. Apr. 3.82: motion checked during 3-hr interval; position taken from MPEC elements; field mag limit ~ 15.6 (using USNO V reference); comparison from ST LMi AAVSO chart [RES]. Apr. 30.97: motion checked during 1-hr period [RES].

◇ *Comet 153P/2002 C1 (Ikeya-Zhang)* ⇒ 2002 Feb. 2.43, 14.43, 15.44, 20.43, 20.44, Mar. 7.44, 8.44, 11.44, 13.44, and 20.44: GUIDE 7.0 software [YOS02]. Feb. 2.53: easily visible even at low alt. w/ only a slight DC [PEA]. Feb. 2.75: in 0.31-m L, easily visible as a well-condensed object; also faintly visible in 15×80 B, despite low alt. of only 9° [BOU]. Feb. 3.53: slightly more condensed than previous obs. [PEA]. Feb. 3.73: conspicuous central cond./region [MEY]. Feb. 6.40, 9.40, 10.40, 13.40, 14.40, 18.41, 19.41, 20.41, Mar. 4.41, 6.41, 7.42, 8.42, 9.42, 11.42, 11.43, 13.42, 15.43, 16.43, 19.43, 20.42, 24.41, 25.42, 27.43, 28.41, 30.42, Apr. 1.42, 2.41, 3.80, 4.80, 5.42, 7.80, 12.78, 17.62, 21.74, and 28.45: GUIDE 6.0 software [NAG08]. Feb. 6.42, 24.41, and Mar. 8.43: GUIDE 6.0 software [TSU02]. Feb. 6.44 and 7.41: GUIDE 6.0 software [HAS08]. Feb. 9.41, 24.41, Mar. 3.43, 6.41, 9.41, 9.42, 13.41, 13.42, 16.41, 20.41, 27.42, 30.42, 30.43, Apr. 7.43, 13.76, and 28.50: The Sky ver. 5 software [MIT]. Feb. 12.72: w/ 0.41-m L, tail ~ 0°3 long [RES]. Feb. 13.72: using 0.41-m L, tail ~ 0°4 in p.a. ~ 80° [RES]. Feb. 13.75: comet visible w/o much trouble despite low alt. (7°) and quite bright sky (twilight and light pollution) [GRA04]. Feb. 14.72: comet seen even in bright city sky [RES]. Feb. 14.74: comet only faintly visible in binoculars despite unusually clear and cold weather; comet alt. 10°, solar alt. -12° [DAH]. Feb. 14.76: DC = 7? [SCH04]. Feb. 14.77: w/ 20.3-cm L (95×), central cond. of mag 10.8 [BIV]. Feb. 15.72: using 0.41-m L, faint tail ≈ 0°2 long in p.a. ~ 85° [RES]. Feb. 15.77: comet like a globular cluster; due to twilight and low position (10° above horizon), no hint of tail visible [SCH04]. Feb. 15.77: comet strongly condensed and well visible in twilight, despite presence of small lunar crescent only 7° away; in 25-cm L, short, faint tail visible, roughly pointing E [BOU]. Feb. 16.72: using 0.41-m L, faint tail ≈ 0°1 long in p.a. ~ 80° [RES]. Feb. 16.80: w/ 25.6-cm L (169×), central cond. of mag 10.4 [BIV]. Feb. 17.46 and 18.46: moonlight [MAT08]. Feb. 17.66: rather compact coma has a blue color and is well seen in rising moonlight [SHU]. Feb. 17.79: w/ 25.6-cm L (169×), central cond. of mag 10.8 [BIV]. Feb. 18.40, Mar. 8.44, 9.44, 16.43, 17.42, 19.42, and 25.42: GUIDE 7.0 software [MIY01]. Feb. 19.52: "moonlight starting to have an adverse effect on the sky background; however, comet is quite small and condensed, so it is not suffering too much" [PEA]. Feb. 19.73: major power outage; very windy and cold polar air; using 0.41-m L, tail (0°5 long in p.a. ~ 80°) easily visible [RES].

Feb. 20.43: another tail 5'8 long in p.a. 90° [EZA]. Feb. 20.77: coma appeared compact and of rather high surface brightness, not unlike a planetary nebula; comet well visible despite alt. 6° and astron. twilight [GRA04]. Feb. 21.77: almost starlike in 9×63 B; 9-day-old moon [KAM01]. Feb. 22.52, 23.51, 24.51, 25.51, 26.51, and 27.51: bright moonlight and low alt. [PEA]. Feb. 23.78: alt. only 4°3, but no extinction correction applied, as comparison star HIP 4207 was at same alt. (within 0°1) [GRA04]. Feb. 24.51: coma of high surface brightness [PEA]. Feb. 24.74: moonlight [RES]. Feb. 25.73: moonlight and increasing cirrus [RES]. Feb. 26.74: moonlight; clear break between rain showers [RES]. Feb. 27.51: suitable comparison stars used at similar alt. [PEA]. Feb. 27.74: using 0.41-m L, tail extended 0°5 toward p.a. ~ 80°; full moonrise [RES]. Feb. 28.51: obs. just before moonrise [PEA]. Feb. 28.74: tail 1°0 in p.a. 80°; just before moonrise; small cloud failed naked-eye detection; w/ 41-cm L, tail extended 1°5 [RES]. Feb. 28.75: second tail 0°30 long in p.a. 90° [CER01]. Feb. 28.78: very strong central cond.; gas tail faint, but unambiguously seen [BOU]. Feb. 28.79: w/ 20.3-cm L

[cont. from previous page]

(95×), central cond. of mag 9.4 [BIV].

Mar. 1.50: comet noticeably brighter than previous evenings; obs. before moonrise; faint thin tail 0°5 long in p.a. 76° [PEA]. Mar. 1.74: hazy [RES]. Mar. 1.75 and 3.76: stellar appearance [HOR02]. Mar. 1.78: in 25.4-cm L (58×), strongly condensed coma w/ a distinct bluish-white color; tail > 1° long in p.a. 75° [BOU]. Mar. 1.79 and 2.79: w/ 20.3-cm L (95×), central cond. of mag 9.3 [BIV]. Mar. 2.74: through cirrus, no details seen [RES]. Mar. 2.78: easily seen in 7×50 B as a diffuse star; in 7.0-cm R, an ~ 5'-long jet-like structure was seen in same direction as tail; low alt. (8°) and clouds [GRA04]. Mar. 3.41, Apr. 7.79, 18.79, 19.79, 22.78, and 28.75: GUIDE 7.0 software [WAT01]. Mar. 3.78: tail was quite narrow, innermost ~ 6' was bright; sky rather dark, but comet not seen w/ naked eye; alt. of comet 9°5-8° [GRA04]. Mar. 3.79: slightly diffuse 'star' at alt. 11°; tail immediately visible, despite some light pollution [KAM01]. Mar. 4.78: w/ 9-cm T (39×), coma dia. 4'5, DC = S7/; very dominating false nucleus of mag 6.0, making coma look rather pale; w/ 9×63 B, nearly starlike object at alt. 12°; tail only vaguely visible, due to some haze near horizon [KAM01]. Mar. 4.79: low alt. (8°5) and poor sky (haze and light pollution) [GRA04]. Mar. 4.79: comet was also faintly seen via naked eye [SKI]. Mar. 5.74: measurement uncertain because of strong haze in the city center [SVE01]. Mar. 7.49: "comet obs. in bright twilight, probably one of the last obs. possible" [PEA]. Mar. 7.76, 8.75, and 10.76: "surroundings have a blue color" [LEH]. Mar. 7.78: in 20.0-cm L (42×), coma blue/greenish; 0°5 tail in p.a. 70° [SCH04]. Mar. 7.78: w/ 20.3-cm L (95×), central cond. of mag 9.1 [BIV]. Mar. 7.78: the coma had a clearly greenish-bluish color, and the first 20' of tail easily visible; no extinction correction applied, since the comparison stars were at a similar alt. as the comet; obs. from a park in the city (some light pollution) [DAH]. Mar. 7.79: "an impressive object in 7.0-cm R; coma appeared distinctly blue-green, and inner part of tail was easily visible; the narrow tail could be traced for 3° in 7×50 B; comet also faintly seen via naked eye" [GRA04]. Mar. 7.80: tail straight and easier to see than on Mar. 4.79 [SKI]. Mar. 8.79: w/ 25.6-cm L (84×), central cond. of mag 8.3 [BIV]. Mar. 8.80: comet more diffuse than on previous days, due to the coma being brighter; tail easily visible despite some light pollution near the horizon; w/ 9-cm f/11 T (39×), coma dia. 4'0, DC = S8; extremely dominating, starlike false nucleus [KAM01]. Mar. 9.70: thin tail [SVE01]. Mar. 9.75: "coma well condensed; tail straight, somewhat brighter towards the S edge; visible w/ naked eye" [WAR02]. Mar. 9.78: the coma had a blue-green color; no extinction correction applied, since the comparison stars were at similar alt. as comet; comet seen in gaps between drifting clouds; some light pollution [DAH]. Mar. 9.79: "comet visible w/ naked eye; impressive sight in binoculars" [AND01]. Mar. 9.81: tail bright and narrow near coma, its outer part faint and ≈ 0°5 wide; the beginning of tail somewhat curved (from ≈ 50° to 70°); coma appeared blue-green in 7.0-cm R (24×); comet clearly seen w/ naked eye and was best seen at 7° alt. at the end of astron. twilight; coma and inner tail remained visible in 7×50 B until the comet set below the local horizon at true alt. 2° [GRA04]. Mar. 9.81: tail appeared straight; the comet was not difficult to see w/ naked eye [SKI]. Mar. 9.84: w/ 25.6-cm L (169×), central cond. of mag 9.5 [BIV].

Mar. 10.77: 4° tail in p.a. 70°; comet also visible via naked eye [RES]. Mar. 10.79: w/ 25.6-cm L (42×), central cond. of mag 8.3 [BIV]. Mar. 10.79: fan-shaped coma w/ 5th-mag central cond. on sunward side; easily visible tail w/ the first 45' being bright; tail brighter towards the edges, w/ the W boundary slightly brighter than the E one; w/ 20.3-cm f/10 T (50×), coma dia. 2'3, DC = S8/; very dominating false nucleus in a bright, rather small coma, which opens to a parabola towards the tail; in the inner coma, no further details (such as jets) discernible; very transparent sky [KAM01]. Mar. 11.77: tail in p.a. 75°; due to cirrus clouds, no details visible [RES]. Mar. 11.80: w/ 20.3-cm L (48×), central cond. of mag 7.9 [BIV]. Mar. 12.77: obs. during a break at work, in twilight; first detected at solar alt. -7°5 [GRA04]. Mar. 12.78: the innermost part of the tail was very obvious; comet faintly visible to the naked eye; 'summer' extinction corrections applied due to a slightly hazy sky; some light pollution [DAH]. Mar. 13.80: dominating, starlike false nucleus w/in bright coma; tail of low surface brightness, except near the coma; misty conditions near horizon [KAM01]. Mar. 13.80: "comet an impressive sight in binoculars, showing a bright, straight tail; intensity of tail increased dramatically since last obs., 6 days ago; also easily visible via naked eye" [BOU]. Mar. 13.80: comet seen w/ naked eye w/o much trouble, its tail obvious in 7×50 B [GRA04]. Mar. 13.82: comet appeared as a star w/ naked eye and was seen within the zodiacal light; in 8.0-cm f/5 R (40×), the tail showed knot-like structures near coma [SKI]. Mar. 13.83: GUIDE 7.0 software [WAT01]. Mar. 13.83: GUIDE 7.0 software [TSU02]. Mar. 14.78: the comet was first spotted w/ the naked eye on Mar. 14.77, w/ solar alt. -11°; the head of the comet was a quite-easy, stellar-looking, naked-eye object, but the tail was only faintly visible to the naked eye; in 9×63 B (on Mar. 14.80), the coma had an intensely blue-green color, and the innermost part of the tail had a similar color, although much-less obvious; the innermost 2° of the tail were very obvious in binoculars; cold and very clear sky w/ moderate light pollution [DAH]. Mar. 14.79: "tail straight; well-condensed coma; faintly visible w/ naked eye; obs. plagued by light pollution" [WAR02]. Mar. 14.82: the comet was an easy object w/ naked eye, its defocused mag (coma + inner tail) was 3.5; in 7×50 B, the tail was bright for the first 2°, its outer part was wider and faint; in 25.4-cm f/6 L (76×), several streamers were detected in the inner tail; comet located well within the zodiacal light; the comet was first detected in 25.4-cm f/6 L (218×) at solar alt. -3°7; the comet then showed a starlike nucleus surrounded by an inner coma of ~ 8" [GRA04]. Mar. 15.70: when leaving the coma, the tail has a width of not more than 5'; when lost in the background sky, its width is 16'; color of both tail and coma is bluish; by naked eye, tail seen to ~ 1° from coma [SHU]. Mar. 15.81: "clearly visible to naked eye; w/ 44.5-cm L (62×), very condensed, blue-green coma contained a substellar, ~ 10"-wide core; a slightly irregular tail crossed the whole field-of-view; tail appeared thin with 7× 50 B;" alt. 9° [KAR02]. Mar. 15.82: in 7×50 B, the m_1 was derived by defocusing stars to ~ 5' disks; a further defocusing to ~ 20' gave mag 3.5 (ref YG), but this includes coma plus inner tail; in 7.0-cm R (69×) the tail was notably brighter at its preceding part, and there were hints of streamers near the head; the coma showed an apparently stellar nucleus surrounded by a bright and small central cond.; other coma features were not detected [GRA04]. Mar. 15.82: tail curved slightly at 0°5-1° from coma and was easily seen for 3°; the comet had a bluish hue and showed a notable color contrast w/ the yellow-orange star η Psc [SKI]. Mar. 17.78: tail ~ 2°5 in p.a. 68° [RES]. Mar. 17.80 and 18.79: GUIDE 7.0 software [MIY01]. Mar. 18.78: tail ~ 3°5 in p.a. 65°; comet very easy naked-eye object, w/ tail faintly visible (~ 0°4

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long) [RES]. Mar. 18.80, 20.80, Apr. 3.76, 4.78, 17.60, and 21.76: GUIDE 6.0 software [NAG08]. Mar. 18.81: w/ 20.3-cm L (48 \times), central cond. of mag 7.7 [BIV]. Mar. 19.80: "despite moon and twilight, the comet is impressive in 7 \times 50 B; very intense bluish-white cond.; straight tail with rather sharp N edge and more diffuse, slightly curving S edge" [BOU].

Mar. 20.42, Apr. 12.80, and 13.79: GUIDE 7.0 software [TSU02]. Mar. 20.79: tail \sim 5 $^\circ$ in p.a. 60 $^\circ$; w/ naked eye, tail \sim 0 $^\circ$ 5 long [RES]. Mar. 20.82: GUIDE 7.0 software [YOS02]. Mar. 22.79: 1 $^\circ$ tail in p.a. 60 $^\circ$; bright city background; comet visible by naked eye [RES]. Mar. 22.84 and 27.80: w/ 20.3-cm L (95 \times), central cond. of mag 8.2 [BIV]. Mar. 22.85: hazy sky; comet not seen w/ naked eye [GRA04]. Mar. 22.86: comet also well visible w/ naked eye, its tail seen for 2 $^\circ$; moonlight [SKI]. Mar. 23.81: w/ 20.3-cm L (95 \times), central cond. of mag 8.0 [BIV]. Mar. 23.82: an easy naked-eye object; tail also clearly seen; w/ 7 \times 50 B, the coma appeared blue-green and the tail curved somewhat in anti-clockwise direction, its outer part was \approx 0 $^\circ$ 5 wide; comet much more prominent than M31; total mag of coma and inner tail brighter than 3.0; in 7.0-cm R (69 \times), hints of streamers in the inner tail, and an apparently stellar nucleus was surrounded by a very bright central cond. [GRA04]. Mar. 23.85: "coma very condensed; tail straight; obs. made between scattered clouds in strong light pollution and bright moonlight; still, the comet is a magnificent sight!" [WAR02]. Mar. 23.86: in 7 \times 50 B the tail was seen for 4 $^\circ$ in p.a. 50 $^\circ$; comet and tail clearly visible w/ naked eye; clear sky and moonlight [SKI]. Mar. 24.17: first morning obs. in a very bright sky (sun 8 $^\circ$ below horizon) at 6 $^\circ$ 5 alt.; comet only faintly seen in 7 \times 50 B as a diffuse star [GRA04]. Mar. 24.80: "comet visible with naked eye; impressive sight in binoculars" [AND01]. Mar. 24.81: comet also faintly seen via naked eye, despite bright moonlight and thin cirrus [BOU]. Mar. 24.81: w/ 20.3-cm L (95 \times), central cond. of mag 6.8 [BIV]. Mar. 24.82: w/ 15.2-cm L (107 \times), coma was clearly blue-green in color, no inner-coma features detected except for the false nucleus and the bright central cond.; the tail appeared to originate from the W part of coma; comet not seen via naked eye due to haze/high clouds [GRA04]. Mar. 25.81: strongly condensed, bright coma; tail \perp to horizon, w/ greater apex angle than on the days before; central cond. of mag 4.5; w/ 20-cm T (50 \times), starlike false nucleus of mag 5.0; no further details visible at 161 \times ; moon brightened the sky background considerably [KAM01]. Mar. 26.82: comet faintly seen w/ naked eye; some cloud interference and full Moon [GRA04]. Mar. 26.84: comparison stars μ And, ν And, τ Psc; comet low [RIB]. Mar. 26.85: comparison stars μ And, ν And, τ Psc; comet low; sky a little foggy [COR01]. Mar. 27.44, 30.44, Apr. 13.79, and 25.75: GUIDE 8.0 software [YOS02]. Mar. 27.45: Megastar 3.0 software [OHM]. Mar. 27.80: again naked-eye visibility; w/ 25-cm T, a brighter and compact inner coma was visible, and also a fainter, outer one; the inner coma appeared to have sharp edges, but the outer coma showed a somewhat brighter region toward the SE [HOE]. Mar. 28.78 and 28.79: moonlight [HOR02]. Mar. 28.81: comet appeared much brighter than M31 and was clearly visible w/ naked eye, despite interference from twilight, Moon, and clouds [GRA04]. Mar. 28.82: coma very condensed with disk-like central cond., turquoise in color; tail straight; strong moonlight [WAR02]. Mar. 29.16: morning obs. in strong twilight, clouds prevented earlier obs. [GRA04]. Mar. 29.81: "visible w/ unaided eye; looks like a miniature comet C/1996 B2 in binoculars; very bright central cond.; parabola-like coma; tail opened as wide as on Mar. 25.81; W part seemed to be a little brighter than E part (streamer?); w/ 20-cm T (50 \times , 161 \times), very bright starlike false nucleus, but no further details visible" [KAM01]. Mar. 29.81: w/ 25.6-cm L (169 \times), central cond. of mag 8.0 [BIV]. Mar. 29.82: "comet easily visible to naked eye, being somewhat brighter than α Tri, despite a near-full moon low over the E horizon; in 7 \times 50 B, coma is becoming less condensed, and the tail is not as intense anymore as it was a week ago" [BOU]. Mar. 29.83: "the tail curved \approx 10 $^\circ$ in anti-clockwise direction — its W part was quite sharply defined (apparently the gas component), while its E part (dust tail?) was more diffuse; comet clearly visible to naked eye despite interference from clouds, mist, and Moon" [GRA04]. Mar. 30.88: strong color contrast w/ nearby β And; very hazy; comet not visible w/ naked eye [GRA04]. Mar. 31.83: coma very condensed; tail straight; in 45-cm L (100 \times), inner coma very diffuse w/ a round diffuse central cond.; haze at horizon made m_1 estimate uncertain; scattered cirrus [WAR02].

Apr. 1.82: "coma and brighter part of tail visible w/ unaided eye; again, comet looked like a miniature comet C/1996 B2 in binoculars, displaying a central cond. of mag 3.7 w/in its strongly condensed, parabola-like coma; tail (not as opened as on previous days) easily visible for \sim 2 $^\circ$ 5, becoming more difficult for the next 1 $^\circ$ 5; the brighter part of the tail showed a uniform surface brightness, but seemed more ray-like w/in the faint part; w/ 20-cm T (50 \times , 161 \times), no details except the extraordinarily bright, starlike false nucleus; obs. made at elevation 900 m" [KAM01]. Apr. 2.81: greenish coma [MEY]. Apr. 3.18 and 4.81: w/ 20.3-cm L (95 \times), central cond. of mag 8.4 [BIV]. Apr. 3.79, 4.79, 7.79, 12.79, and 28.43: GUIDE 6.0 software [NAG08]. Apr. 3.81 and 4.17: w/ 20.3-cm L (95 \times), central cond. of mag 8.3 [BIV]. Apr. 3.82 and 4.82: blue-greenish coma [SCH04]. Apr. 3.84: W edge of tail appeared sharply defined; comet not seen via naked eye due to strong haze [SKI]. Apr. 3.85: coma appeared more diffuse and tail less prominent than before, but comet was still considerably brighter than nearby M31; obs. affected from haze/mist and local light sources (M31 was only faintly seen in 7 \times 50 B), although conditions were not too bad near zenith [GRA04]. Apr. 4.80: tail 3 $^\circ$ 0 long in p.a. 19 $^\circ$ [HAS02]. Apr. 4.82: GUIDE 7.0 software [TSU02]. Apr. 4.83: "comet impressive to the naked eye, w/ two tails clearly visible; in 7 \times 50 B, the gas tail can be followed for at least 6 $^\circ$ 5, w/ a 4 $^\circ$ 2 dust tail slightly curving away to the E, the end being at p.a. \sim 20 $^\circ$ as seen from the head of the comet" [BOU]. Apr. 4.84: dust tail \sim 3 $^\circ$ long [COM]. Apr. 5.82: dust tail \sim 1 $^\circ$ long in p.a. 5 $^\circ$ [BUS01]. Apr. 5.84: coma and tail significantly fainter than four evenings ago, w/ tail length not affected as much; w/ 20-cm T (50 \times , 161 \times), bright starlike false nucleus; obs. at elevation of 900 m [KAM01]. Apr. 5.85: "comet visible w/ naked eye; central cond. of dia. 2 $^\circ$ 0; grand sight in binoculars — the best comet in years; the tail is pale blue in color, and the head is yellowish" [AND01]. Apr. 5.86: "appeared slightly brighter than β Tri; tail straight and reaching up to \circ Cas; comet easily brighter than M31, which was nicely situated 2 $^\circ$ 7 below it, and the tail pointed exactly away from M31 — beautiful!; some streamers were seen along the E side of the tail; w/ 7 \times 50 B, coma dia. 6', DC = 7" [KAR02]. Apr. 5.89: "coma very condensed; tail straight, sharpest along the W border w/ faint streamers visible near coma; within \sim 2 $^\circ$ of coma, a faint, diffuse glow extended E of gas tail — in effect widening

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the innermost tail; in 11x80 B, the innermost coma was pale blue; w/ 22-cm L (50x), the central cond. was light blue, turning into a dirty yellow-green-brown hue throughout the coma and inner tail" [WAR02]. Apr. 5.89: the bluish color of coma was clearly seen, and both the narrow and sharply defined gas tail and the broader and more-diffuse dust tail were visible, the latter curved slightly towards E; the comet was easily seen via naked eye in a fairly transparent sky [GRA04]. Apr. 6.14: w/ 25.6-cm L (169x), central cond. of mag 9.1 [BIV]. Apr. 6.86: w/ 7x50 B, comet prominent, much brighter than nearby M31; intensity of tail equal to or brighter than the central part of M31 for 3° (it curved slightly near coma); the outermost part of tail was faint, but the sky immediately E of it appeared notably darker; an excessive defocusing w/ naked eye gave mag 3.0 (coma + inner tail); both the comet and M31 were easily seen via naked eye [GRA04]. Apr. 7.14: 6° ion tail in p.a. 0° and 3° dust tail in p.a. 10° (naked eye; dark site) [BIV]. Apr. 8.13: dust tail ~ 1° long in p.a. 10° w/ 15x80 B [SCH04]. Apr. 8.18: w/ 20.3-cm L (95x), central cond. of mag 8.8 [BIV]. Apr. 8.82: w/ 20.3-cm L (95x), central cond. of mag 8.7 [BIV]. Apr. 8.84: medium light pollution at the position of comet; w/ 20-cm T (77x, 161x), false nucleus no longer dominating the coma — it is instead replaced by a tiny, very bright central cond. [KAM01]. Apr. 9.87: clear weather, but slightly hazy [WAR02]. Apr. 9.88: distinct coma with round central cond. of size 1.5; tail straight, w/ the W edge better defined; clear, but slightly hazy [WAR02].

Apr. 10.14: w/ 20.3-cm L (95x), central cond. of mag 8.9 [BIV]. Apr. 10.85: w/ 20.3-cm L (95x), central cond. of mag 9.6 [BIV]. Apr. 11.14: w/ 20.3-cm L (95x), central cond. of mag 9.4 [BIV]. Apr. 11.85: "central cond. of dia. 2.0; comet visible w/ naked eye; hazy sky, but comet still a fine object" [AND01]. Apr. 12.18: w/ 25.6-cm L (169x), central cond. of mag 9.0 [BIV]. Apr. 13.73: GUIDE 8.0 software [YOS02]. Apr. 13.81 and 28.44: The Sky ver. 5 software [MIT]. Apr. 13.82: GUIDE 8.0 software [YOS02]. Apr. 13.89: w/ 25.6-cm L (169x), central cond. of mag 10.4 [BIV]. Apr. 16.14: w/ 25.6-cm L (169x), central cond. of mag 10.6 [BIV]. Apr. 16.84: clear, bright sky due to humidity and light pollution [WAR02]. Apr. 20.00: the tail was much fainter than the coma; comet faint to naked eye in a hazy sky [GRA04]. Apr. 21.02: easily seen w/ naked eye as a diffuse spot; tail near coma was moderately bright, otherwise faint (first-quarter Moon and astron. twilight) [GRA04]. Apr. 22.12: round diffuse coma with brighter center; small central cond.; tail straight; first-quarter moon, slightly hazy [WAR02]. Apr. 22.86: urban sky; central cond. of dia. 2.5 [AND01]. Apr. 22.92: moonlight; visible by naked eye; tail ~ 1° [RES]. Apr. 23.99: despite some cloud interference and an 11-day-old Moon, comet clearly visible to naked eye and its moderately narrow tail not too hard to see in 7x50 B [GRA04]. Apr. 25.03: "comet still not difficult to see w/ naked eye, in spite of a nearly full Moon; a clear and transparent sky certainly helps!" [GRA04]. Apr. 25.85: urban sky; comet visible in a gap in clouds; round coma w/ central cond., no tail visible [AND01]. Apr. 28.89: coma diffuse and round with small central cond.; tail faint, diffuse, straight; comet seen w/ naked eye in urban sky [WAR02]. Apr. 28.89: urban sky; clear weather; round coma with central cond. [AND01]. Apr. 29.87: comet still well condensed, but tail has become very faint [BOU]. Apr. 29.94: comet still easy naked-eye object; moonrise; excellent conditions [RES].

◊ *Comet C/1999 U4 (Catalina-Skiff)* ⇒ 2002 Feb. 5.10: limiting mag 15.5 (81x); second confirming detection made at Feb. 5.17 [LEH]. Feb. 15.10: limiting mag 16.0 (81x); second confirming detection made at Feb. 15.17 [LEH]. Feb. 16.10: limiting mag 16.0 (81x); second confirming detection made at Feb. 16.17 [LEH]. Mar. 4.80, 8.83, 10.83, 11.88, and 12.93: limiting mag ~ 16 (162x) [LEH]. Mar. 4.80: second confirming detection made at Mar. 4.89 [LEH]. Mar. 5.80: limiting mag 15.5 (162x); second confirming detection made at Mar. 5.89 [LEH]. Mar. 8.83: second confirming detection made at Mar. 8.96 [LEH]. Mar. 10.83: second confirming detection made at Mar. 10.96 [LEH]. Mar. 11.88: second confirming detection made at Mar. 11.96 [LEH]. Mar. 12.93: second confirming detection made at Mar. 13.01 [LEH].

◊ *Comet C/2000 SV₇₄ (LINEAR)* ⇒ 2002 Jan. 4.74: limiting mag 15.0 (81x); second confirming detection made at Jan. 4.87 [LEH]. Jan. 22.71: limiting mag 15.0 (81x); second confirming detection made at Jan. 22.83 [LEH]. Feb. 3.82: limiting mag 15.8 (81x); second confirming detection made at Feb. 3.91 [LEH]. Feb. 4.82: limiting mag 15.8 (81x); second confirming detection made at Feb. 4.91 [LEH]. Feb. 14.77: limiting mag 16: (81x); second confirming detection made at Feb. 14.96 [LEH]. Feb. 14.90 and 15.87: comp. stars from Henden photometry as given on AAVSO 'd' chart [BOU]. Feb. 15.77: limiting mag 16: (81x); second confirming detection made at Feb. 15.96 [LEH]. Feb. 19.73: major power outage; very windy and cold polar air [RES]. Mar. 4.76: limiting mag 15.5 (81x); second confirming detection made at Mar. 4.84 [LEH]. Mar. 5.76: limiting mag 15 (81x); second confirming detection made at Mar. 5.84 [LEH]. Mar. 8.79: limiting mag 16: (81x); second confirming detection made at Mar. 8.90 [LEH]. Mar. 10.79: limiting mag 16: (81x); second confirming detection made at Mar. 10.90 [LEH]. Mar. 11.79: limiting mag 16: (81x); second confirming detection made at Mar. 11.84 [LEH]. Mar. 12.78: limiting mag 16: (81x); second confirming detection made at Mar. 12.83 [LEH]. Apr. 2.79: limiting mag 15: (81x); second confirming detection made at Apr. 2.85 [LEH]. Apr. 4.82: limiting mag 14.5: (42x); second confirming detection made at Apr. 4.89 [LEH]. Apr. 30.86: limiting mag 14.4: (42x); second confirming detection made at Apr. 30.94 [LEH].

◊ *Comet C/2000 WM₁ (LINEAR)* ⇒ 2001 Oct. 26.08: Tycho-II comparison stars; coma elongated 2' in p.a. 255° [BEG01]. Oct. 27.07: slightly hazy [BEG01]. Nov. 3.74: faint, diffuse object, condensed towards center; w/ 20-cm T (161x), starlike false nucleus of mag 12; moderate light pollution [KAM01]. Nov. 7.91: comet still very faint at 23° alt.; extension to coma in p.a. 220° [BEG01]. Nov. 15.91: condensed coma surprisingly bright and large; w/ 12.5-cm T (139x), starlike false nucleus of mag 11.5 [KAM01]. Nov. 20.85: w/ 8.0-cm f/6 M (20x), coma dia. 9' [RZE]. Nov. 21.89: coma elongated in p.a. 260°; "I cannot recall having to use the VSS method on a comet so bright and condensed, and yet the outer coma is so faint and extensive — one has to be fully dark-adapted or else much of the outer coma is lost, then comes the difficulty of defocusing the comparison stars enough to match the full extent of the coma; I tried the Morris method and lost much of the outer coma when defocusing even slightly (using this method, the comparison stars are not

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defocused enough, one is really working on $\sim 2/3$ of the coma, and a too faint estimate is the result); using methods 'S' and 'M', I was consistently getting about a mag fainter w/ 'M'; after using method 'M' for 18 years, I am sure this is a peculiarity of this comet" [BEG01]. Nov. 21.92: large, round, condensed object; w/ 12.5-cm T (139 \times), starlike false nucleus of mag 11.0 [KAM01]. Nov. 22.05: bright and easy in binoculars, quite diffuse; w/ 20-cm L, sharp point in center w/ $m_2 = 9.5$; coma definitely not circular and possible hint of broad tail despite bright moonlight [COO02]. Nov. 24.96: in bright moonlight coma now displays a bright stellar cond.; outer coma and extension washed out [BEG01]. Nov. 25.84: conditions very clear; coma appears as a large spherical cloud, brightening quickly towards the center; a faint stellar central point was visible; in 15-cm $f/7$ L, there is a sharp central point, $m_2 = 8.0$, surrounded by a dense cloud $\sim 40''$ across; large outer coma fading into a broad fan-shaped dust tail $\sim 20'$ long [BEG01].

Dec. 2.83: coma elongated into broad fan $\sim 30'$ long in p.a. 350° ; cloud cleared briefly; bright moonlight [BEG01]. Dec. 4.78: quick obs. between clouds [COO02]. Dec. 7.45: GUIDE 6.0 software [HAS08]. Dec. 7.81: misty conditions; comet appeared as a large, low-contrast object [KAM01]. Dec. 8.72: coma possibly elliptical w/ greatest axis oriented NE-SW [KAM01]. Dec. 9.79: condensed coma, possibly elliptical (orientation of greatest axis NE-SW), fainter and smaller than on Dec. 8.72; faint, broad tail; w/ 9-cm T (111 \times), starlike false nucleus of mag 10.5 [KAM01]. Dec. 12.74: coma large and highly condensed towards the center w/ a stellar central cond.; tail is broad and strongly curved in p.a. 35° near the coma, p.a. 20° at midpoint, and p.a. 5° at visible end [BEG01]. Dec. 13.82: bright core still prominent in 40-cm L, but less sharp than before; largish, very diffuse outer coma [COO02]. Dec. 15.77: sky hazy after yet another rain storm; tail not evident; in 40-cm L, bright core very prominent but becoming more diffuse, less sharp; outer coma around core very diffuse [COO02]. Dec. 17.88: conditions hazy, no tail visible [BEG01]. Dec. 19.74: tail appears more sharply pronounced on its N edge; in 15-cm $f/7$ L, the central cond. consists of a star-like central point ($m_2 \sim 11.0$), surrounded by a dense, bright, teardrop-shaped cloud that has a faint 'spike' leading into the tail; the tail itself is strongly curved, but centered in p.a. 55° ; an extremely faint 'fan' of material appears to extend out in front of the coma, opposite to the tail centered at p.a. $\sim 235^\circ$; this feature was extremely diffuse and was best seen by 'washing' the crosshairs in the eyepiece back and forth, allowing the feature to 'backlight' the crosshairs [BEG01]. Dec. 20.74: telescopic examination seems to confirm the faint fan-like feature centered on p.a. 235° , although moonlight is now making its effect apparent [BEG01]. Dec. 22.74: in binoculars, comet appears definitely smaller; tail difficult in moonlight, perhaps short spike visible; in 40-cm L, bright core visible, brighter than before ($m_2 = 8$), but again larger and less sharp than before; DC = 4/; probable short spike leading into more diffuse tail, but not easy in light of first-quarter moon [COO02]. Dec. 24.78: clearest conditions so far, but moon becoming bright; in binoculars, small compact coma, no sign of tail; in 40-cm L, 'spurious' outer coma (far outer coma probably lost in moonlight, leading to it looking smaller than previously); very definite sharp point at center, surrounded by dense, small halo; DC = 6 if far outer coma neglected, otherwise DC = 4 [Ed. note: DC should not change when regarding or neglecting outer coma — it is how condensed the comet appears]; definite evidence of slightly curved tail, but measurement difficult in moonlight [COO02]. Dec. 25.53: central cond. has attained a higher degree of intensity evident, even in small binoculars [PEA]. Dec. 28.79: bright moon, but clear; in binoculars, coma appears much smaller and more condensed, probably due to moonlight washing out outer coma; in 40-cm L, bright central point; despite moonlight, tail can be discerned in binoculars and 40-cm L — in the latter slightly curved and showing a bright spike leading from the inner coma into the first part of tail [COO02]. Dec. 31.74: obs. before moonrise; some high cirrus moved in during obs.; in 40-cm L, bright inner coma, punctuated by bright point of $m_2 = 8.0$; largish, 'spurious' outer coma; there is a bright elongation or short tail appearing as a narrow ellipse at p.a. 98° ; main tail appears as a broadish fan, slightly curved, and most evident for $20'$ in p.a. 103° [COO02].

2002 Jan. 1.76: coma is now much smaller and very condensed; tail exceedingly faint and narrow [BEG01]. Jan. 2.75: in 15-cm $f/7$ L (50 \times), an elongated coma leads into a bright $16'$ thin tail in p.a. 97° , w/ another faint, broad (dust) tail in p.a. 58° [BEG01]. Jan. 4.43: bright teardrop-shaped part of tail extends perhaps 0.4° ; fainter thin spine extends up to 1.5 in p.a. $\approx 76^\circ$; coma has starlike center [RAE]. Jan. 4.73: "a spectacular sight in the 15-cm $f/7$ L (50 \times); the coma consists of a dense bright central cond. w/ a sunward plume of material centered on p.a. 260° ; this then flows back into the first part of a bright (plasma?) tail that fades out slowly in p.a. 102° but was traced $40'$ from the coma"; a broad faint (dust) component appears as a fan centered on p.a. 50° , traceable to $\approx 8'$ [BEG01]. Jan. 6.53: first $15'$ of tail is of high surface brightness [PEA]. Jan. 6.75: slightly hazy conditions [BEG01]. Jan. 6.76: first obs. after cloudy period, still hazy; tail visible in binoculars, but not easy in hazy sky; coma appears bright, small and sharper; in 40-cm L (72 \times), bright inner coma w/ sharp central point, surrounded by much larger, 'spurious' outer coma, which is not seen obviously in binoculars; DC = 3-4; tail definite, narrow, appearing as an $\approx 20'$ sharp spike near the inner coma [COO02]. Jan. 7.40: "w/ 8 \times 21 B, tail certain up to 2° and appeared to be visible up to 3° , but difficult to tell how much of this was real and how much was trick of the mind; w/ 15-cm L (30 \times), thin tail is distinctly visible for 1.5 at 90° ; under darker sky tonight, more faint outer coma visible; DC has definitely decreased since Jan. 4" [RAE]. Jan. 9.51: w/ 25 \times 100 B, ion tail > 1.5 long has increased in intensity [MAT08]. Jan. 9.76: w/ 30-cm $f/10$ C, $m_1 = 5.5$ (MM = S, ref = S); DC = 6/; short, wide, spurious tail, $\sim 9'$ long; $7'$ coma round w/ distinct core, which is not stellar in appearance [Magda Streicher, Pietersburg, South Africa]. Jan. 12.74: a difficult obs.; comet seen for ~ 5 min between clouds, w/ some haze; coma very close to μ Ind, making m_1 estimate difficult; no tail seen in limited time [BEG01]. Jan. 18.74: comet low, but sky clear, w/ crescent moon; in binoculars, coma small and sharp — looks like a star in haze; in 20-cm L (64 \times), small-but-bright inner coma w/ bright, very prominent central point; previous faint outer coma now mainly invisible; definite narrow tail of $20'$ [COO02]. Jan. 26.81: difficult obs. — comet located only $1'$ from 6th-mag star [PEA]. Jan. 27.85: "comet has clearly undergone a significant brightness increase in the last 24 hr or so; surface brightness of the coma has increased significantly; faintly visible to the naked eye, even at only 10° alt.; I suspected something may be up the previous morning, but the obs. was hampered w/ the comet only $1'$ away from a 6th-mag star; quick exam. of the

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comet through a 20-cm L (90×) revealed an intense central cond. that appeared distinctly non-stellar; no evidence of any split (however, the telescope probably lacked the degree of resolution required to confirm this)" [PEA]. Jan. 29.78: appears starlike to the eye; 25×100 B reveal two jets — the brighter jet is 60" long in p.a. 250°, while the fainter jet is 25" long in p.a. 120°; moonlight [MAT08]. Jan. 30.78: w/ 25×100 B, coma dia. 2.5; the two bright jets obs. the previous morning have now developed into the classic parabolic shape seen in drawings of the past; the tail is more prominent now, arching over 2° in length; w/ 28-cm L (84×), the jets are separated by a 'dark lane'; moonlight; comet at alt. 13°, comp. stars at alt. 9°-13° [MAT08]. Jan. 30.85: quick exam. of the comet through a 20-cm L (90×) shows a strong parabolic outline w/ the central cond. at the focus of this parabola; a starlike false nucleus is now clearly visible at the center of the central cond.; the comet has a distinct yellowish-brown hue that is clearly evident even in small binoculars; broad tail 1.5 long visible in p.a. 196° (first 0.5 is of high surface brightness) [PEA]. Jan. 31.78: w/ 25×100 B, coma dia. 4.0; jets now developed into parabolic dust hood 11' long in p.a. 200°; tail > 2°; moonlight [MAT08]. Jan. 31.85: "slight fading since yesterday morning; bright moonlight is taking its toll on the obs. of the tail; all estimates have been corrected for extinction, though this is minor (as comparison stars in Sgr are conveniently placed)" [PEA].

Feb. 1.31 and 3.30: ref. stars β_1 Sgr and β_2 Sgr; moonlight [MAN04]. Feb. 1.31: coma large and highly condensed towards the center w/ a stellar central cond.; tail is broad and strongly curved [MAN04]. Feb. 2.85: "comet appears very similar in binoculars to an image taken by Gordon Garrard (and posted on his web page [though at press time, it could not be accessed - Ed.]); there is a sharp parabolic outline, and the tail appears more prominent this morning despite the moonlight" [PEA]. Feb. 3.84: 'dark' spine clearly evident down the middle of the tail; starlike false nucleus visible in central cond. through 20-cm L [PEA]. Feb. 4.78: w/ 7×50 B, V-shaped coma of dia. 4', and now a well-developed dust tail > 2° long in p.a. 215°; moonlight [MAT08]. Feb. 5.78: moonlight [MAT08]. Feb. 5.84: coma and immediate area of the tail has taken on a triangular outline, very similar visually to Michael Mattiazzo's CCD image at this time; strikingly different from the parabolic outline previously [PEA]. Feb. 6.78: w/ 7×50 B, coma dia. 4'; dust tail > 2.5 in p.a. 220°; moonlight [MAT08]. Feb. 7.78: w/ 7×50 B, coma dia. 4', dust tail > 3°; moonlight [MAT08]. Feb. 7.84: comet appears distinctly non-stellar now w/ the naked eye [PEA]. Feb. 10.78: w/ 7×50 B, dust tail > 3.3 in p.a. 222° [MAT08]. Feb. 16.85: tail strongly curved S; p.a. estimate is based on direction of first 0.5 of tail; coma is taking on more of a circular outline rather than elongated or parabolic; examination through 20-cm L and 41-cm L reveals a bright central cond.; however, no starlike false nucleus visible [PEA]. Feb. 19.85, 20.85, 20.86, Mar. 6.83, 7.83, 9.82, 11.82, 18.80, 20.81, Apr. 3.75, 4.77, 7.78, 12.78, 17.63, and 21.77: GUIDE 6.0 software [NAG08]. Feb. 26.83: broad tail 0.3 long in p.a. 240 deg; obs. of tail affected by bright moonlit sky [PEA].

Mar. 3.83, 11.83, 20.81, 25.81, Apr. 1.82, and 7.81: GUIDE 7.0 software [WAT01]. Mar. 3.84: 6th-mag field star located in line w/ the tail, which may have affected obs. length of tail; broad tail 0.3 long in p.a. 224°; moonlit sky [PEA]. Mar. 4.20: comet only 7° above horizon; not visible in binoculars due to moon's interference; w/ 20-cm T (50×), condensed object; no tail visible due to rather bright background [KAM01]. Mar. 4.84: moonlit sky; broad tail 0.25 long in p.a. 227 deg; bright sky seriously affected obs. of tail [PEA]. Mar. 11.17: comet only 12° above horizon; comet shows central cond., but no false nucleus brighter than mag 13 (161×); short, broad tail visible; comet also visible in 9×63 B [KAM01]. Mar. 13.84: a CCD frame shows a broad dust tail in p.a. 200°-250° (> 10'); GUIDE 7.0 software [TSU02]. Mar. 14.15: "not difficult to see despite low alt. and astron. twilight; my first post-conjunction obs." [GRA04]. Mar. 17.81 and 18.80: GUIDE 7.0 software [MIY01]. Mar. 21.15: twilight [GRA04]. Mar. 23.14: broad, diffuse dust tail [BOU]. Mar. 23.84: "zodiacal light very bright; comet still displays a 1.3-long, broad tail in p.a. 237°, in a dark sky; this is somewhat unusual considering the faintness of the comet now" [PEA]. Mar. 24.12: visible w/o difficulty [GRA04]. Mar. 30.12: moonlight [RES]. Apr. 6.12: some interference from nearby star of mag 7.1 [BOU]. Apr. 13.76: GUIDE 8.0 software [YOS02]. Apr. 22.98: comet near bright star; moonlight [RES]. Apr. 29.95: moonrise [RES]. Apr. 30.97: very near bright star [RES].

◇ Comet C/2001 A2 (LINEAR) ⇒ 2001 Aug. 14.89: very diffuse coma, possibly elliptical (greatest axis oriented towards p.a. 20°); at 242×, a knot of material w/ dia. 20" and mag ~ 12.5 visible at center, which contained a starlike false nucleus of mag 13.5 [KAM01]. Aug. 15.90: coma considerably fainter and more diffuse than the night before; at 242×, a knot of material w/ dia. 30" visible at center, containing a starlike false nucleus of mag 14.0 [KAM01].

◇ Comet C/2001 HT₅₀ (LINEAR-NEAT) ⇒ 2002 Mar. 18.88: "confirmation by other observers needed; conditions above S horizon not the best, but faint, diffuse object at correct position (from ICQ/MPC website ephemeris) [RES]. Mar. 19.99: "last night's object moving; much better conditions than yesterday; MPC elements (from ICQ/MPC webpage ephemeris)" [RES].

◇ Comet C/2001 K5 (LINEAR) ⇒ 2002 Mar. 25.86: "confirming obs. from previous morning; distinct diffuse patch, albeit very faint, just seen w/ direct vision" [PEA].

◇ Comet C/2001 MD₇ (LINEAR) ⇒ 2002 Feb. 3.76, 4.76, 14.76, and 15.76: limiting mag 15.5 (81×) [LEH]. Feb. 3.76: second confirming detection made at Feb. 3.80 [LEH]. Feb. 4.76: second confirming detection made at Feb. 4.80 [LEH]. Feb. 14.76: second confirming detection made at Feb. 14.92 [LEH]. Feb. 15.76: second confirming detection made at Feb. 15.92 [LEH]. Mar. 2.77: faint, diffuse object [RES].

◇ Comet C/2001 N2 (LINEAR) ⇒ 2002 Mar. 21.08: comet not definitely seen; group of six nearby stars [RES].

◇ Comet C/2001 OG₁₀₈ (LONEOS) ⇒ 2002 Feb. 18.85 and 20.84: GUIDE 7.0 software [YOS02]. Feb. 21.17: diffuse coma [GRA04]. Feb. 24.84: GUIDE 6.0 software [TSU02]. Feb. 27.74: full moonrise; comet visible even w/ bright sky background [RES]. Feb. 28.74: just before moonrise [RES]. Mar. 5.11: within 1° of SS Cyg; mag ref for this and

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subsequent obs. is VT using Tycho-2 comparison stars w/ $B-V < +1.0$ [GRA04]. Mar. 7.80: barely visible, but detected at the correct location; slightly easier w/ 69 \times ; located near W Cyg; alt. 20° [GRA04]. Mar. 8.17: easier to see than on Mar. 7.81 (a brighter sky was more than offset by a larger instrument) [GRA04]. Mar. 8.19: w/ 20.3-cm L (95 \times), central cond. of mag 14.2 [BIV]. Mar. 10.19: w/ 25.6-cm L (169 \times), central cond. of mag 13.8 [BIV]. Mar. 14.14: comet close to star [HOR02]. Mar. 14.16: observed in astron. twilight [GRA04]. Mar. 15.82: "coma appeared slightly elongated in NW-SE direction; comet at perihelion today" [KAR02]. Mar. 20.82, Apr. 3.74, 4.79, 12.77, and 17.59: GUIDE 6.0 software [NAG08]. Mar. 21.12: comet appeared more diffuse than previously [GRA04]. Mar. 30.10 and Apr. 22.92: moonlight [RES]. Apr. 5.85: easy object in 20-cm T; coma very diffuse and of rather low surface brightness, perhaps slightly elliptical; no false nucleus brighter than mag 13; obs. at elevation of 900 m [KAM01]. Apr. 6.07: w/ 25.6-cm L (169 \times), central cond. of mag 14.2 [BIV]. Apr. 7.50: The Sky ver. 5 software [MIT]. Apr. 8.85: due to slight haze, the sky background was brightened to some degree; very diffuse, perhaps elliptical (major axis NE-SW) coma [KAM01]. Apr. 13.93: w/ 25.6-cm L (169 \times), central cond. of mag 14.8 [BIV]. Apr. 29.94: moonrise; excellent conditions [RES].

◊ *Comet P/2001 Q6 (NEAT)* \Rightarrow 2002 Jan. 13.77: very difficult, diffuse object; obs. hampered by nearby 13th- and 14th-mag stars [BOU].

◊ *Comet P/2001 TU₈₀ (LINEAR-NEAT)* \Rightarrow 2002 Feb. 2.88: very difficult, small diffuse object; identity established by detection of (slow) motion after 1 hr, away from nearby star of mag 14.8 (orbital elements from MPC 44183; position afterwards checked with new elements from MPC 44504) [BOU]. Feb. 12.77: very clear and windy; object movement confirmed during second obs. at Feb. 12.84; orbital elements from MPC 44504 (chart via Guide 7 w/ USNO-A2.0 and GSC-2.2 stars; comparison mags from AAVSO chart for nearby AT Cnc) [RES]. Feb. 13.77: very clear; object movement confirmed during second obs. at Feb. 13.90; orbital elements from MPC 44504; chart via Guide 7 software w/ USNO-A2.0 and GSC-2.2 stars; comparisons from AAVSO chart for nearby AT Cnc [RES]. Feb. 15.81: comet not seen; conditions similar to time of previous positive obs. [RES].

◊ *Comet C/2001 X1 (LINEAR)* \Rightarrow 2002 Jan. 21.81: motion fairly obvious in only 15 min or so [PEA].

◊ *Comet C/2002 E2 (Snyder-Murakami)* \Rightarrow 2002 Mar. 13.83: GUIDE 7.0 software [WAT01]. Mar. 13.83: GUIDE 7.0 software [TSU02]. Mar. 14.12: this comet was faintly visible in 7.0-cm R, but a rather easy object in 25.4-cm L [GRA04]. Mar. 15.10: tail was broad and faint [GRA04]. Mar. 17.80 and 18.79: GUIDE 7.0 software [MIY01]. Mar. 18.80, 20.80, Apr. 3.76, 4.78, 17.60, and 21.76: GUIDE 6.0 software [NAG08]. Mar. 20.82: GUIDE 7.0 software [YOS02]. Mar. 21.14: comet only barely visible [GRA04]. Mar. 30.11: moonlight [RES]. Apr. 13.73: GUIDE 8.0 software [YOS02]. Apr. 22.98: moonlight [RES]. Apr. 29.96: moonrise; excellent conditions [RES].

◊ *Comet C/2002 F1 (Utsunomiya)* \Rightarrow 2002 Mar. 21.10: beginning of morning twilight; comet not far from ϵ Peg, between small clouds that sometimes crossed field [RES]. Mar. 23.15: comet fairly well visible, despite low alt. of only 8° [BOU]. Mar. 23.89: comet clearly visible and appeared to be very condensed w/ a prominent central cond.; at higher power (100 \times), starlike false nucleus very evident [PEA]. Mar. 24.15: difficult obs. due to twilight (sun 12° below horizon) and low alt.; weak and apparently diffuse source was seen near the ephemeris position [GRA04]. Mar. 29.14: still a challenging object, but slightly easier than on Mar. 24.15; twilight and Moon [GRA04]. Mar. 30.14: coma elongated on p.a. \sim 170°; easy object; moonlight [RES]. Mar. 30.14, 31.13, and Apr. 3.13: moonlight [HOR02]. Apr. 3.79, 4.79, 7.79, 12.79, and 28.43: GUIDE 6.0 software [NAG08]. Apr. 4.82: GUIDE 7.0 software [TSU02]. Apr. 5.14: comet small and strongly condensed; short, broad tail [BOU]. Apr. 5.16: w/ 20.3-cm L (95 \times), central cond. of mag 10.4 [BIV]. Apr. 6.09: much easier to see than before despite low alt. and interference from nearby road lights; tail was faint and p.a. approximate [GRA04]. Apr. 6.11: faint, but not to difficult w/ this instrument despite twilight; viewed from a more favorable location than on Apr. 6.09 [GRA04]. Apr. 6.13: comet strongly condensed; tail rather broad [BOU]. Apr. 6.18: w/ 25.6-cm L (169 \times), central cond. of mag 10.4 [BIV]. Apr. 8.16: w/ 20.3-cm L (95 \times), central cond. of mag 9.0 [BIV]. Apr. 10.10: this comet appears to be in outburst and showed an almost-stellar central cond., surrounded by a faint coma of dia. \sim 2'; obs. in astron. twilight under a somewhat-hazy sky [GRA04]. Apr. 10.13: apparently stellar nucleus at $m_2 = 7.1$ (ref TJ) was surrounded by a bright planet-like disc; easily seen despite bright twilight (sun 9° below horizon) [GRA04]. Apr. 10.13: "comet almost stellar, sporting a short, very faint tail; considerably brighter than 2 days ago; small outburst?" [BOU]. Apr. 10.16: w/ 20.3-cm L (95 \times), central cond. of mag \sim 6.5 (comet quasi-stellar) [BIV]. Apr. 12.17: w/ 25.6-cm L (169 \times), central cond. of mag 7.2 [BIV]. Apr. 13.81 and 28.44: The Sky ver. 5 software [MIT]. Apr. 13.82: GUIDE 8.0 software [YOS02]. Apr. 14.15: w/ 25.6-cm L (169 \times), central cond. of mag 7.7 [BIV]. Apr. 16.17: "w/ 25.6-cm L (169 \times), central cond. of mag 6.1; possible new outburst" [BIV]. Apr. 16.85: "surprisingly bright in the evening twilight; alt. 5°; found minutes before the lunar occultation of Saturn; this circumpolar comet was also seen in 8 \times 20 B" [KAR02]. Apr. 18.87: the coma appeared elongated and the shape of the tail was like a narrow 'V' (width \sim 5°); however, it showed a possible curvature towards W; the comet was easily visible in binoculars despite alt. 7° and astron. twilight [SKI]. Apr. 19.09: innermost part of tail clearly seen, also with binoculars; using 7.0-cm R, the central cond. appeared stellar w/ 24 \times , but clearly diffuse w/ 69 \times ; obs. in a somewhat hazy sky at alt. 8°-10° in astron./naut. twilight [GRA04]. Apr. 20.89: "the comet was an impressive object in 7.0-cm R (24 \times), quite similar to C/2002 C1 during the first days of March 2002; the sunward part of its coma appeared U-shaped and it showed a tail whose E edge was sharply defined, while its W boundary was more diffuse (apparently gas and dust components); the comet was obs. in astron. twilight shortly before setting below the local horizon (alt. 6°);" sky was quite transparent; the comet was again seen in morning sky, and through a 25.4-cm f/6 L (76 \times) it showed a jet-like structure in the same direction as its tail (Apr. 21.09) and the central cond. remained visible until solar alt. $-5^{\circ}8'$ [GRA04]. Apr. 22.82: twilight; sharp tail \sim 0°5 long;

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good comparisons nearby [RES]. Apr. 24.86: moonlight and twilight; comet well visible despite alt. of only 7° [BOU]. Apr. 24.90: "w/ 20.0-cm $f/4$ L ($64\times$), the comet showed a bright false nucleus and a fan-shaped tail (width $\approx 20^\circ$); its appearance was not unlike Hubble's Variable Nebula (NGC 2261); the comet was not hard to see in 7×50 B despite alt. $\sim 6^\circ$, twilight, and a nearly full Moon; this obs. was made during a meeting of Norwegian Astronomical Society, and about a dozen persons saw the comet" [GRA04]. Apr. 25.08: "comet stellar in appearance, w/ only a possible trace of inner coma; this was a challenging obs. due to low alt. (5°) and strong morning twilight (solar alt. -10°), but the comet was seen at correct location relative to the comparison star 21 Per; the false nucleus appeared clearly brighter than on Apr. 24.90; a new outburst in progress?" [GRA04]. Apr. 27.81: "twilight; nice sharp tail; $m_2 \sim 5.8-6.2$; comet alt. $9^\circ 5'$; extinction assumed" [RES]. Apr. 28.78: cirrus clouds, and low alt. [GIA01]. Apr. 29.86: tail appears to be rather broad, but is very faint in strong twilight [BOU]. Apr. 29.87: fan-shaped tail spans p.a. 15° and 45° [GON05]. Apr. 30.79: obs. $\sim 8^\circ$ above W horizon during naut. twilight; comet near M45 and Mercury at solar elong. $\sim 20^\circ$ [LEH].

◊ Comet C/2002 H2 (LINEAR) \implies 2002 Apr. 29.96: motion checked during 2-hr period; object very fast-moving; stellar mag limit ~ 15.4 at $262\times$; moonrise; excellent conditions [RES].

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TABULATED DATA

NOTE: As begun in the October 2001 issue, the CCD and visual tabulated data are separated. The tabulated CCD data in this issue also are given in the old format (see Oct. issue, page 158, for more details); the new printed format will be displayed for the first time in the April 2002 issue (for CCD data only; no changes are being made for visual 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 $> 10^\circ$); '&' = 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; x indicates that a secondary source (often amateur computer software) was used to get supposedly correct comparison-star magnitudes from an accepted catalogue].

"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; an updated list is also maintained at the *ICQ* World Wide Website). "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; a lower-case "a" indicates an exposure time under 1000 seconds, an upper-case "A" indicates an exposure time of 1000-1999 seconds (with the thousands digit replaced by the "A"), an upper-case "B" indicates an exposure time of 2000-2999 seconds (with the thousands digit replaced by the "B"), etc.].

"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 (with the exception of the Observer Codes) 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

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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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Key to observers with observations published in this issue, with 2-digit numbers between Observer Code and Observer's Name indicating source [16 = Japanese observers (via Akimasa Nakamura, Kuma, Japan); etc.]. Those with asterisks (*) preceding the 5-character code are new additions to the Observer Key:

ABB 07	James Abbott, Witham, Essex, UK	GRE	Daniel W. E. Green, U.S.A.
ADAO2 18	Jacek Adamik, Poland	GUZ 18	Piotr Guzik, Krosno, Poland
AGU 35	Jose Serrano Agustoni, Brazil	HAS02	Werner Hasubick, Germany
AMOO1 35	Alexandre Amorim, Brazil	HAS08 16	Yuji Hashimoto, Hiroshima, Japan
ANDO1 21	Karl-Gustav Andersson, Sweden	HOE	Sebastian F. Hoenig, Germany
ANI 42	Genady A. Anikanov, Belarus	HOR02 23	Kamil Hornoch, Czech Republic
*ARA 35	Wesley Araujo, Salvador, Brazil	JOH01	C. Johannink, The Netherlands
ARQ 35	Adrian Paulo Arquiola, Argentina	KAM01	A. Kammerer, Ettlingen, Germany
BAL07 35	Gustavo E. Ballan, Argentina	KAR02 21	Timo Karhula, Virsbo, Sweden
BANO1 18	Robert Bankowski, Sanok, Poland	KEZ 18	Piotr Kezwon, Jasienica, Poland
BAR06 37	Alexandr R. Baransky, Ukraine	KIS03 18	Adam Kisielewicz, Poland
BAR10 18	Jan Bartnikiewicz, Poland	*KLA02	Silvio Klausnitzer, Germany
BEA 07	Sally Beaumont, Cumbria, England	KOR01 19	Valeriy L. Korneev, Russia
*BED	James Bedient, HI, U.S.A.	KOS04 37	Denis S. Kosenkov, Orel, Russia
BEG01 15	Mike Begbie, Harare, Zimbabwe	KUB 23	Pavel Kubicek, Czech Republic
BIV	Nicolas Biver, France	KUB01	Tomas Kubec, Czech Republic
BOHO2 18	Jerzy Bohusz, Gdynia, Poland	KWI 18	Maciej Kwinta, Krakow, Poland
BON 07	Neil Bone, West Sussex, U.K.	KYS 23	J. Kysely, Czech Republic
BOU	Reinder J. Bouma, Netherlands	LEG 18	Marian Legutko, Gliwice, Poland
BURO4 18	Wojciech Burzynski, Poland	LEH	Martin Lehky, Czech Republic
BUS01 11	E. P. Bus, The Netherlands	LIN04	Mike Linnolt, Makawao, HI, USA
CAV	Marco Cavagna, Italy	LUE	Hartwig Luethen, Germany
CER01 23	Jakub Černý, Praha, Czech Rep.	MAC04 07	Gordon MacLeod, Caithness, U.K.
*CER02 23	Martin Černý, Praha, Czech Rep.	MAK02 18	Pawel Maksym, Lodz, Poland
CHE	G. R. Chester, VA, U.S.A.	MAN04	Luis A. Mansilla, Argentina
CHR 18	Antoni Chrapek, Pikulice, Poland	MAR02 13	Jose Carvajal Martinez, Spain
COM 11	Georg Comello, The Netherlands	MAR12 18	Leszek Marcinek, Poland
COO02	Tim P. Cooper, South Africa	MAR13 18	Jerzy Marcinek, Poland
COR01 40	A. P. da Silva Correia, Portugal	MAT08	Michael Mattiazzo, S. Australia
CRE02 36	Claudio Cremaschini, Italy	MEY 28	Maik Meyer, Germany
CSU 32	Mátyás Csukás, Salonta, Romania	MIT 16	Shigeo Mitsuma, Saitama, Japan
DAH 24	Haakon Dahle, Norway	MIY01 16	Osamu Miyazaki, Ibaraki, Japan
DES01	Jose G. de Souza Aguiar, Brazil	MOE	Michael Moeller, Germany
DIE02	Alfons Diepvens, Belgium	MOM 16	Masahiko Momose, Japan
DIJ	Edwin van Dijk, The Netherlands	NAG08 16	Yoshimi Nagai, Yamanashi, Japan
DUS 18	Grzegorz Duzanowicz, Sweden	*NED 23	Martin Nedved, Praha, Czech Rep.
END 16	Tsunenobu Endo, Nagano, Japan	NEK	A. N. Nekrasov, Baran, Belarus
FED03 48	D. V. Fedotov, Kharkov, Ukraine	*NEL01	Lee Nelson, Rock Island, TX, USA
FIL04 18	Marcin Filipek, Poland	NEV 42	V. S. Nevski, Vitebsk, Belarus
FOG	Sergio Foglia, Italy	OHM 16	Fumihiko Ohmori, Miyazaki, Japan
*GAR05 37	Tetyana Garkusha, Ukraine	PAC03 18	Pawel Paczkowski, Serock, Poland
GIA01	A. Giambersio, Potenza, Italy	PAR03 18	Mieczyslaw L. Paradowski, Poland
GIL01 11	G. Gilein, The Netherlands	PEA 14	Andrew R. Pearce, Australia
GOL 19	V. A. Golubev, Vitebsk, Belarus	PIL 18	A. Pilecka, Gdynia, Poland
GON05	J. J. Gonzalez, Asturias, Spain	PLO 15	Jan Plomp, Pretoria, South Africa
GRA04 24	Bjoern Haakon Granslo, Norway	POW01 18	Jacek Powichrowski, Poland
GRA09 18	K. Graczewski, Izabelin, Poland	PRIO4 15	D. Pringlewood, Harare, Zimbabwe

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RAE		Stuart T. Rae, New Zealand	SMY	18	J. Smyslo, Busko Zdroj, Poland
RES	18	M. Reszelski, Szamotuly, Poland	SOU01	35	W. C. de Souza, Sao Paulo, Braz.
RIB	40	J. Ribeiro, Esposende, Portugal	SOW	16	Toshihide Sowa, Wakayama, Japan
ROM	42	A. M. Romancev, Pinsk, Belarus	SPE01	18	Jerzy Speil, Poland
RZE	18	Zbigniew Rzepka, Poland	SPR		Chris. E. Spratt, BC, Canada
SAD	18	Piotr Sadowski, Poland	SVE01	48	Denis A. Svechkarev, Ukraine
SAN04	38	Juan M. San Juan, Madrid, Spain	SWI	18	Mariusz Swietnicki, Poland
SAN13	36	José L. Sanchez, Argentina	*SZCO2	18	Patryk Szczerba, Krakow, Poland
SAR02	32	K. Sárneckzy, Budapest, Hungary	TAY	07	M. D. Taylor, Yorks., England
SCH04	11	A. H. Scholten, The Netherlands	TIT	48	R. E. Titarenko, Ukraine
SCI		Tomasz Sciezor, Poland	TOL		Alin-Catalin Tolea, MD, U.S.A.
SEA		David A. J. Seargent, Australia	TOTO3	32	Zoltán Tóth, Hungary
SER	42	I. Sergey, Molodechno, Belarus	TSU02	16	M. Tsumura, Wakayama, Japan
SER02		Jérome Serant, Chevillon, France	WALO3	18	L. Walec, Stalowa Wola, Poland
SHA02	07	J. Shanklin, Cambridge, England	WAR02	07	Donald Ward, Victoria, Australia
*SHA09	37	Sergiy Shaidets'ky, Ukraine	WATO1	16	Nobuo Watanabe, Hokkaido, Japan
SHU	42	S. E. Shurpakov, Baran, Belarus	WLO	18	Robert Wlodarczyk, Poland
SIK01	18	M. Sikora, Lublin, Poland	YOS02	16	K. Yoshimoto, Yamaguchi, Japan
SIP	32	Brigitta Sipőcz, Hungary	YOS04	16	Seiichi Yoshida, Ibaraki, Japan
SIW	18	Ryszard Siwiec, Poland	YUM	35	Raquel Yumi Shida, Brazil
SKI	24	Oddleiv Skilbrei, Norway	ZAN01	11	W. T. Zanstra, The Netherlands
SKR	18	E. Skrzynecki, Krosno, Poland	ZNO	23	Vladimír Znojil, Czech Republic

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Comet 1P/Halley

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1986 11 07.76		M	7.7	AA	8.0	B		12	5	4			SHU
1986 12 25.62		I	5.0	AA	0.0	E		1	5	3/			SHU

Comet 19P/Borrelly

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 08 17.04	x	S	9.9	TJ	15	L	9	33	4	d3			PAR03
2001 08 23.06	x	S	10.3	TT	20.6	L	8	100	2	3			PAC03
2001 08 24.04	x&	S	10.9	TT	20	L	5	110	1	3			BURO4
2001 08 24.04	x&	S	10.9	TT	20	L	5	110	1	3			POW01
2001 08 24.07	x	S	10.3	TT	20.6	L	8	100	2.2	3			PAC03
2001 08 25.08	x	S	10.5:	TJ	31.7	L	5	78	& 0.7	5			ADA02
2001 08 27.06		E	8.7	AA	20	L	5	33	2	d5			ROM
2001 08 27.07	x	S	10.4	TT	11	L	7	46	1.5	3			BURO4
2001 08 27.07	x	S	10.5	TT	20	L	5	50	1.5	3			POW01
2001 08 30.07	x	S	10.7	TT	15	L	5	75	2	2			DUS
2001 08 31.06	x	S	9.7	TJ	25	L	6	54	1.5	3			SWI
2001 08 31.06	x	S	10.4	TT	11	L	7	32	2.1	3/			BURO4
2001 08 31.09	x	M	10.8:	TJ	31.7	L	5	78	& 1	6			ADA02
2001 08 31.10	x	B	9.3:	TJ	6.0	B		20	& 2	2			BAN01
2001 08 31.40	xs	S	11.1	TJ	35	L	6	105	& 1	d1			CHR
2001 09 04.09	x	S	9.3:	TJ	6.0	B		20	& 1	1			BAN01
2001 09 20.04	x	S	10.4:	TT	15	L	6	45	& 2.3	3/			MAK02
2001 09 20.06	x	B	9.4	TJ	18	L	7	58	4	4			WLO
2001 09 20.07	x	S	9.8	TJ	25	L	6	108	1.5	3			SWI
2001 09 20.12	x	B	[10.0	TJ	6.0	B		20					BAN01
2001 09 21.10	x	B	[10.0	TJ	6.0	B		20					BAN01
2001 09 25.05	x	B	10.5	TT	15	L	5	37	3	6			DUS
2001 09 26.06	x	S	10.6	TJ	20	L	5	110	3.5	3			POW01
2001 09 26.06	x	S	10.6	TT	20	L	5	50	3.5	d3			POW01
2001 09 29.08	x	S	10.2	TJ	20	L	5	110	2.6	3			POW01

Comet 19P/Borrelly [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 09 29.08	x	S	10.2	TT	20	L	5	50	2.3	d3			POW01
2001 10 15.99	x	S	10.4	TT	20	L	5	50	2.6	d3			POW01
2001 10 17.02		S	10.4	HS	36	L	6	90	3.5	3			BAR06
2001 10 23.98	x	S	10.8	TT	11	L	7	32	3.3	3/			BUR04
2001 10 23.98	x	S	10.9	TT	11	L	7	32	2.7	3			BAR10
2001 10 23.98	x	S	10.9	TT	11	L	7	32	3.2	4			POW01
2001 10 25.03	x	S	10.6	TT	16.5	L	8	50	2	5			FIL04
2001 10 25.04	x	M	10.6:	TJ	31.7	L	5	78	& 1.5	4			ADA02
2001 10 25.12	x	S	11.3	TJ	35	L	6	105	& 2	d2			CHR
2001 10 25.15	x	S	10.7	TJ	25	L	6	108	1.5	4			SWI
2001 10 26.11	x	S	11.3	TJ	35	L	6	105	& 2	d2			CHR
2001 10 28.12	x	S	11.5	TJ	35	L	6	105	& 1.5	d1			CHR
2001 11 11.13	x	S	11.0:	TJ	18	L	7	58	& 2	2			WLO
2001 11 12.17	x	S	11.2:	TT	15	L	5	32	2.5	2			DUS
2001 11 14.04		S	10.2	TI	7.6	L	10	35	5				CER01
2001 11 14.10	x	S	11.3	TT	15	L	5	32	2	3			DUS
2001 11 15.03		S	10.4	TI	7.6	L	10	35	4				CER01
2001 11 16.03		S	10.5	TI	7.6	L	10	35	4				CER01
2001 11 18.16	x!	S	10.7	TJ	35	L	6	105	& 2	d2			CHR
2001 12 09.98		S	10.9:	HS	11	L	7	50	2.3	2			BAR06
2001 12 22.04		S	12.2	AC	41	L	5	121	1.5	2			RES
2002 01 04.92		S	11.3	TJ	31.0	J	6	72	1.2	2			DIJ
2002 01 04.92		S	11.6	TJ	31.0	J	6	72	2.2	2			BOU
2002 01 06.15		S	12.1	VB	25.4	L	6	76	1.5	3			GRA04
2002 01 16.02		S	12.4	HS	33	L	5	150	1.0	3			SHAO2
2002 01 18.21		S	13.0:	HS	33	L	5	150	1.1	3			SHAO2
2002 01 19.78	x	S	12.5:	HS	25.4	L	4	113	1.5	4			YOS02
2002 01 20.00		S	12.1	TK	25.4	J	6	72	1.2	1			DIJ
2002 01 20.00		S	12.3	TK	25.4	J	6	72	2.2	2			BOU
2002 02 05.00		S	12.7	AC	41	L	5	121	1.5	2			RES
2002 02 05.02		M	12.7	HS	42	L	5	81	1	3/			LEH
2002 02 09.05		S	13.2	HS	38	L	4	126	1.2				SAR02
2002 02 13.91		S	13.3	AC	41	L	5	121	1.0	2/			RES
2002 02 14.92		M	12.6	HS	35	L	5	158	1.5	2/			HOR02
2002 02 14.92		S	12.9	AC	31.0	J	6	89	1.5	2			BOU
2002 02 15.02		M	12.8	HS	42	L	5	81	1.5	4			LEH
2002 02 15.90		S	12.8	AC	31.0	J	6	89	1.7	1/			BOU
2002 02 15.91		S	12.9	AC	31.0	J	6	89	1.8	1/			DIJ
2002 02 15.94		S	13.6	AC	41	L	5	121	0.8	2			RES
2002 02 16.02		M	12.9	HS	42	L	5	81	1.6	4			LEH
2002 02 16.91		M	12.7	HS	35	L	5	158	1.5	2/			HOR02
2002 02 17.90		S	13.4	AC	41	L	5	121	1.0	2			RES
2002 03 04.94		B	13.4	HS	42	L	5	81	1.5	4			LEH
2002 03 05.94		B	13.4	HS	42	L	5	81	1.5	4			LEH
2002 03 09.00		B	13.8	HS	42	L	5	162	1.4	4			LEH
2002 03 10.81		S	13.1	HS	44.0	L	5	156	1.5	3			HAS02
2002 03 11.00		B	13.8	HS	42	L	5	162	1.4	4			LEH
2002 03 11.92		B	14.1	HS	42	L	5	162	1.4	3/			LEH
2002 03 12.85		S	13.9	HS	35	L	5	158	1.0	2/			HOR02
2002 03 12.89		B	14.1	HS	42	L	5	162	1.3	3/			LEH
2002 03 13.78		B	14.1	HS	42	L	5	162	1.3	3/			LEH
2002 03 18.80		S	13.8	AC	41	L	5	262	0.5	2			RES

Comet 65P/Gunn

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 10.81		S	14.8	HS	44.0	L	5	156	0.4	3			HAS02
2002 03 14.93		S	14.4	HS	38	L	4	193	0.7	5/			SAR02
2002 03 15.95		S	14.3	HS	38	L	4	193	0.9	2/			SAR02
2002 03 18.91		S	14.4	AC	41	L	5	262	0.5	3/			RES
2002 03 20.01		S	14.4	AC	41	L	5	262	0.5	4			RES
2002 04 03.82		S	14.2	AC	41	L	5	262	0.5	3/			RES
2002 04 30.97		S	13.8	AC	41	L	5	121	0.7	4			RES

Comet 77P/Longmore

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 14.88		S	14.3	HS	38	L	4	193	0.6	2/			SAR02
2002 03 15.92		S	14.1	HS	38	L	4	193	0.8	3			SAR02

Comet 153P/2002 C1 (Ikeya-Zhang)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 02.43	x	S	8.8	TT	10.0	B		20	& 4	4			YOS02
2002 02 02.53	x	S	9.1	TT	20	L	4	45	3	3			PEA
2002 02 02.67		S	8.3	AA	10.0	R	6	34	4	4			KOR01
2002 02 02.70		S	8.3	TJ	41	L	5	72	6	4/			RES
2002 02 02.74		M	8.4	TT	10	B	4	25	4	4			LEH
2002 02 02.74		S	8.1	TJ	10.0	B		20	4	4			MEY
2002 02 02.75		S	8.4	TJ	8.0	B		15		4			BOU
2002 02 02.75		S	8.4	TJ	31.0	J	6	58	3	5			DIJ
2002 02 02.75		S	8.5	TJ	31.0	J	6	58	2.8	4/			BOU
2002 02 02.76		S	8.3	TK	20.3	L	6	48	3.5	4			BIV
2002 02 02.76		S	8.5	TT	10.0	B		25	6.0	4			HAS02
2002 02 03.00		S	8.8:	TK	8.0	B		20	2	1/			AM001
2002 02 03.53	x	S	8.6	TT	20	L	4	45	4.5	3/			PEA
2002 02 03.67		S	8.1	AA	6.0	B		15	4	4/			KOR01
2002 02 03.73		M	8.1	TT	10	B	4	25	5	4			LEH
2002 02 03.73	\$	S	8.1	TJ	41	L	5	72	3	4/			RES
2002 02 03.74		S	8.0	TJ	10.0	B		20	4	D4/			MEY
2002 02 03.75		S	8.4	TT	10.0	B		25	3.7	4			HAS02
2002 02 03.80		S	8.5	TJ	8.0	B		11	3				GON05
2002 02 03.94		B	5.2	YG	5.0	B		7		6			AM001
2002 02 03.97		S	8.0	TK	8.0	B		20	3	3			AM001
2002 02 03.98		S	8.1	TK	14.3	L	6	35	3	2			AM001
2002 02 04.22		S	8.2	TK	37	L	3	60	2.6	4			LIN04
2002 02 04.48		B	8.6	TT	10	B		25	2	4			MAT08
2002 02 04.53	x	S	8.6	TK	20	L	4	45	3.5	4			PEA
2002 02 04.70	\$	S	8.0	TJ	41	L	5	72	4	4/			RES
2002 02 04.72		M	7.6	TT	10	B	4	25	5	4			LEH
2002 02 04.93		S	8.0	TJ	8.0	B		11		2			SOU01
2002 02 04.95		S	8.5	TT	8.0	B		11		7			DES01
2002 02 04.96		S	8.3	HV	5.0	B		12		4			YUM
2002 02 05.48		B	8.3	TT	10	B		25	2	4			MAT08
2002 02 05.52	x	S	8.3	TK	20	L	4	45	3.5	4			PEA
2002 02 05.77		S	7.7	HI	20	R	14	40	2.2	5			SHA02
2002 02 05.77		S	8.8	TT	22	L	7	64	1	3			TAY
2002 02 05.95		S	8.4	TT	8.0	B		11	3	7			DES01
2002 02 06.23		S	7.9	TK	37	L	3	60	2.8	4			LIN04
2002 02 06.40	x	S	7.6	TJ	10.0	B		20	5	7			NAG08
2002 02 06.42	x	M	8.0	TT	12.5	L	6	23	4.0	4			TSU02
2002 02 06.42	s	S	7.9	HD	10.0	R		16	& 6	7			END
2002 02 06.44	x	S	8.6	TJ	15.0	B		25	3	3			HAS08
2002 02 06.48		B	8.1	TT	10	B		25	2	4			MAT08
2002 02 07.23		S	7.9	TK	37	L	3	60	2.5	4			LIN04
2002 02 07.41	x	S	7.2	TJ	15.0	B		25	4.3	5			HAS08
2002 02 07.53	x	S	7.9	TK	8.0	B		20	5.5	4			PEA
2002 02 08.23		S	7.8	TK	37	L	3	60	2.4	4			LIN04
2002 02 08.52	x	S	7.8	TK	8.0	B		20	6	5			PEA
2002 02 08.78		S	8.1:	HI	20	R	14	70	2	5			SHA02
2002 02 09.40	xw	S	7.4	TJ	10.0	B		20	4	7			NAG08
2002 02 09.41	x	M	8.0	HV	15.0	B		25	3.5	6			MIT
2002 02 09.52	x	S	7.7	TK	8.0	B		20	6	5			PEA
2002 02 09.77		S	8.1	HI	10	B		14	3.8	6			SHA02
2002 02 09.77		S	8.1	HI	20	R	14	70	2.2	5	0.06	210	SHA02
2002 02 09.78		S	8.0	HI	8.0	B		20	2.5	6			SHA02
2002 02 09.94		S	7.7	TT	8.0	B		11	4	6			DES01
2002 02 09.97		S	7.7	TK	8.0	B		20	4	3/			AM001
2002 02 10.24		S	7.5	TK	37	L	3	60	3.2	6	30	m 80	LIN04
2002 02 10.40	xw	S	7.5	TJ	10.0	B		20	4	7			NAG08
2002 02 10.48		B	7.8	TT	10	B		25	2.5	4			MAT08
2002 02 10.52	x	S	7.7	TK	8.0	B		20	5	5			PEA

Comet 153P/2002 C1 (Ikeya-Zhang) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 10.72		S	7.3	TJ	6.0	B		20	5	4			RES
2002 02 10.74		M	6.8	TT	10	B	4	25	6	5			LEH
2002 02 10.81		S	7.9	TJ	8.0	B		11	3	7			GON05
2002 02 10.95		S	7.5	TT	8.0	B		11	4	6			DES01
2002 02 10.96		S	7.2	TK	5.0	B		7		2			AM001
2002 02 10.96		S	7.2	TK	8.0	B		20	5	4			AM001
2002 02 11.48		B	7.7	TT	10	B		25	2.5	4			MAT08
2002 02 11.52	x	S	7.5	TK	8.0	B		20	5	5			PEA
2002 02 11.69		S	7.4	AA	6.0	B		15	6	5	0.2	95	KOR01
2002 02 12.40	s	S	7.6	HD	10.0	R		16	& 6	7			END
2002 02 12.72		S	6.9	TJ	6.0	B		20	5	4			RES
2002 02 12.75		S	7.4	TJ	7.0	B		16	6	5			GIA01
2002 02 12.81		S	7.4	TJ	8.0	B		11	3	7			GON05
2002 02 12.96		S	7.2	TK	8.0	B		20	3	4			AM001
2002 02 13.40	xw	S	7.1	TJ	8.0	B		11	6	7/			NAG08
2002 02 13.52	x	S	7.3	TK	8.0	B		20	5	5			PEA
2002 02 13.72		S	6.8	TT	6.0	B		20	5	4			RES
2002 02 13.75		S	7.2	TJ	7.0	R	7	24	2.5	5			GRA04
2002 02 13.80		S	7.8:	HI	8.0	B		20	2	4			SHA02
2002 02 14.23		S	7.3	TK	37	L	3	60	2.2	7			LIN04
2002 02 14.40	s	S	7.1	TJ	7.0	B		10	6	7	&0.05	80	END
2002 02 14.40	xw	S	7.0	TJ	5.0	B		12	6	8			NAG08
2002 02 14.43	xw	M	7.3	TT	10.0	B		20	5	7	12 m	85	YOS02
2002 02 14.70		E	7.5	AA	8	R	10	28	5	4			ROM
2002 02 14.72		S	6.6	TT	6.0	B		20	4	5			RES
2002 02 14.73		M	6.8	TT	10	B	4	25	5	6	0.50	55	LEH
2002 02 14.74		M	7.1	TT	8.0	B		10	6.5	5			HOR02
2002 02 14.74		S	7.1	TJ	6.3	B		9	2.1	5			DAH
2002 02 14.76		M	7.2	TJ	8.0	B		15	3.5	6/			BOU
2002 02 14.76	&	S	7.0:	TT	8.0	B		15	& 2				SCH04
2002 02 14.78		B	7.5	TK	5.0	B		7	3	8			BIV
2002 02 14.78		S	7.6	TK	20.3	L	6	48	3	7	0.2	90	BIV
2002 02 15.40	s	S	7.1	HD	7.0	B		10	6	7			END
2002 02 15.44	xw	M	7.4	TT	10.0	B		20	5	7			YOS02
2002 02 15.52	x	S	7.3	TK	8.0	B		20	6	5			PEA
2002 02 15.72		M	7.4	AA	6.0	B		20	4	S7			CSU
2002 02 15.72		S	6.5	TT	6.0	B		20	5	5			RES
2002 02 15.73		M	6.7	TT	10	B	4	25	6	6	0.50	60	LEH
2002 02 15.74		M	7.0	TT	8.0	B		10	6	5			HOR02
2002 02 15.76		M	7.0	TJ	25.4	J	6	58	3	7			BOU
2002 02 15.76		S	7.0	TJ	15.0	R	8	30	2	7			DIE02
2002 02 15.76	&	S	7.3	TJ	8.0	B		15	& 5				COM
2002 02 15.77		M	7.0	TJ	8.0	B		15	4	7			BOU
2002 02 15.77		M	7.3	TJ	10.0	B		20	3.5	5	0.1	70	MEY
2002 02 15.77	&	S	7.0	TT	30.0	L	5	60	2	7			SCH04
2002 02 15.78		S	7.4	TJ	5.0	B		7		4/			DIJ
2002 02 15.80		M	6.7	TI	10	R	5	25	4	4			MAR02
2002 02 16.25		S	7.3	TK	37	L	3	60	1.9	7			LIN04
2002 02 16.40	s	S	6.9	HD	7.0	B		10	& 6	8			END
2002 02 16.42	s	S	7.1	HD	40.0	L		44	4	7	&0.06	80	END
2002 02 16.52	x	S	7.2	TK	8.0	B		20	4	6			PEA
2002 02 16.72		S	6.4	TT	6.0	B		20	5	5			RES
2002 02 16.73		M	6.7	TT	10	B	4	25	5	6/			LEH
2002 02 16.73		M	7.2	AA	6.0	B		20	4	S7			CSU
2002 02 16.74		M	6.9	TT	8.0	B		10	6	5			HOR02
2002 02 16.76		M	6.9	TJ	8.0	B		15	4	7			BOU
2002 02 16.76		M	6.9	TJ	10.0	B		20	3	6	0.2	77	MEY
2002 02 16.76		S	6.8	TJ	15.0	R	8	30	2	7			DIE02
2002 02 16.77		S	7.1	TJ	8.0	B		15	3.5	5/			DIJ
2002 02 16.77	&	M	7.2	TJ	8.0	B		15	& 4	6/			COM
2002 02 16.77	&	S	6.9	TT	20.0	L	4	42	2	6/			SCH04
2002 02 16.78		B	7.3:	TK	5.0	B		7	3	8			BIV
2002 02 16.78		S	6.9	HI	8.0	B		20	2.5	5			SHA02
2002 02 16.79		S	6.7	HI	20	R	14	70	3.9	s5			SHA02
2002 02 17.46		B	7.1	TT	10	B		25	3	5			MAT08

Comet 153P/2002 C1 (Ikeya-Zhang) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 17.52	x	S	7.0	TK	8.0	B		20	4	6			PEA
2002 02 17.66		M	8.0	S	15	L	5	42	2	5			SHU
2002 02 17.70		S	6.8	AA	6.0	B		15	7	6	0.5	90	KOR01
2002 02 17.72		S	6.4	TT	6.0	B		20	4	5			RES
2002 02 17.77		S	7.0	TK	25.6	L	5	42	3	6	0.2	80	BIV
2002 02 17.78		B	6.8	TK	5.0	B		7	3	8			BIV
2002 02 17.81		S	6.8	TJ	8.0	B		11	3	7			GON05
2002 02 17.94		S	6.9	TT	8.0	B		11	5	6			DES01
2002 02 18.40		x	S	7.1	TJ	8.0	B	11	3.8	5			MIY01
2002 02 18.41	xw	S	7.0	TJ	8.0	B		11	5	8			NAG08
2002 02 18.46		B	6.9	TT	10	B		25	3	5			MAT08
2002 02 18.95		S	6.8	TT	8.0	B		11	5	6			DES01
2002 02 19.23		S	7.1	TK	37	L	3	60	2.1	7			LIN04
2002 02 19.41	xw	S	7.0	TJ	8.0	B		11	5	8			NAG08
2002 02 19.52	x	S	6.8	TK	8.0	B		20	4	6			PEA
2002 02 19.73		S	6.2	TT	6.0	B		20	6	6			RES
2002 02 19.77		S	7.0	TI	7.0	B		11	3	7			CRE02
2002 02 19.95		S	6.8	TT	8.0	B		11	5	5/			DES01
2002 02 20.41	xw	S	6.8	TJ	3.5	B		7	5	8			NAG08
2002 02 20.43	xw	M	7.0	TT	10.0	B		20	4	7	18 m	85	YOS02
2002 02 20.44	xw	M	6.8	TT	3.5	B		7		8			YOS02
2002 02 20.52	x	S	6.6	TK	8.0	B		20	4	6			PEA
2002 02 20.71		S	6.5	AA	6.0	B		15	6	6	0.4	80	KOR01
2002 02 20.77		M	6.6	TJ	7.0	R	7	24	3	6			GRA04
2002 02 20.78		S	6.7	HI	8.0	B		20	1.3	6			SHA02
2002 02 20.78		S	6.8	HI	20	R	14	70	2.7	s6			SHA02
2002 02 21.52	x	S	6.5	TK	8.0	B		20	4	6			PEA
2002 02 21.71		E	7.2	AA	8	R	10	28	6	s5			ROM
2002 02 21.72		S	6.1	TT	6.0	B		20	6	6			RES
2002 02 21.77		B	6.3	TJ	6.3	B		9	& 3	8			KAM01
2002 02 22.25		S	6.2	TK	37	L	3	172	2.5	7	5 m	70	LIN04
2002 02 22.52	x	B	6.4	TK	8.0	B		20	5	6/			PEA
2002 02 22.52	x	S	6.4	TK	8.0	B		20	5	6/			PEA
2002 02 22.68		M	6.4	S	7	R	4	19	4	5			SHU
2002 02 22.69		S	6.3	AA	6.0	B		15	6	5	0.4	75	KOR01
2002 02 22.82		S	6.3	TJ	8.0	B		11	3	7			GON05
2002 02 23.51	x	B	6.2	TK	8.0	B		20	5	6/			PEA
2002 02 23.51	x	S	6.2	TK	8.0	B		20	5	6/			PEA
2002 02 23.70		S	6.2	AA	6.0	B		15	6	5	0.5	75	KOR01
2002 02 23.78		M	6.3	HV	7.0	R	7	24	2.5	6			GRA04
2002 02 24.41	x	M	6.3	HV	15.0	B		25	3	7			MIT
2002 02 24.41	x	M	6.6	TT	10.0	B		26	2.0	5			TSU02
2002 02 24.51	x	B	6.0	TK	8.0	B		20	4.5	6/			PEA
2002 02 24.51	x	S	6.0	TK	8.0	B		20	4.5	6/			PEA
2002 02 24.74		S	5.8	TT	6.0	B		20	5	6			RES
2002 02 24.76		B	6.0	TI	7.0	B		11	3	7			CRE02
2002 02 24.82		S	6.3	TJ	8.0	B		11	3	7			GON05
2002 02 24.98		S	6.1	HD	5.0	B		14	10	7/			ARQ
2002 02 25.51	x	B	6.0	TK	8.0	B		20	4	6			PEA
2002 02 25.51	x	S	6.0	TK	8.0	B		20	4	6			PEA
2002 02 25.73		S	5.7	TT	6.0	B		20	4	5			RES
2002 02 26.51	x	B	6.0	TK	8.0	B		20	3.5	6/			PEA
2002 02 26.51	x	S	6.0	TK	8.0	B		20	3.5	6/			PEA
2002 02 26.74		S	5.7	TT	6.0	B		20	5	5			RES
2002 02 26.77		S	5.9	TI	8.0	B		20	2.5	7	0.15	85	SHA02
2002 02 26.78	a	M	5.8	TT	8.0	B		15	4	7			BOU
2002 02 26.79		S	6.8	TT	7.0	B		16	3	7	0.13	60	TAY
2002 02 26.95		S	6.1	TK	8.0	B		20	3	5			AM001
2002 02 26.96		S	6.4	TK	5.0	B		7		8			AM001
2002 02 27.23		M	6.0	TK	37	L	3	60	2.6	7	15 m	80	LIN04
2002 02 27.51	x	B	5.9	TK	8.0	B		20	4.5	7			PEA
2002 02 27.51	x	S	5.9	TK	8.0	B		20	4.5	7			PEA
2002 02 27.71		S	5.9	AA	6.0	B		15	5	5/	0.3	70	KOR01
2002 02 27.74		S	5.5	TT	6.0	B		20	5	6/			RES
2002 02 27.78		S	5.6	TI	20	R	14	40	2	7			SHA02

Comet 153P/2002 C1 (Ikeya-Zhang) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 28.23		M	6.0	TK	37	L	3	60	2.6	7	20 m	80	LINO4
2002 02 28.23		M	6.0	TK	37	L	3	60	2.6	7	20 m	80	LINO4
2002 02 28.51	x	B	5.6	TK	8.0	B		20	3.5	7			PEA
2002 02 28.68		S	5.8	AA	6.0	B		15	5	6	0.4	70	KOR01
2002 02 28.74		S	4.9	TT	6.0	B		20	6	7			RES
2002 02 28.75		B	4.9	TI	0.8	E		1	5	7			CER01
2002 02 28.75		B	5.1	TI	5.0	B		10	6	7	0.7	85	CER01
2002 02 28.78		M	5.3	TT	8.0	B		15	4	8	1.2	75	BOU
2002 02 28.78		S	5.4	TK	5.0	B		7	5	7	0.2	80	BIV
2002 02 28.78	!	S	5.6	TI	8.0	B		20	3.3	8	0.5	65	SHA02
2002 03 01.23		M	5.6	TK	37	L	3	60	2.6	7	30 m	80	LINO4
2002 03 01.50	x	B	5.1	TK	8.0	B		20	3.2	7/	0.5	76	PEA
2002 03 01.69		M	5.9	S	7	R	4	19	6	4/			SHU
2002 03 01.74		M	4.9	TT	5.0	B		10	6	7			LEH
2002 03 01.74		S	5.0	TT	6.0	B		20	6	7			RES
2002 03 01.75		B	4.9	TT	0.8	E		1		9			HOR02
2002 03 01.76		B	5.0	TI	5.0	B		10	5	8			CER01
2002 03 01.76		B	5.0	TI	5.0	B		10	5	8			CER01
2002 03 01.76		M	5.1	TT	8.0	B		10	4	8	1.0	80	HOR02
2002 03 01.78	!	S	5.7	HI	8.0	B		20	2.5	8	0.33	55	SHA02
2002 03 01.78	a	M	5.3	TT	5.0	B		7	& 4	8			BOU
2002 03 01.79		M	6.0	TT	7.0	B		16	4	6			TAY
2002 03 01.79		S	5.4	TK	5.0	B		7	4	7	0.8	75	BIV
2002 03 01.79		S	5.8	TT	7.0	B		16	4	6			TAY
2002 03 01.80		S	5.5	TK	20.3	L	6	48	4	8	0.6	75	BIV
2002 03 01.83		S	5.3	TJ	8.0	B		11	3	7	1.5		GON05
2002 03 02.00	w	B	5.8	S	5.0	B		12		8/			GRE
2002 03 02.25		M	5.6	TK	37	L	3	60	2.7	7	40 m	80	LINO4
2002 03 02.50	a	B	5.3	TK	8.0	B		20	6	7/			PEA
2002 03 02.69		S	5.5	AA	6.0	B		15	6	5	0.8	80	KOR01
2002 03 02.74		S	4.8	TT	6.0	B		20	6	7			RES
2002 03 02.78					7.0	R	7	24	3.5	7	0.8	75	GRA04
2002 03 02.78		B	5.3	TK	5.0	B		7	4	7	0.7	75	BIV
2002 03 02.78		S	5.8	AA	5.0	B		8	3	8			DIE02
2002 03 02.78	!	M	5.3	YG	5.0	B		7	3.5	7			GRA04
2002 03 02.79		S	5.6	TK	20.3	L	6	48	4	7	0.7	70	BIV
2002 03 03.00	!	S	5.1	TI	7.0	B		11	4	6			CRE02
2002 03 03.23		M	5.3	TK	37	L	3	60	2.7	7	45 m	80	LINO4
2002 03 03.41	x	S	6.5	TT	8.0	B		11	4.5	7			WAT01
2002 03 03.43		S	5.2	HS	7.0	B		10	5	7	0.2	90	MOM
2002 03 03.43	x	B	5.9:	HV	15.0	B		25	& 4	6			MIT
2002 03 03.50	a	B	5.3	TK	4.0	B		8	6	8			PEA
2002 03 03.50	a	B	5.3	TK	8.0	B		20	4.5	7/	1.2	74	PEA
2002 03 03.75		M	4.8	TT	8.0	B		10	5	8	1.8	80	HOR02
2002 03 03.76		B	4.6	TI	5.0	B		10	6	8			CER01
2002 03 03.76		B	4.6	TI	5.0	B		10	6	8			CER01
2002 03 03.76		B	4.8	TT	0.8	E		1		9			HOR02
2002 03 03.76		M	5.2	TI	6.0	B		20	5		0.8	80	SAR02
2002 03 03.76	a	B	5.1	TT	5.0	B		10	3.0	7	1.9	70	HAS02
2002 03 03.78	!	B	5.2	YG	5.0	B		7	3.5	7	0.9	70	GRA04
2002 03 03.78	!	M	5.2	YG	7.0	R	7	24	3.5	7	1.2	70	GRA04
2002 03 03.79	a	B	5.4	HV	6.3	B		9	& 2	8	0.6	70	KAM01
2002 03 03.94		S	5.1	YG	8.0	B		20	4	7			AM001
2002 03 04.23		M	5.4	TK	37	L	3	60	3.0	7	45 m	80	LINO4
2002 03 04.41	xa	S	5.2	TJ	5.0	B		12	4	8	0.4	80	NAG08
2002 03 04.42		S	5.5	HS	7.0	B		10	5	7			MOM
2002 03 04.49	a	B	5.3	TK	8.0	B		20	4.5	7/	0.45	77	PEA
2002 03 04.74		M	4.8	TT	5.0	B		10	6	7/	2	70	LEH
2002 03 04.76		B	4.5	TI	0.8	E		1	5	8			CER01
2002 03 04.76		B	4.5	TI	0.8	E		1	5	8			CER01
2002 03 04.76		M	4.6	TI	5.0	B		10	7	8	2.8	83	CER01
2002 03 04.76		M	4.6	TI	5.0	B		10	7	8	2.8	83	CER01
2002 03 04.77	a	B	4.9	TT	5.0	B		10	3.0	7	1.5	75	HAS02
2002 03 04.78	a	B	5.2	HV	6.3	B		9		S8/		85	KAM01
2002 03 04.79		M	5.1	YG	5.0	B		7		7	1.5		SKI

Comet 153P/2002 C1 (Ikeya-Zhang) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 04.79	!	M	5.3	YG	7.0	R	7	24	3.0	6			GRA04
2002 03 05.49	a	B	5.3	TK	8.0	B		20	4.5	8			PEA
2002 03 05.70		S	5.1	AA	6.0	B		15	8	5	1.0	70	KOR01
2002 03 05.72		E	5.2	AA	8	R	10	28	6	d7	0.4		ROM
2002 03 05.74		M	4.8	TT	5.0	B		10	6	7/	2	70	LEH
2002 03 05.74	w	S	5.6:	S	5.0	B		10	& 3.5	3/	&0.2		SVE01
2002 03 05.75		M	4.8	TT	8.0	B		10	5	7/	1.5	70	HOR02
2002 03 05.76		B	4.4	TI	0.8	E		1	5	8			CER01
2002 03 05.76		B	4.4	TI	0.8	E		1	5	8			CER01
2002 03 05.76		M	4.4	TI	5.0	B		10	7	8	3.25	82	CER01
2002 03 05.76		M	4.4	TI	5.0	B		10	7	8	3.25	82	CER01
2002 03 05.77		M	5.0	TI	6.0	B		20	6		1.2	80	SAR02
2002 03 06.23		M	5.2	TK	37	L	3	60	3.0	7	45 m	70	LIN04
2002 03 06.24		M	5.1	TK	5.0	B		10		7			LIN04
2002 03 06.41		S	5.0	HS	7.0	B		10	7	7	0.5	80	MOM
2002 03 06.41	xw	S	5.0	TJ	4.0	B		10	5	8	1.0	72	NAG08
2002 03 06.41	x	M	4.9	HV	15.0	B		25	3	7	0.3	75	MIT
2002 03 06.49	a	B	5.2	TK	8.0	B		20	4.5	8			PEA
2002 03 06.76		B	4.2	TI	0.8	E		1		9			CER01
2002 03 06.76		B	4.2	TI	0.8	E		1		9			CER01
2002 03 06.76		M	4.2	TI	5.0	B		10	6	8			CER01
2002 03 06.76		M	4.2	TI	5.0	B		10	6	8			CER01
2002 03 06.77		M	4.8	TT	8.0	B		10	5	7/	1.2	70	HOR02
2002 03 07.00	&	B	5.2	TT	6.3	B		9	> 5	8/			CHE
2002 03 07.22		M	4.7	YG	5.0	B		10	5	7	0.5	78	BED
2002 03 07.23		M	5.0	TK	5.0	B		10		7	30 m	70	LIN04
2002 03 07.23		M	5.1	TK	37	L	3	60	2.7	7	50 m	70	LIN04
2002 03 07.42	xw	S	4.8	TJ	3.5	B		7	5	8	1.5	77	NAG08
2002 03 07.42	xw	S	4.8	TJ	8.0	B		11	5	7/	2.5	77	NAG08
2002 03 07.44	xw	M	4.7	TT	3.5	B		7		8	1.5	75	YOS02
2002 03 07.49	x	S	4.9	TK	8.0	B		20	4	8			PEA
2002 03 07.75		S	5.1	TJ	5.0	B		7	15	5			GIA01
2002 03 07.76		M	4.5	TT	5.0	B		10	7	8	5.5	70	LEH
2002 03 07.77		M	4.4	TT	0.8	E		1	10	8/			LEH
2002 03 07.78		B	4.7	TJ	6.3	B		9	2.5	8	0.95	73	DAH
2002 03 07.78		S	4.6	HI	5.0	B		10	4	8	1.1	90	SHAO2
2002 03 07.78		S	4.7	AA	5.0	B		8	5	8	3 m	70	DIE02
2002 03 07.78	&	S	5.1	TJ	5.0	B		10	& 6	8	&1		COM
2002 03 07.78	a	S	4.7	TT	8.0	B		15	& 4	8	&0.2	70	SCH04
2002 03 07.79					7.0	R	7	24	3.0	7	1.9	75	GRA04
2002 03 07.79		B	4.5	HV	5.0	B		7	4	8	1.5	75	BIV
2002 03 07.79		B	4.7	TT	5.0	B		7	& 5	8	3.5	73	BOU
2002 03 07.79		I	4.7	YG	0.7	E		1					GRA04
2002 03 07.79		M	4.7	YG	5.0	B		7	3	7/	3.0	75	GRA04
2002 03 07.80		B	4.4	HV	0.0	E		1					BIV
2002 03 07.80		B	4.7	HV	20.3	L	6	48	4.0	8	0.9	75	BIV
2002 03 07.80		I	4.3	YG	0.7	E		1					SKI
2002 03 07.80		M	4.4	YG	5.0	B		7		8	2.4		SKI
2002 03 07.80		S	4.9	AA	6.0	B		15	10	5	1.2	70	KOR01
2002 03 07.81		M	5.3	TJ	5.0	B		7		5/			DIJ
2002 03 07.81		S	4.6	AA	5.0	B		10		8	1	70	ABB
2002 03 07.83		S	4.7	TJ	8.0	B		11	3	7	2.2		GON05
2002 03 07.85		M	5.0	S	6.0	B		20	10	5	0.6		KUB
2002 03 08.41		B	4.9	TJ	25.4	T	6	32	1.3	8	23 m	70	YOS04
2002 03 08.41		I	5.0	TJ	5	R		8	< 2.5	8/	12 m	70	YOS04
2002 03 08.42		S	4.7	HS	4.0	B		8	7	7	1.0	80	MOM
2002 03 08.42	xw	S	4.7	TJ	3.5	B		7	5	8	2.0	70	NAG08
2002 03 08.43	x	M	4.4	TT	3.5	B		7					TSU02
2002 03 08.44	xw	M	4.6	TT	3.5	B		7		8	2.2	70	YOS02
2002 03 08.44	x	S	5.3	TJ	8.0	B		11	2.2	6	0.5	67	MIY01
2002 03 08.71	a	S	4.6:	S	5	R	9	16	4.5	4	1		FED03
2002 03 08.75		M	4.3	TT	5.0	B		10	7	8	5	70	LEH
2002 03 08.76		B	4.2	TI	0.8	E		1	5	8			CER01
2002 03 08.76		B	4.3	S	6.0	B		20	6	6	1.5	67	KUB
2002 03 08.76		E	4.8	AA	8	R	10	28	7	D7	2		ROM

Comet 153P/2002 C1 (Ikeya-Zhang) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 08.76		M	4.1	TT	0.8	E		1	10	8/			LEH
2002 03 08.76		M	4.2	TI	5.0	B		10	7	8	4.2	80	CER01
2002 03 08.76		M	4.2	TT	8.0	B		10	6	8	6	70	HOR02
2002 03 08.76		S	4.3	TT	6.0	B		20	& 4	9			RES
2002 03 08.76	a	B	4.4	TT	5.0	B		10		7	2.6	70	HAS02
2002 03 08.77		B	4.1	TT	0.8	E		1	10	7			HOR02
2002 03 08.78		B	4.5	HV	5.0	B		7	5	7			BIV
2002 03 08.79		B	4.6	HV	25.6	L	5	42	4	7	0.5	70	BIV
2002 03 08.80	a	B	5.0	HV	6.3	B		9		S8/	1.3	70	KAM01
2002 03 08.81		B	4.9	S	7.0	B		10	3	8	0.75	70	MAR02
2002 03 08.83		S	4.7	TJ	8.0	B		11	3	7	2.0		GON05
2002 03 09.24		M	4.9	TK	37	L	3	60	2.5	7	10 m	70	LIN04
2002 03 09.41	xw	M	4.5	HV	8.0	B		11	3	8	1.4	70	MIT
2002 03 09.42	xa	S	4.6	TJ	3.5	B		7	5	7/	2.0	68	NAG08
2002 03 09.42	xw	M	4.7	HV	3.5	B		7	4	8	1.8	70	MIT
2002 03 09.42	w	S	4.6	HD	7.0	B		10	6	8	2.6	67	END
2002 03 09.43		S	4.6	HS	4.0	B		8	5	6	1.0	70	MOM
2002 03 09.43	w	S	4.7	HD	15.0	B		25	5	7/	2.9	67	END
2002 03 09.44	x	S	5.2	TJ	8.0	B		11	2.2	7	0.6	70	MIY01
2002 03 09.70	a	S	4.9	S	5.0	B		10	6	4	1	100	SVE01
2002 03 09.75	!	S	4.3	TT	8.0	B		11	6	8	2.5	70	WAR02
2002 03 09.78		B	4.5	HV	5.0	B		7	4	8			BIV
2002 03 09.78		B	4.5	TJ	6.3	B		9	3.1	8	1.3	76	DAH
2002 03 09.78		S	4.1	AA	5.0	B		8	5	8	40 m	80	DIE02
2002 03 09.78	a	S	4.7	TJ	5.0	B		7	& 1	8			JOH01
2002 03 09.79		S	4.4	HS	6.3	B		9	6	7	2.6	70	AND01
2002 03 09.80		M	4.5	TT	7.0	B		16	5	7	0.6	75	TAY
2002 03 09.81		B	4.4	YG	0.7	E		1			1		GRA04
2002 03 09.81		B	4.4	YG	5.0	B		7	4	7/	4.3	70	GRA04
2002 03 09.81		M	4.4	YG	5.0	B		7		8	3	65	SKI
2002 03 09.81		M	4.4	YG	7.0	R	7	24	4	7/	2	70	GRA04
2002 03 09.81		S	4.1	AA	5.0	B		10	10	6	0.67	10	BEA
2002 03 09.81		S	4.3	AA	5.0	B		10		7	1	59	ABB
2002 03 09.81	!	S	4.5	HI	5.0	B		10	4	8	1.5	75	SHA02
2002 03 09.82		B	4.4	HV	0.0	E		1	4	8			BIV
2002 03 09.82		B	4.4	HV	5.0	B		7	4	8	2.0	75	BIV
2002 03 10.75		E	4.7	AA	8	R	10	28	8	D7	2		ROM
2002 03 10.75	a	M	4.1	TT	5.0	B		7	5	8	1.9		ZNO
2002 03 10.76		B	4.0	TT	0.8	E		1	13	7			HOR02
2002 03 10.76		M	4.1	TT	5.0	B		10	7	8	4	70	LEH
2002 03 10.77		B	4.4	S	6.0	B		20	5	6	1.0		KUB
2002 03 10.77		I	4.1	TI	0.8	E		1					KYS
2002 03 10.77		I	4.4	TI	7.0	B		11	& 3	8	1.4	73	CRE02
2002 03 10.77		M	4.2	TI	5.0	B		7	8	6	5	70	KYS
2002 03 10.77		M	4.2	TT	8.0	B		10	5	8	5	70	HOR02
2002 03 10.77		S	3.9	TT	6.0	B		20	4.5	8/			RES
2002 03 10.77	a	B	3.9	TT	5.0	B		10	2.0	8	4.2	70	HAS02
2002 03 10.77	a	I	3.9	TT	0.8	E		1					HAS02
2002 03 10.78		B	4.4	HV	5.0	B		7	4	8			BIV
2002 03 10.78		M	4.1	TT	0.8	E		1	10	8/			LEH
2002 03 10.78	a	S	4.7	TT	8.0	B		15	& 5	8	&1.5	66	SCH04
2002 03 10.78	w	B	4.5	TJ	10.0	B		20	3.5	8	1.3	72	MEY
2002 03 10.78	w	I	4.1	TJ	0.8	E		1		9			MEY
2002 03 10.79	a	B	4.3	HV	6.3	B		9		S8/	1.8	68	KAM01
2002 03 10.79	a	B	4.6	TJ	5.0	B		7	& 3	7/	1		JOH01
2002 03 10.80		B	4.0	TI	0.8	E		1	5	8			CER01
2002 03 10.80		M	4.1	TI	5.0	B		10	8	8	3.0	79	CER01
2002 03 10.93		S	5.0:	YG	5.0	B		7	1	8			AM001
2002 03 11.01	&	B	5.1	TT	6.3	B		9	> 5	8/			CHE
2002 03 11.23		M	4.6	TK	5.0	B		10		7	30 m	70	LIN04
2002 03 11.42		B	4.3	AA	5.0	B		7	10	7	1	60	SOW
2002 03 11.42		S	4.4	HS	4.0	B		8	7	7	3.0	70	MOM
2002 03 11.42	xa	S	4.5	TJ	3.5	B		7	& 5	7/	2.0	65	NAG08
2002 03 11.43	xa	S	4.2:	TJ	0.0	E		1		8/			NAG08
2002 03 11.44	xa	M	4.3	TT	3.5	B		7		8	1.4	70	YOS02

Comet 153P/2002 C1 (Ikeya-Zhang) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.	
2002 03 11.69	a	S	4.6	S	5.0	B		10	6	4	0.8	95	SVE01	
2002 03 11.70	a	S	4.6	S	7	R	5	12	5	4	0.5		TIT	
2002 03 11.72	a	S	4.5	S	5	R	9	16	3.5	4	0.4		FED03	
2002 03 11.75		E	4.5	AA	8	R	10	28	10	D7	2.5		ROM	
2002 03 11.75	a	M	4.0	TT	5.0	B		7	5	8	1.2		ZNO	
2002 03 11.76		B	3.8	TI	0.8	E		1	10	8	1.0	70	CER01	
2002 03 11.76		M	4.0	TI	5.0	B		10	9	8	5.5	70	CER01	
2002 03 11.76		M	4.0	TT	5.0	B		10	7	8	4	70	LEH	
2002 03 11.76		M	4.4	TI	7.0	B		11	5	8	1.4	65	CRE02	
2002 03 11.77		M	3.9	TT	0.8	E		1	10	8/			LEH	
2002 03 11.77		M	4.2	TT	5.0	B		10	6	7/	2	70	HOR02	
2002 03 11.77		S	3.8	TT	6.0	B		20	5	8/			RES	
2002 03 11.78		I	4.0	TI	0.8	E		1					KYS	
2002 03 11.78		M	4.1	TI	5.0	B		7	7	7	6	70	KYS	
2002 03 11.78	a	B	4.0	TT	5.0	B		10	2.5		2.8	87	HAS02	
2002 03 11.80		B	4.3	HV	5.0	B		7	4	8	1.5	70	BIV	
2002 03 11.80		S	4.0	TT	7.0	B		16	4	7	0.8	51	TAY	
2002 03 11.80		S	4.0	TT	7.0	B		16	4	7	0.8	51	TAY	
2002 03 11.83		S	3.6	AA	5.0	B		10	10	6	1	10	BEA	
2002 03 11.83		S	4.7	AA	6.0	B		15	10	6	2.5	65	KOR01	
2002 03 12.00	w	B	4.6	Y	5.0	B		12		8/	&2		GRE	
2002 03 12.23		M	4.3	TK	5.0	B		10		7	50	m	70	LIN04
2002 03 12.70	a	S	4.8:	S	7	R	5	12	2.5	4	0.2		TIT	
2002 03 12.76		M	4.0	TT	5.0	B		10	6	8/	3	75	LEH	
2002 03 12.76		M	4.1	TT	8.0	B		10	6	8	4.5	70	HOR02	
2002 03 12.77		B	3.8	TT	0.8	E		1	12	7			HOR02	
2002 03 12.77		M	3.9	TT	0.8	E		1	10	8/			LEH	
2002 03 12.77		M	4.0	TI	5.0	B		7	7	6	2	70	KYS	
2002 03 12.77		M	4.1	YG	5.0	B		7	3	7/	0.6	70	GRA04	
2002 03 12.78	s	B	3.9	TJ	6.3	B		9	3.1	7/	2.0	70	DAH	
2002 03 12.84		S	4.6	AA	6.0	B		15	10	6	2.7	65	KOR01	
2002 03 13.41		B	4.3	AA	5.0	B		7	10	7	1	60	SOW	
2002 03 13.41		S	4.2	HS	4.0	B		8	7	7	2.0	70	MOM	
2002 03 13.41	xw	M	4.0	HV	8.0	B		11	& 2	8	1.5	70	MIT	
2002 03 13.42	xa	M	4.2	TJ	3.5	B		7	& 5	7/	3	67	NAG08	
2002 03 13.42	xw	M	4.1	HV	3.5	B		7		8			MIT	
2002 03 13.44	xa	M	4.1	TT	3.5	B		7		7/	2.2	70	YOS02	
2002 03 13.70	a	S	4.6	S	8.0	B		10	4	4	0.7	95	SVE01	
2002 03 13.75		B	3.7	TT	0.8	E		1	10	7			HOR02	
2002 03 13.75		M	3.9	TT	5.0	B		10	6	8/	3	70	LEH	
2002 03 13.76		M	4.0	TI	6.0	B		20	5	S8	3	70	SAR02	
2002 03 13.76		M	4.0	TT	8.0	B		10	5	8/	4.5	65	HOR02	
2002 03 13.78		B	3.7	TI	0.8	E		1	10	8	1.0	65	CER01	
2002 03 13.78		B	4.1	HV	5.0	B		7	4	8	1.5	65	BIV	
2002 03 13.78		M	3.7	TI	5.0	B		10	9	8	2.0	65	CER01	
2002 03 13.78	a	S	3.7	S	3.0	B		4	& 7	7/	>3	70	BUS01	
2002 03 13.79	a	B	3.7	TT	5.0	B		10	2.9	8	4.0	71	HAS02	
2002 03 13.79	a	S	4.2	AA	5.0	B		10	9	7	2	70	ZAN01	
2002 03 13.80		B	3.8	TT	5.0	B		7	6	8	4.5	65	BOU	
2002 03 13.80		B	4.0	HJ	5.0	B		7	10	8	2.5	70	SER02	
2002 03 13.80		B	4.2	TT	5.0	B		7	8	7/	6.5	54	DIJ	
2002 03 13.80		I	3.8	TT	0.7	E		1					BOU	
2002 03 13.80		I	4.0	YG	0.7	E		1					GRA04	
2002 03 13.80		M	4.0	YG	5.0	B		7	3	8	3.0	65	GRA04	
2002 03 13.80		S	4.2	HI	5.0	B		7	4	8	1.8	60	SHA02	
2002 03 13.80	s	B	3.8	HV	6.3	B		9		S8/	&2.5	62	KAM01	
2002 03 13.81		B	4.0	HV	5.0	B		7	3	8	3.2	68	BIV	
2002 03 13.82		B	3.9	HV	0.0	E		1	4	8	1.0		BIV	
2002 03 13.82		I	3.9	YG	0.7	E		1					SKI	
2002 03 13.82		M	4.0	YG	5.0	B		7	4	7/	3.4	66	SKI	
2002 03 14.08		B	3.9:	HI	5.0	B		10	& 7	7			NEL01	
2002 03 14.25		M	3.8	TK	5.0	B		10		7	60	m	70	LIN04
2002 03 14.76		M	3.8	TI	6.0	B		20	5	S8	3	65	SAR02	
2002 03 14.78	w	I	3.9	TJ	0.7	E		1			2.0		DAH	
2002 03 14.79	!	B	4.0	TT	8.0	B		11	6	8	1.0	65	WAR02	

Comet 153P/2002 C1 (Ikeya-Zhang) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 14.80	w	B	3.9	TJ	6.3	B		9	3.4	7/	4.3	64	DAH
2002 03 14.82		B	3.9	YG	5.0	B		7	3	8	4.3	62	GRA04
2002 03 14.82		I	3.9	YG	0.7	E		1			2		GRA04
2002 03 14.92		S	4.5	TK	5.0	B		10	4	5	0.12	30	ARA
2002 03 15.23		M	3.6	TK	5.0	B		10		7	1.75	50	LIN04
2002 03 15.43	xw	M	3.8	TJ	4.0	B		10	& 5	7	&2	58	NAG08
2002 03 15.70		M	4.0	S	15	L	5	42	4	8	2.2	62	SHU
2002 03 15.73		S	3.5	SP	5.0	B		7					GOL
2002 03 15.74		B	4.3	AA	3	0		8	7	8	1.8		SER
2002 03 15.74		M	3.8	AA	11	B		20	6	8	5	63	NEV
2002 03 15.75		E	4.3	AA	8	R	10	28	10	D7	3		ROM
2002 03 15.76		M	3.7	TT	5.0	B		10	6	8	2	70	LEH
2002 03 15.80		B	3.9	HJ	5.0	B		7	5	8	2.5	65	SER02
2002 03 15.80		B	3.9	HV	5.0	B		7	4	8	1.0		BIV
2002 03 15.81		B	3.8	TT	5.0	B		7	4	8/	2.7	65	KAR02
2002 03 15.82		B	3.7	YG	5.0	B		7	4	8	4.4	60	SKI
2002 03 15.82		I	3.6	YG	0.7	E		1			1.5		SKI
2002 03 15.83		I	3.9	YG	0.7	E		1					GRA04
2002 03 15.83		M	3.9	YG	5.0	B		7	3	8	1.7	63	GRA04
2002 03 15.83		N	7.7:	TK	7.0	R	7	69	2.8	7	0.9	60	GRA04
2002 03 15.85		S	4.1	AA	6.0	B		15	12	7	3.4	70	KOR01
2002 03 16.03		S	3.8	YG	5.0	B		10	10	D4	0.5	300	TOL
2002 03 16.23		M	3.5	TK	5.0	B		10	5	7	3.5	50	LIN04
2002 03 16.41	xa	M	3.8	HV	8.0	B		11	2	8			MIT
2002 03 16.42	w	S	3.6	HD	7.0	B		10	7	8	3.4	64	END
2002 03 16.43	xa	M	3.6	TJ	3.5	B		7	& 7	7	3	63	NAG08
2002 03 16.43	x	B	4.3	HV	5.0	B		7	4	7	2.5	61	MIY01
2002 03 16.70		B	3.5	AA	6.0	B		20	10	7	2.5	45	KOS04
2002 03 16.71	a	S	3.8	S	10	R	5	20	7	3/	2		FED03
2002 03 16.73		S	3.5	SP	5.0	B		7					GOL
2002 03 16.74		B	4.2	AA	3	0		8	6	8	1.6		SER
2002 03 16.74		E	4.3	AA	8	R	10	40	10	6	2.5		ROM
2002 03 16.74	a	S	4.0	S	11	L	7	32	5	3/	2		TIT
2002 03 16.79	&	S	3.8	TT	8.0	B		15	& 3	8			SCH04
2002 03 16.79	a	B	3.6	TJ	5.0	B		7	& 3	7/	1		JOH01
2002 03 16.80		B	3.9	S	0.0	E		1	> 1	7	3	75	MAR02
2002 03 16.80		S	3.4	TJ	6.0	B		20	5	7	2	54	LUE
2002 03 16.81		B	4.0	S	3.0	B		6	2	8	4.5	75	MAR02
2002 03 16.81	a	S	2.7	AA	5.0	B		10					ZAN01
2002 03 16.83		I	3.5	TJ	0.0	E		1			2		GON05
2002 03 16.83		S	3.4	TJ	5.0	B		7	3	7	5		GON05
2002 03 16.86		S	3.9	AA	6.0	B		15	9	8	3.6	80	KOR01
2002 03 17.00		B	3.5	Y	5.0	B		12		8	&4		GRE
2002 03 17.01	w	B	3.4	Y	0.0	E		1		9	&1		GRE
2002 03 17.42	x	B	3.9:	HV	5.0	B		7	3	7/	2.2	63	MIY01
2002 03 17.71		B	3.7	AA	6.0	B		20	10	7	2.5	50	KOS04
2002 03 17.72	a	S	3.6	S	5.0	B		10	8	3/	2.4	75	SVE01
2002 03 17.72	a	S	3.7	S	10	M	10	40	8	3/	2.5		FED03
2002 03 17.72	w	M	3.9	S	12	C	4	36	2.5	8	4.3	58	SHU
2002 03 17.73		S	3.5	SP	5.0	B		7					GOL
2002 03 17.73	w	M	4.0	S	7	R	4	20	2	8	4.3	58	SHU
2002 03 17.74		M	3.6	AA	11	B		20	5	9	5	62	NEV
2002 03 17.75		E	4.2	AA	8	R	10	28	10	5	2		ROM
2002 03 17.78		S	3.3	TT	6.0	B		20	5	8			RES
2002 03 17.88		S	3.7	AA	3.5	B		8	7	8	3.8	75	KOR01
2002 03 18.23		M	3.6	TK	5.0	B		10	3	7	2.0	50	LIN04
2002 03 18.23		M	3.8	YG	5.0	B		10	5	8	3.3	70	BED
2002 03 18.69		M	3.6	S	15	L	5	42	2.5	8		59	SHU
2002 03 18.70		B	3.7	AA	6.0	B		20	8	7	2.0	50	KOS04
2002 03 18.71	a	S	3.6	S	5.0	B		10	9	3/	2.8	50	SVE01
2002 03 18.74		E	4.4	AA	8	R	10	28	8	5	2		ROM
2002 03 18.76		M	3.4	TT	5.0	B		10	6	8	3	70	LEH
2002 03 18.77		M	3.3	TT	0.8	E		1	10	8/			LEH
2002 03 18.78		B	3.2	TI	0.8	E		1	10	8	1.5	61	CER01
2002 03 18.78		M	3.3	TI	5.0	B		10	8	8	6.5	61	CER01

Comet 153P/2002 C1 (Ikeya-Zhang) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 18.78		M	3.6	TI	5.0	B		7	8	8	3		KYS
2002 03 18.78		S	3.1	TT	6.0	B		20	5	8			RES
2002 03 18.81		S	3.6	HV	0.0	E		1	5	8	2.0	60	BIV
2002 03 18.81	a	B	3.2	TJ	5.0	B		7	& 3	7/	2		JOH01
2002 03 18.82		S	3.7	HV	5.0	B		7	4	8	3.5	60	BIV
2002 03 18.87		S	3.5	AA	3.5	B		8	7	8	3.6	70	KOR01
2002 03 19.23		M	3.4	TK	5.0	B		10	3	7	2.0	50	LIN04
2002 03 19.42	x	B	4.2	HV	5.0	B		7	2	7	3.3	59	MIY01
2002 03 19.43		B	3.6	AA	5.0	B		7	10	6	3	50	SOW
2002 03 19.43	xa	M	3.5	TJ	3.5	B		7	& 7	7/	&4.5	63	NAG08
2002 03 19.69	w	M	3.7	AA	7	R	4	12	4	8	2.5		SHU
2002 03 19.73		E	4.4	AA	8	R	10	40	8	5	2		ROM
2002 03 19.73		S	3.5	SP	5.0	B		7					GOL
2002 03 19.76		M	3.4	TT	5.0	B		10	6	8/	3	65	LEH
2002 03 19.77		M	3.3	TT	0.8	E		1	10	8/			LEH
2002 03 19.79	a	B	3.6	TJ	5.0	B		7	6	8			DIJ
2002 03 19.79	a	S	3.7	TJ	5.0	B		7	& 3	7/	1		JOH01
2002 03 19.80	a	B	3.2	TT	5.0	B		7		8	5	55	BOU
2002 03 19.81		B	4.2	S	7	R	7	12	2	9	4	50	SAN04
2002 03 19.83		B	3.4	S	0.0	E		1	> 1	9	2	60	MAR02
2002 03 19.83		B	3.7	S	7.0	B		10	2	9	4	60	MAR02
2002 03 19.83		I	3.2	TJ	0.0	E		1			1		GON05
2002 03 19.83		S	3.2	TJ	5.0	B		7	3	7	4	60	GON05
2002 03 20.41	xa	M	3.6	HV	8.0	B		11	2	8	&2	50	MIT
2002 03 20.42	xs	M	3.6	TJ	3.5	B		7	& 7	7/	&4	50	NAG08
2002 03 20.42	xs	M	3.7	HV	3.5	B		7					TSU02
2002 03 20.44	xa	M	3.5	TT	3.5	B		7		7/	1.2	55	YOS02
2002 03 20.76		M	3.4	TT	5.0	B		10	6	8	2	60	LEH
2002 03 20.79			4.3	AT	0.0	E		1					CAV
2002 03 20.79		S	3.0	TT	6.0	B		20	5	8/			RES
2002 03 20.81		B	4.2	S	7	R	7	12	& 2	9	3.5	55	SAN04
2002 03 20.83		I	3.2	TJ	0.0	E		1			1		GON05
2002 03 20.83		S	3.2	TJ	5.0	B		7	3	7	4	60	GON05
2002 03 20.88		S	3.3	AA	3.5	B		8	6	8	3.6	60	KOR01
2002 03 21.23		M	3.6	TK	5.0	B		10	2	7	1.5	50	LIN04
2002 03 21.76		B	3.6	S	3.0	B		6	11	7	4.0		KUB
2002 03 21.76		E	4.0	AA	8	R	10	40	10	4	2.5		ROM
2002 03 21.76		M	3.4	TT	5.0	B		10	6	8	2	60	LEH
2002 03 21.80		B	3.5	HV	5.0	B		7	5	8	2.0	55	BIV
2002 03 21.80		S	3.6	AA	5.0	B		8	8	6	1.3	50	DIE02
2002 03 21.81		B	3.8	S	7	R	7	12	& 2	9	4	45	SAN04
2002 03 21.81	a	S	3.4	TT	8.0	B		15	& 5	8	&3	50	SCH04
2002 03 21.83		S	3.2	TJ	5.0	B		7	3	7	3	50	GON05
2002 03 21.83		S	3.6	TK	5.0	B		7	5	8	2.6	50	SHA02
2002 03 21.88		S	3.3	AA	3.5	B		8	7	8	3.4	50	KOR01
2002 03 22.00		B	3.4	TJ	8.0	B		20		8	&4		GRE
2002 03 22.01	w	B	2.8	TJ	0.0	E		1					GRE
2002 03 22.24		M	3.6	TK	5.0	B		10	3	7	1.5	50	LIN04
2002 03 22.79		S	2.8	TT	6.0	B		20	4	8/			RES
2002 03 22.80		B	2.9	TT	0.8	E		1	14	7			HOR02
2002 03 22.80		B	3.4	HV	0.0	E		1			1.8	45	BIV
2002 03 22.80		B	3.5	HV	5.0	B		7	5	8	3.0	50	BIV
2002 03 22.80		S	3.6	AA	5.0	B		8	8	6	1.3	45	DIE02
2002 03 22.80	a	B	3.2	TJ	0.0	E		1		8			JOH01
2002 03 22.80	a	B	3.6	TJ	5.0	B		7	2	8	2		JOH01
2002 03 22.80	a	S	3.2	S	3.0	B		4	& 5	8	>3	50	BUS01
2002 03 22.80	a	S	3.6	TT	0.0	E		1		8	&1	43	SCH04
2002 03 22.80	a	S	3.6	TT	4.0	B		8	& 5	8	&2.5	43	SCH04
2002 03 22.81		B	3.0	TT	5.0	B		7		8	5.5	50	BOU
2002 03 22.81		B	3.6	HV	5.0	B		7	5	8	4.5	50	BIV
2002 03 22.81		B	3.8	S	7	R	7	12	& 2	9	3	45	SAN04
2002 03 22.81		M	3.1	TT	8.0	B		10	6	8/	4	50	HOR02
2002 03 22.82		B	3.1	TJ	5.0	B		7		8	6	47	DIJ
2002 03 22.82		I	2.9	TT	0.7	E		1		9			BOU
2002 03 22.84		I	3.0	TJ	0.0	E		1			2		GON05

Comet 153P/2002 C1 (Ikeya-Zhang) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 22.84		S	3.0	TJ	5.0	B		7	3	7	4	50	GON05
2002 03 22.85		M	3.5	YG	5.0	B		7	4	8	1.5	49	GRA04
2002 03 22.86		B	3.2	YG	5.0	B		7	4	8/	5	49	SKI
2002 03 22.88		S	3.3	AA	3.5	B		8	7	8/	3.1	50	KOR01
2002 03 23.24		M	3.5	TK	5.0	B		10	2	7	1.0	50	LIN04
2002 03 23.43		B	3.4	AA	5.0	B		7	10	7	4	40	SOW
2002 03 23.77	a	B	2.9	TT	0.8	E		1	10	7/	1.5	40	HOR02
2002 03 23.79	a	M	3.1	TT	8.0	B		10	5	8/	5.5	50	HOR02
2002 03 23.80		B	3.5	HV	5.0	B		7	4	8	3.0	50	BIV
2002 03 23.81		B	3.5	HV	0.0	E		1	5	8	1.5	50	BIV
2002 03 23.81		S	3.6	AA	5.0	B		8	8	6	1.3	45	DIE02
2002 03 23.81	a	B	3.1	TJ	5.0	B		7	3	7/	1.5		JOH01
2002 03 23.81	a	S	3.6	TT	0.0	E		1		8	&1	40	SCH04
2002 03 23.81	a	S	3.6	TT	4.0	B		8	& 5	8	&3	40	SCH04
2002 03 23.82		B	3.5	HV	5.0	B		7	4	8	4.5	45	BIV
2002 03 23.82		I	3.4	YG	0.7	E		1			3		GRA04
2002 03 23.82		M	3.5	YG	5.0	B		7	4	8	3.8	43	GRA04
2002 03 23.82		N	7.8	TK	7.0	R	7	69	4.0	7/			GRA04
2002 03 23.83		B	3.6	S	0.0	E		1	> 1	8	2.5	50	MAR02
2002 03 23.83		B	3.8	S	7	R	7	12	& 2	9	4	45	SAN04
2002 03 23.84		B	3.1	TJ	5.0	B		7		8	&4		DIJ
2002 03 23.84		I	3.0	TJ	0.0	E		1			1		GON05
2002 03 23.84		S	2.9	TJ	5.0	B		7	3	7	4	50	GON05
2002 03 23.85		B	3.6	TT	8.0	B		11		8	2		WAR02
2002 03 23.86		I	3.0	YG	0.7	E		1		9	3.7		SKI
2002 03 23.88		S	3.2	AA	3.5	B		8	6	9	3.5	45	KOR01
2002 03 24.00		B	3.2	TJ	3.5	B		7		8	&2		GRE
2002 03 24.00		B	3.2	TJ	5.0	B		12		8	&2		GRE
2002 03 24.17	!	M	3.6	YG	5.0	B		7	3.5	6			GRA04
2002 03 24.24		M	3.4	TK	5.0	B		10	3	7	1.7	45	LIN04
2002 03 24.41	xa	M	3.4	TJ	5.0	B		12	& 5	7/	&2	33	NAG08
2002 03 24.80		S	3.6	HS	6.3	B		9	6	7	4.6	35	AND01
2002 03 24.80	!	I	3.3	TI	7.0	B		11	4	7	2.8	35	CRE02
2002 03 24.81		B	3.1	TT	5.0	B		7	& 6	8	4.5	43	BOU
2002 03 24.81		B	3.5	HV	5.0	B		7	4	8	1.5	45	BIV
2002 03 24.82		M	3.6	YG	5.0	B		7	4	8	2.0	43	GRA04
2002 03 24.82		N	7.6:	TK	15.2	L	5	107	3.5	7			GRA04
2002 03 24.83		B	3.0	TJ	5.0	B		7		8	&4		DIJ
2002 03 24.83		B	3.7:	S	7.0	B		10	4	8	2	50	MAR02
2002 03 25.42		S	3.4	AA	4.0	B		8	7	7			MOM
2002 03 25.42	xs	M	3.4	TJ	3.5	B		7	& 5	7/	&2	26	NAG08
2002 03 25.42	x	B	4.0	TJ	5.0	B		7	4	7	4.6	42	MIY01
2002 03 25.70		M	3.5	S	15	L	5	30	2	8	1.8	65	SHU
2002 03 25.72		M	3.8	S	15	L	5	30	6	7	1.5		NEK
2002 03 25.72	w	M	3.0	S	15	L	5	30	5		1.6		ANI
2002 03 25.75		S	2.6	SP	5.0	B		7					GOL
2002 03 25.76		M	3.2	AA	0.0	E		1	6	9	3	40	NEV
2002 03 25.77		B	2.9	TT	5.0	B		10	2.8	8	5.4	32	HAS02
2002 03 25.78		I	2.9	TT	0.8	E		1					HAS02
2002 03 25.79	a	B	3.1	TJ	5.0	B		7	3	8	1		JOH01
2002 03 25.81		E	4.0:	AA	8	R	10	40	9	5	2		ROM
2002 03 25.81	a	B	3.2	HV	6.3	B		9	4	S8	&2.5	35	KAM01
2002 03 25.82		B	3.8	TI	5.0	B		7	5	7	0.8	45	SER02
2002 03 25.84		I	3.0	TJ	0.0	E		1					GON05
2002 03 25.84		S	2.9	TJ	5.0	B		7	3	7	2	50	GON05
2002 03 26.43		S	3.6	AA	4.0	B		8	5	6			MOM
2002 03 26.72		B	3.9	AA	6.0	B		20	9	7	1.0	40	KOS04
2002 03 26.78	a	M	3.2	TT	5.0	B		7	8	6	1.6		ZNO
2002 03 26.79	a	O	2.9	TT	0.8	E		1	10	7	1.2		ZNO
2002 03 26.80	a	B	3.4	TJ	5.0	B		7	3	8	1.5		JOH01
2002 03 26.80	a	B	3.8	TJ	0.0	E		1		8			JOH01
2002 03 26.82		B	3.4	YG	5.0	B		7	4	8	2.1	37	GRA04
2002 03 26.82		B	3.6	S	7	R	7	12	> 1	8	2	35	SAN04
2002 03 26.82	!	B	3.4	TK	0.7	E		1	5	8			SHA02
2002 03 26.82	!	B	3.6	TK	5.0	B		7	4	8	2.2	35	SHA02

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DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 26.84		B	4.0	S	5.0	B		7	8	7	1.5	50	RIB
2002 03 26.84		I	3.0	TJ	0.0	E		1					GON05
2002 03 26.84		S	2.9	TJ	5.0	B		7	3	7	2	45	GON05
2002 03 26.85		B	4.1	S	5.0	B		7	6	7	1	50	COR01
2002 03 27.13		M	3.4	TK	5.0	B		10	3	7	2.0	45	LIN04
2002 03 27.42	xw	M	3.5	HV	8.0	B		11	& 3	8			MIT
2002 03 27.43	xa	M	3.4	TJ	3.5	B		7	& 6	7	3.5	25	NAG08
2002 03 27.44	xa	M	3.4	TK	3.5	B		7		7	1.8	25	YOS02
2002 03 27.45	x&	B	3.5:	S	3.0	B		8		7			OHM
2002 03 27.70		M	3.6	S	7	R	4	12	3	8	&3	39	SHU
2002 03 27.76		M	3.3	TT	5.0	B		10	5	8	2	30	LEH
2002 03 27.77		M	3.2	TT	0.8	E		1	10	8			LEH
2002 03 27.78		B	3.0	TT	5.0	B		10	4.6	8	4.6	33	HAS02
2002 03 27.78		B	3.5	S	3.0	B		6	11	7			KUB
2002 03 27.78		M	3.3	TI	5.0	B		7	8	8	3		KYS
2002 03 27.79		B	2.6	TI	0.8	E		1	10	8	1.0	22	CER01
2002 03 27.79		M	2.7	TI	5.0	B		10	10	8	3.5	22	CER01
2002 03 27.79		S	3.2	TT	6.0	B		20	5	8/	1	60	RES
2002 03 27.80		B	3.6	HS	5.0	B		10	2.2	4/	4	115	HOE
2002 03 27.80	&	M	3.9	TJ	5.0	B		10		8	&1		COM
2002 03 27.80	a	B	3.5	TJ	5.0	B		7	3	8	0.5		JOH01
2002 03 27.80	w	I	3.0	TJ	0.8	E		1		8			MEY
2002 03 27.81		B	3.4	HV	0.0	E		1	5	7			BIV
2002 03 27.81		B	3.5	HV	5.0	B		7	5	8	3.0	35	BIV
2002 03 27.81		S	3.9	TT	6	R	7	17					TAY
2002 03 27.81	a	S	3.7	TT	4.0	B		8	& 5	8	&2	25	SCH04
2002 03 27.81	s	B	3.4	TT	5.0	B		10		8	&3	35	BOU
2002 03 27.82		B	3.6	TI	5.0	B		7	10	6	0.7	40	SER02
2002 03 27.82		B	4.0	S	7.0	B		10	5	7/	1	25	MAR02
2002 03 27.83	!	B	3.5	TK	5.0	B		7	4	8	1.5	40	SHA02
2002 03 27.84		I	3.0	TJ	0.0	E		1					GON05
2002 03 27.84		S	2.9	TJ	5.0	B		7	3	7	2.5	45	GON05
2002 03 28.13		M	3.4	TK	5.0	B		10	4	7	2.5	45	LIN04
2002 03 28.41	xs	M	3.4	TJ	5.0	B		12	& 6	7	&2	19	NAG08
2002 03 28.43		S	3.4	AA	4.0	B		8		7		50	MOM
2002 03 28.44		B	2.6	AA	5.0	B		7	10	7	3	30	SOW
2002 03 28.76		M	3.2	TT	5.0	B		10	6	8	2	30	LEH
2002 03 28.77		M	3.0	TT	0.8	E		1	10	8/			LEH
2002 03 28.77	a	O	3.2	TT	0.8	E		1	10	6	1.1		ZNO
2002 03 28.78		B	3.4	S	3.0	B		6	7.5	7	2.0		KUB
2002 03 28.78	a	B	2.9	TT	0.8	E		1	12	6/			HOR02
2002 03 28.78	a	M	3.4	TT	5.0	B		7	7	6	1.7		ZNO
2002 03 28.79		B	2.7	TI	0.8	E		1	10	8	1.0	20	CER01
2002 03 28.79		M	2.7	TI	5.0	B		10	7	8	2.5	20	CER01
2002 03 28.79		S	3.4	TT	6.0	B		20	5	7/	1	50	RES
2002 03 28.79	a	B	3.1	TT	5.0	B		10		8	3.3	24	HAS02
2002 03 28.79	a	M	3.1	TT	8.0	B		10	6	8	4.5	40	HOR02
2002 03 28.81		B	3.4	YG	5.0	B		7	4	8	2.1	30	GRA04
2002 03 28.81		I	3.3	YG	0.7	E		1			1		GRA04
2002 03 28.81		S	3.4	AA	5.0	B		20	7	6	2.0	37	DIE02
2002 03 28.81	a	B	3.2	TJ	5.0	B		7	8	8	4.3	34	DIJ
2002 03 28.81	a	I	3.1	TJ	0.8	E		1		7			MEY
2002 03 28.81	a	S	3.2	S	3.0	B		4	& 5	8	&3	30	BUS01
2002 03 28.82		B	3.5	TI	5.0	B		7	5	7	0.4	10	SER02
2002 03 28.82		B	3.8	TT	8.0	B		11	5	8	1	24	WAR02
2002 03 28.82		M	3.6	TT	7.0	B		16	5	6	0.9	38	TAY
2002 03 28.82	&	M	3.7	TJ	5.0	B		10	& 8	7/	&3		COM
2002 03 28.82	a	B	3.3	TT	5.0	B		7		8	3.5	30	BOU
2002 03 28.82	a	S	2.9	AA	5.0	B		10	13	7	2.5	28	ZAN01
2002 03 28.82	a	S	3.6	TT	0.0	E		1		8			SCH04
2002 03 28.84	!	B	3.6	HI	5.0	B		7	4	8			SHA02
2002 03 28.84	!	B	3.7	HI	8.0	B		10	4	8	1.3	25	SHA02
2002 03 29.01		B	3.6	TJ	8.0	B		20		6/	&2.5		GRE
2002 03 29.16		B	3.5	YG	5.0	B		7	3.5	8	0.5		GRA04
2002 03 29.16		N	7.0:	TK	20.3	T	10	100	3.5	7			GRA04

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DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 29.70		M	3.5	S	7	R	4	12	4	8	3.3	30	SHU
2002 03 29.72		B	3.7	AA	6.0	B		20	9	7	1.5	40	KOS04
2002 03 29.73	a	S	3.3	S	5.0	B		7	10	3	3		FED03
2002 03 29.76		S	2.6	SP	5.0	B		7					GOL
2002 03 29.77		M	3.2	TT	5.0	B		10	6	8	4	20	LEH
2002 03 29.77	a	M	3.2	TT	5.0	B		7	9	7	3.5		ZNO
2002 03 29.78		M	3.0	TT	0.8	E		1	10	8/	2	20	LEH
2002 03 29.78	a	B	2.8	TT	0.8	E		1	11	7/	3	30	HOR02
2002 03 29.79	a	B	3.0	TT	5.0	B		10	3.0	6	4.6	20	HAS02
2002 03 29.79	a	I	3.0	TT	0.8	E		1					HAS02
2002 03 29.79	a	M	3.0	TT	8.0	B		10	7	8	5.5	30	HOR02
2002 03 29.79	a	O	3.1	TT	0.8	E		1	10	8	1.5		ZNO
2002 03 29.80		E	4.0	AA	8	R	10	40	9	D4	2.5		ROM
2002 03 29.80		I	3.2	TI	0.0	E		1			1		KYS
2002 03 29.80		M	3.3	TI	5.0	B		7	8	8	5		KYS
2002 03 29.80		S	3.1	TT	6.0	B		20	5	7/	2.5	20	RES
2002 03 29.80	a	I	3.3	TJ	0.8	E		1		8			MEY
2002 03 29.80	a	S	3.1	AA	5.0	B		10	13	7	1.1	13	ZAN01
2002 03 29.81		B	3.4	HV	5.0	B		7	5	8			BIV
2002 03 29.81		S	3.5	AA	5.0	B		20	8	6	2.0	37	DIE02
2002 03 29.81	a	B	3.3	HV	6.3	B		9	6	S8	&3.0	25	KAM01
2002 03 29.81	a	S	3.3	S	3.0	B		8	& 5	7/	>2	20	BUS01
2002 03 29.82		S	3.6	TT	4.0	B		8	4	6	0.9	41	TAY
2002 03 29.82	&	S	3.7	TJ	5.0	B		10		7	&5		COM
2002 03 29.82	a	B	3.2	TJ	5.0	B		7		8	3.9	21	DIJ
2002 03 29.82	a	B	3.2	TT	5.0	B		7		7/	4.4	28	BOU
2002 03 29.82	a	I	3.2	TT	0.7	E		1					BOU
2002 03 29.82	a	S	3.5	TT	0.0	E		1		8			SCH04
2002 03 29.83		B	3.4	YG	5.0	B		7	4	7/	3.0	24	GRA04
2002 03 29.83		I	3.3	YG	0.7	E		1			2		GRA04
2002 03 29.83	!	B	3.5	HI	5.0	B		7	4	8			SHA02
2002 03 29.83	!	B	3.5	HI	8.0	B		10	4	8	1.2	15	SHA02
2002 03 30.13		M	3.3	TK	5.0	B		10	4	7	4.0	45	LIN04
2002 03 30.15		S	3.0	TT	6.0	B		20	5	8	3	10	RES
2002 03 30.42	xs	M	3.4	TJ	3.5	B		7	& 6	7	&2.5	21	NAG08
2002 03 30.42	x	M	3.2	HV	8.0	B		11	4	7	2.3	30	MIT
2002 03 30.43	x	M	3.0	HV	3.5	B		7		7	2.8	30	MIT
2002 03 30.44	xa	M	3.4	TK	3.5	B		7		7	1.4	20	YOS02
2002 03 30.73		B	3.6	AA	6.0	B		20	10	7	2.0	40	KOS04
2002 03 30.73		M	3.4	HD	7	R	4	12	5	8	5	29	SHU
2002 03 30.76		S	2.6	SP	5.0	B		7					GOL
2002 03 30.77		M	3.3	TT	5.0	B		10	6	8	5	20	LEH
2002 03 30.78		M	3.2	TT	0.8	E		1	10	8/	3	20	LEH
2002 03 30.78	a	B	2.8	TT	0.8	E		1	14	7	2	25	HOR02
2002 03 30.78	a	M	3.2	TT	5.0	B		7	7	8	3.2		ZNO
2002 03 30.79		B	2.8	TI	0.8	E		1	10	7	3.0	25	CER01
2002 03 30.79		M	2.9	TI	5.0	B		10	12	7	5.5	25	CER01
2002 03 30.79	a	M	3.0	TT	8.0	B		10	7	8	6.5	25	HOR02
2002 03 30.81		E	3.8	AA	8	R	10	40	10	D4	3.5		ROM
2002 03 30.81		M	3.3	TI	5.0	B		7	8	8	8		KYS
2002 03 30.82		S	3.2	TT	6.0	B		20	4	8	3	15	RES
2002 03 30.83		B	3.9	S	7.0	B		10	7	8	2.5	5	MAR02
2002 03 30.83		S	3.4	HV	5.0	B		7	5	7	2.5	15	BIV
2002 03 30.85		S	3.2	TJ	5.0	B		7	4	7	4	20	GON05
2002 03 30.88		B	3.5	YG	5.0	B		7	5	7	2.7	30	GRA04
2002 03 31.13		M	3.3	TK	5.0	B		10	4	7	4.5	40	LIN04
2002 03 31.16		S	3.3	AA	5.0	B		7	4	7/	2.5	40	SPR
2002 03 31.82		M	3.2	TT	0.8	E		1	10	8/	1	20	LEH
2002 03 31.82		M	3.3	TT	5.0	B		10	6	8	4	20	LEH
2002 03 31.83		B	3.5:	TT	8.0	B		11	6	8	3.6	23	WAR02
2002 03 31.83		B	3.9	S	7.0	B		10	7	7/	2	355	MAR02
2002 04 01.42	xs	M	3.6	TJ	5.0	B		12	& 6	7	&2	10	NAG08
2002 04 01.76		M	3.5	AA	0.0	E		1	6	9	3	18	NEV
2002 04 01.78		M	3.2	TT	0.8	E		1	8	8/			LEH
2002 04 01.78		M	3.3	TT	5.0	B		10	5	8	3	20	LEH

Comet 153P/2002 C1 (Ikeya-Zhang) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 01.79		B	3.0	TI	0.8	E		1	10	7	2.0	23	CER01
2002 04 01.79		M	2.9	TI	5.0	B		10	10	7	3.3	23	CER01
2002 04 01.79	a	B	3.2	TT	5.0	B		10			4.8	14	HAS02
2002 04 01.80		I	3.4	TI	0.0	E		1			1		KYS
2002 04 01.80		M	3.4	S	15	L	5	30	5	8	2.9	26	SHU
2002 04 01.80		M	3.4	TI	5.0	B		7	7	8	6		KYS
2002 04 01.81		S	3.4	TT	6.0	B		20	4	8	3	15	RES
2002 04 01.81	a	S	3.2	AA	5.0	B		10	13	6	0.5	23	ZAN01
2002 04 01.82	s	B	3.4	HV	6.3	B		9	5	S8	4.0	18	KAM01
2002 04 01.83		B	3.3	TJ	5.0	B		7		7	4.9	21	DIJ
2002 04 01.83		B	3.3	TT	5.0	B		7		7/	4.6	21	BOU
2002 04 02.01		B	3.7	Y	5.0	B		12		7	&4		GRE
2002 04 02.02		M	3.2	YG	5.0	B		10	10	D5	4	330	TOL
2002 04 02.18		S	3.4	AA	5.0	B		7	5	7/	2.5	30	SPR
2002 04 02.41	xs	M	3.7	TJ	5.0	B		12	& 6	6/	&1	0	NAG08
2002 04 02.78		B	3.5	TT	5.0	B		10			3.3	7	HAS02
2002 04 02.78		M	3.4	TT	0.8	E		1	8	8/			LEH
2002 04 02.78		M	3.5	TT	5.0	B		10	5	8	3	20	LEH
2002 04 02.78	a	B	3.0	TT	0.8	E		1	15	6/	1.5	10	HOR02
2002 04 02.78	a	M	3.4	TT	5.0	B		7	9	6/	3.4		ZNO
2002 04 02.79	a	M	3.3	TT	8.0	B		10	8	8	6	10	HOR02
2002 04 02.80		I	3.7	TJ	0.8	E		1		7	5		MEY
2002 04 02.81		S	3.4	TT	6.0	B		20	5	8	4	10	RES
2002 04 02.83		B	3.2	TJ	5.0	B		7		8	5.0	22	DIJ
2002 04 02.83	a	S	3.6	AA	5.0	B		10	9	7	0.9	23	ZAN01
2002 04 02.83	s	B	3.3	TT	5.0	B		7		7/	4.5	17	BOU
2002 04 03.16		S	3.6	HV	5.0	B		7	5	8	1.5	10	BIV
2002 04 03.17		S	3.5	AA	5.0	B		7	5	7/	1.5	30	SPR
2002 04 03.73		B	3.6	AA	6.0	B		20	10	6	3.0	30	KOS04
2002 04 03.76		M	3.2	AA	0.0	E		1	7	9	4	14	NEV
2002 04 03.78		M	3.5	TT	5.0	B		10	6	8	5	15	LEH
2002 04 03.78	a	M	3.4	TT	5.0	B		7	8	6/	3.6		ZNO
2002 04 03.79		M	3.4	TI	5.0	B		7	7	8	7		KYS
2002 04 03.79		M	3.4	TT	0.8	E		1	10	8/	2	15	LEH
2002 04 03.79	a	M	3.3	TT	8.0	B		10	9	7/	7	5	HOR02
2002 04 03.80		I	3.3	TI	0.0	E		1			4		KYS
2002 04 03.80	x\$	M	4.0	TJ	5.0	B		12	& 6	7	3.5	8	NAG08
2002 04 03.80	a	B	2.9	TT	0.8	E		1	15	6	4	10	HOR02
2002 04 03.81		B	3.7	HV	5.0	B		7	7	7	2.0	10	BIV
2002 04 03.81		S	3.4	AA	5.0	B		20	6	7	1.5	15	DIE02
2002 04 03.82		B	2.9	TI	0.8	E		1	10	7	1.0	18	CER01
2002 04 03.82		B	3.5	HV	0.0	E		1	10	7			BIV
2002 04 03.82		M	3.0	TI	5.0	B		10	12	7	5.0	18	CER01
2002 04 03.82	a	S	3.5	TT	4.0	B		8	&10	6/	&3	10	SCH04
2002 04 03.83		B	3.2	TJ	5.0	B		7		8	6.0	13	DIJ
2002 04 03.83		M	3.0	S	15	L	5	30	6	7	2.7	11	SHU
2002 04 03.83	!	B	3.5	HI	8.0	B		10	8	7	2.9	10	SHA02
2002 04 03.83	a	B	3.4	TT	5.0	B		7	6	7/	5.1	11	BOU
2002 04 03.83	a	S	3.6	AA	5.0	B		10	9	7	6	15	ZAN01
2002 04 03.84		B	3.6	YG	5.0	B		7	5	8	2.5	13	SKI
2002 04 03.84	!	B	3.5	HI	5.0	B		7	6	8			SHA02
2002 04 03.85		M	3.8	YG	5.0	B		7	6	6/	4.2	7	GRA04
2002 04 03.86		S	3.7	HV	5.0	B		7	8	7	3.0	15	BIV
2002 04 03.86	&	S	3.5	TJ	5.0	B		10		6/	&4.5		COM
2002 04 04.06		M	3.3	AA	0.0	E		1	7	9	5	14	NEV
2002 04 04.17		S	3.5	HV	5.0	B		7	6	7	2.0	10	BIV
2002 04 04.42		S	3.5	AA	4.0	B		8	5	6			MOM
2002 04 04.78	a	M	3.3	TT	5.0	B		7	10	6	4.2		ZNO
2002 04 04.79		M	3.4	TT	5.0	B		10	7	7/	10	15	LEH
2002 04 04.79	a	M	3.4	TT	8.0	B		10	8	7/	7	5	HOR02
2002 04 04.80		B	2.9	TI	0.8	E		1	15		2.0	14	CER02
2002 04 04.80		B	2.9	TI	0.8	E		1	15	7	4.0	14	CER01
2002 04 04.80		I	3.3	TI	0.0	E		1			4		KYS
2002 04 04.80		M	3.0	TI	5.0	B		10	12	7	6.5	14	CER01
2002 04 04.80		M	3.3	TT	0.8	E		1	15	8	6	15	LEH

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DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 04.80		M	3.4	TI	5.0	B		7	8	8	8		KYS
2002 04 04.80	x\$	M	4.0	TJ	3.5	B		7	& 6	7	4.2	3	NAG08
2002 04 04.80	a	B	3.0	TT	0.8	E		1	16	6/	4	5	HOR02
2002 04 04.80	a	B	3.5	TT	5.0	B		10	6.4	6	3.1	0	HAS02
2002 04 04.80	a	I	3.4	TT	0.8	E		1					HAS02
2002 04 04.82		S	3.6	HV	0.0	E		1	10	7			BIV
2002 04 04.82		S	3.8	HV	5.0	B		7	7	7	3.0	5	BIV
2002 04 04.82	a	B	3.6	TJ	5.0	B		7	3	8	3.5		JOH01
2002 04 04.82	a	S	3.4	S	3.0	B		8	& 5	7/	>3		BUS01
2002 04 04.82	a	S	3.7	TT	4.0	B		8	& 8	7	&3	0	SCH04
2002 04 04.82	a	S	3.8	TT	0.0	E		1		7			SCH04
2002 04 04.83		B	3.3	TJ	5.0	B		7	10	7/	6.0	4	DIJ
2002 04 04.83		I	3.4	TJ	0.7	E		1		8	4.0	4	DIJ
2002 04 04.83	a	B	3.4	TT	5.0	B		7	7	7/	6.5	2	BOU
2002 04 04.83	a	S	3.7	AA	5.0	B		10	8	6	8	15	ZAN01
2002 04 04.83	s	B	4.2	TI	5.0	B		7	5	7	0.7	0	SER02
2002 04 04.84	!	B	3.6	HI	5.0	B		7	8	7	2.3	5	SHAO2
2002 04 04.84	&	S	3.3	TJ	0.0	E		1		7	&6		COM
2002 04 04.84	a	I	3.3	TT	0.7	E		1					BOU
2002 04 04.85		S	3.4	TJ	5.0	B		7	4	7	3	10	GON05
2002 04 05.01		B	3.8	TJ	5.0	B		12		5			GRE
2002 04 05.09		B	2.9	TI	0.8	E		1	15	7	5.0	14	CER01
2002 04 05.12		S	3.1	TT	0.7	E		1	& 3	8/		15	RES
2002 04 05.12		S	3.2	TT	6.0	B		20	5	7	5.5	15	RES
2002 04 05.13	a	B	3.8	TT	5.0	B		10	5.4	5	3.1	8	HAS02
2002 04 05.17		S	3.7	HV	5.0	B		7	7	7	2.5	0	BIV
2002 04 05.42	x\$	M	4.0	TJ	5.0	B		12	& 7	7	&4	358	NAG08
2002 04 05.79		M	3.4	TT	5.0	B		10	6	8	4	0	LEH
2002 04 05.79	a	M	3.4	TT	8.0	B		10	9	7	4	0	HOR02
2002 04 05.80		M	3.3	TT	0.8	E		1	8	8/			LEH
2002 04 05.80		M	3.4	TI	5.0	B		7	7	8	5		KYS
2002 04 05.80	a	B	3.9	TJ	5	R		8	8	8/	1.6	0	YOS04
2002 04 05.80	a	I	3.3	TJ	0.0	E		1		8/	1.0	5	YOS04
2002 04 05.81		S	3.5	AA	5.0	B		20	6	7	1.5	5	DIE02
2002 04 05.82		B	3.5	TJ	5.0	B		10		S7			MEY
2002 04 05.82	a	B	3.6	TJ	5.0	B		7	3	8	3		JOH01
2002 04 05.82	a	S	3.4	S	3.0	B		8	& 5	7/	>3.5	358	BUS01
2002 04 05.83		M	3.3	TT	5.0	B		7	8	7/	5.7	1	BOU
2002 04 05.84		B	3.4	TJ	5.0	B		7		7/	7.0	2	DIJ
2002 04 05.84	!	B	3.6	HI	5.0	B		7	8	7	1.5	0	SHAO2
2002 04 05.84	a	B	4.2	HV	6.3	B		9	& 4	S8	2.8	4	KAM01
2002 04 05.84	a	S	3.8	AA	5.0	B		10	12	6	8	0	ZAN01
2002 04 05.85		S	3.7	HS	6.3	B		9	7	7	8	355	AND01
2002 04 05.86	!	G	3.0	TT	0.0	E		1			4	10	KAR02
2002 04 05.89		B	3.7	YG	5.0	B		7	5	7	4.9	3	GRA04
2002 04 05.89		I	3.7	YG	0.7	E		1			4		GRA04
2002 04 05.89	!	B	3.9	TT	8.0	B		11		8	10	0	WAR02
2002 04 06.11		B	3.5	S	5.0	B		7		6	2	3	KLAO2
2002 04 06.11	a	B	3.1	TT	0.8	E		1	15	6	2	0	HOR02
2002 04 06.13		S	3.5	AA	5.0	B		20	6	7	2.0	5	DIE02
2002 04 06.13	a	B	3.8	TT	5.0	B		10	5.3	5	3.7	3	HAS02
2002 04 06.13	a	I	3.6	TT	0.8	E		1			1.5		HAS02
2002 04 06.14	!	B	4.0	HI	5.0	B		7	7	7	5.6	0	SHAO2
2002 04 06.15		S	3.7	HV	0.0	E		1	10	7	1.5	0	BIV
2002 04 06.17		B	3.8	HV	5.0	B		7	7	7	4.0	0	BIV
2002 04 06.79	a	B	3.2	TT	0.8	E		1	17	6			HOR02
2002 04 06.80	a	B	3.8	TT	5.0	B		10					HAS02
2002 04 06.80	a	M	3.5	TT	8.0	B		10	9	7/	4.5	0	HOR02
2002 04 06.82	a	B	3.7	TJ	5.0	B		7	2	8	3		JOH01
2002 04 06.82	a	S	3.3	S	3.0	B		8	& 6	7	>3.5	355	BUS01
2002 04 06.82	a	S	3.8	TT	0.0	E		1		8			SCH04
2002 04 06.83		S	3.8	HV	5.0	B		7	8	7	3.0	0	BIV
2002 04 06.84		S	3.6	HV	0.0	E		1	10	7	5.0	0	BIV
2002 04 06.85	a	S	3.6	AA	5.0	B		10	12	7	8	0	ZAN01
2002 04 06.86		B	3.8	YG	5.0	B		7	6	7	7.6	2	GRA04

Comet 153P/2002 C1 (Ikeya-Zhang) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 06.86		I	3.7	YG	0.7	E	1			4		GRA04
2002 04 06.86		S	3.4	TT	6.0	B	20	6	7	4	10	RES
2002 04 06.88		B	3.7	HV	5.0	B	7	8	7	6.0	0	BIV
2002 04 07.07		B	3.6	S	5.0	B	7		7	2	360	KLA02
2002 04 07.14		B	3.8	TT	5.0	B	10	6.5	6	3.6	6	HAS02
2002 04 07.14		S	3.7	HV	0.0	E	1	10	6	6.0	0	BIV
2002 04 07.14		! B	4.1	TK	5.0	B	7	6	7	6.3	0	SHAO2
2002 04 07.14		! I	3.8	TK	0.7	E	1	10	8	3.5	0	SHAO2
2002 04 07.15		B	3.7	HV	5.0	B	7	10	7	6.0	355	BIV
2002 04 07.43	xa	M	3.9:	HV	8.0	B	11	7	6/	&2	0	MIT
2002 04 07.79	a	B	3.4	TT	0.8	E	1	18	6	3	0	HORO2
2002 04 07.79	a	M	3.2	TT	5.0	B	7	12	5/	2.8		ZNO
2002 04 07.79	x	B	4.0	HV	5.0	B	7	6.4	7	1.3	355	WAT01
2002 04 07.80		M	3.4	TT	5.0	B	10	6	8	4	0	LEH
2002 04 07.80		M	3.6	TI	5.0	B	7	8	7	7		KYS
2002 04 07.80		S	3.8	AA	3.0	R	8	12	6	4.0	0	MOM
2002 04 07.80	a	M	3.7	TT	8.0	B	10	10	7	7	0	HORO2
2002 04 07.80	xa	S	3.8	TJ	0.0	E	1	&10	7	&4	355	NAG08
2002 04 07.81		B	2.9	TI	0.8	E	1	15				CERO2
2002 04 07.81		B	3.0	TI	0.8	E	1	15	7	2.0	2	CERO1
2002 04 07.81		I	3.5	TI	0.0	E	1			2		KYS
2002 04 07.81		I	3.6	TJ	0.8	E	1		S7			MEY
2002 04 07.81		M	3.2	TI	5.0	B	10	10	7	5.5	2	CERO1
2002 04 07.81		M	3.3	TT	0.8	E	1	8	8/			LEH
2002 04 07.82		B	3.7	TJ	5.0	B	10		7			MEY
2002 04 07.83		S	3.6	TT	6.0	B	20	6	7	3.5	10	RES
2002 04 07.84		! B	4.0	TK	5.0	B	7	8	7	3	350	SHAO2
2002 04 07.85	a	S	3.2	AA	5.0	B	10	10	6	2	350	ZAN01
2002 04 07.86		B	4.0	YF	3.0	R	8		7	&3		GRE
2002 04 07.87		B	3.8	YF	0.0	E	1			&1		GRE
2002 04 08.09	a	B	3.4	TT	0.8	E	1	16	6	3	0	HORO2
2002 04 08.09	a	S	3.5	TJ	5.0	B	7	10	6/	6.3	1	DIJ
2002 04 08.10		B	2.8	TI	0.8	E	1	15	7	7.5	1	CERO1
2002 04 08.10		B	3.5	TT	5.0	B	7	8	7	5.5	355	BOU
2002 04 08.13	a	S	3.6	TT	4.0	B	8	& 5	7/	&5	350	SCH04
2002 04 08.13	a	S	3.9	TT	0.0	E	1		7/	>1	350	SCH04
2002 04 08.15		B	3.8	HV	5.0	B	7	9	6	3.0	355	BIV
2002 04 08.15		S	3.7	HV	0.0	E	1	10	6			BIV
2002 04 08.79		M	3.2	TT	5.0	B	10	6	8	3	0	LEH
2002 04 08.79	a	M	3.3	TT	5.0	B	7	12	5/	2.6		ZNO
2002 04 08.80		M	3.1	TT	0.8	E	1	8	8/			LEH
2002 04 08.80	a	B	3.9	TT	5.0	B	10					HAS02
2002 04 08.81		M	3.6	TI	5.0	B	7	8	6/	2		KYS
2002 04 08.83		B	3.8	HV	5.0	B	7	7	7	2.0	355	BIV
2002 04 08.83		S	3.6	TT	6.0	B	20	5	6/	3	355	RES
2002 04 08.84		! S	4.0	TK	8.0	B	20	8	7	0.3	335	SHAO2
2002 04 08.84	s	B	4.0	HV	6.3	B	9	6	S8	&2.3	355	KAM01
2002 04 09.08		B	3.1	TI	0.8	E	1	15	7	7.0	356	CERO1
2002 04 09.08		M	3.2	TI	5.0	B	10	10	7	8.5	356	CERO1
2002 04 09.87		! I	3.9	TT	0.0	E	1			2	350	WAR02
2002 04 09.88		! B	4.0	TT	8.0	B	11	7	7/	3.5	350	WAR02
2002 04 09.88		! S	3.9	HI	5.0	B	7	8	7			SHAO2
2002 04 09.89		! S	4.0	HI	8.0	B	20	8	6	0.9	345	SHAO2
2002 04 10.10		M	3.6	TT	5.0	B	7	9	7	5.3	347	BOU
2002 04 10.10	s	M	3.5	S	15	L	5	42	8	4.5	344	SHU
2002 04 10.14		B	3.9	HV	5.0	B	7	7	7			BIV
2002 04 10.84		B	3.9	HV	5.0	B	7	10	5	1.5	350	BIV
2002 04 11.14		B	3.8	HV	5.0	B	7	8	6	2.5	345	BIV
2002 04 11.85		S	4.2	HS	6.3	B	9	7	7	3.5	340	AND01
2002 04 11.89		! S	4.1	HI	5.0	B	7	8	7			SHAO2
2002 04 11.89		! S	4.1	HI	8.0	B	20	8	7	0.3	335	SHAO2
2002 04 12.05		I	3.9	HS	1.0	E	1			4.5		HOE
2002 04 12.15		B	3.9	HV	5.0	B	7	10	6	1.5	345	BIV
2002 04 12.78	xa	S	3.5	TJ	0.0	E	1	&10	7	&5	325	NAG08
2002 04 12.79		S	3.8	AA	4.0	B	8	15	6	6.0	330	MOM

Comet 153P/2002 C1 (Ikeya-Zhang) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 12.80	xs	M	3.7	HV	3.5	B		7					TSU02
2002 04 12.81		B	3.4	AA	5.0	B		7	20	6			SOW
2002 04 12.95		M	3.7	S	7	R	4	12	5	6	5	335	SHU
2002 04 13.12		S	4.0	HI	5.0	B		7	6	7	3.3	335	SHA02
2002 04 13.12		S	4.2	HI	8.0	B		20	6	6	3.3	335	SHA02
2002 04 13.76	xa	M	3.9	HV	3.5	B		7	10	7	2.7	335	MIT
2002 04 13.78		S	3.6	AA	4.0	B		8		6	3	330	MOM
2002 04 13.79	xa	M	3.4	TK	3.5	B		7	&11	7	3.5	340	YOS02
2002 04 13.79	xs	M	3.8:	HV	3.5	B		7					TSU02
2002 04 13.83		S	3.5	TT	6.0	B		20	5	6			RES
2002 04 13.89	!	S	3.9	HI	5.0	B		7	9	7	2.1	340	SHA02
2002 04 13.90		B	3.8	HV	0.0	E		1	10	5	2.0	330	BIV
2002 04 13.90		B	4.0	HV	5.0	B		7	11	6	4.0	330	BIV
2002 04 14.12		B	4.0	HV	5.0	B		7	10	6	6.0	335	BIV
2002 04 14.12	a	G	4.3	TI	0.0	E		1	10	7	0.8	340	SER02
2002 04 14.13		B	3.8	HV	0.0	E		1	10	5	4.0	330	BIV
2002 04 16.09		S	4.1	HI	5.0	B		7	9	7			SHA02
2002 04 16.09		S	4.2	HI	8.0	B		20	9	6	0.9	320	SHA02
2002 04 16.11	a	B	4.0	TT	5.0	B		10	6.5	4	2.0	320	HAS02
2002 04 16.13		B	4.3:	HV	5.0	B		7	12	6	1.5	320	BIV
2002 04 16.17		I	4.0	TJ	0.0	E		1			2		GON05
2002 04 16.17		S	3.9	TJ	5.0	B		7	8	7	2.5	320	GON05
2002 04 16.84		B	4.3	TT	8.0	B		11		7			WAR02
2002 04 16.85		S	3.7	TT	6.0	B		20	7	6	2.0	330	RES
2002 04 16.86		S	4.1	HI	8.0	B		20	5	6	0.3	330	SHA02
2002 04 17.09		B	3.9	S	5.0	B		7	6	6	2	324	KLA02
2002 04 17.12		S	4.2	HI	5.0	B		7	7	7			SHA02
2002 04 17.13		S	4.3	HI	8.0	B		20	7	6	1.2	320	SHA02
2002 04 17.62	x\$	S	4.1	TJ	3.5	B		7	10	7	2.0	305	NAG08
2002 04 17.84		S	4.2	TT	6.0	B		20	7	5	1	320	RES
2002 04 17.98		M	4.2	HD	15	L	5	42	16	6	1.2	297	SHU
2002 04 18.75		S	4.1	AA	4.0	B		8	10	6	1	320	MOM
2002 04 18.79	x	B	4.2	HV	5.0	B		7	13	5/	>1	315	WAT01
2002 04 18.86		S	4.4	TT	6.0	B		20	8	4	2	320	RES
2002 04 18.98		M	4.2	HD	15	L	5	30	10	6	1.3	306	SHU
2002 04 19.79	x	B	4.3	HV	5.0	B		7	13	6	>1	315	WAT01
2002 04 19.85		S	4.4	HI	8.0	B		20	7	5			SHA02
2002 04 20.00		I	4.1	YG	0.7	E		1					GRA04
2002 04 20.00		M	4.1	YG	5.0	B		7	9	5/	1.3	310	GRA04
2002 04 20.15		I	4.2	TJ	0.0	E		1					GON05
2002 04 20.15		S	4.2	TJ	5.0	B		7	10	7	2	305	GON05
2002 04 20.35		B	4.1	Y	0.0	E		1					GRE
2002 04 20.36		B	4.3	Y	5.0	B		12	&12	5	&2.7		GRE
2002 04 20.36		S	4.2:	Y	5.0	B		12	&12	5	&2.7		GRE
2002 04 20.53		M	4.2	TK	5.0	B		10	11	5	1.0	290	LIN04
2002 04 20.84		B	4.1	S	7.0	B		10	7	5	0.5	330	MAR02
2002 04 20.88		S	4.4	TJ	8.0	B		11	8	7	0.5	310	GON05
2002 04 21.02		B	4.1	YG	0.7	E		1					GRA04
2002 04 21.02		M	4.2	YG	5.0	B		7	10	6	3.6	297	GRA04
2002 04 21.15		I	4.3	TJ	0.0	E		1					GON05
2002 04 21.15		S	4.3	TJ	5.0	B		7	11	7	2.5	300	GON05
2002 04 21.74	x	S	4.3	TJ	0.0	E		1	&20	8			NAG08
2002 04 21.74	x	S	4.4	TJ	3.5	B		7	15	7	1.5	290	NAG08
2002 04 21.84		S	4.6	TT	6.0	B		20	7	4	1	305	RES
2002 04 21.86		S	4.1	HI	8.0	B		20	9	5			SHA02
2002 04 21.88		S	4.3	TJ	8.0	B		11	10	7	0.5	300	GON05
2002 04 22.12		B	4.2	TT	8.0	B		11	13	6	0.9	300	WAR02
2002 04 22.55		M	4.3	TK	5.0	B		10	13	5	2.5	290	LIN04
2002 04 22.78	x	B	4.6	HV	5.0	B		7	14	6	1.3	270	WAT01
2002 04 22.83		M	4.5	TT	5.0	B		10	10	7	2		LEH
2002 04 22.86		S	4.3	HS	8.0	B		20	10	6	1.0	280	AND01
2002 04 22.88		S	4.4	TJ	8.0	B		11	8	7	0.5	300	GON05
2002 04 22.92		S	4.6	TT	6.0	B		20	8	3	1		RES
2002 04 23.12		S	4.2	TJ	5.0	B		7	10	7			GIA01
2002 04 23.85		S	4.8	TT	6.0	B		20	8	3/	1	290	RES

Comet 153P/2002 C1 (Ikeya-Zhang) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 23.87		S	4.8	HI	8.0	B		20	8	5			SHA02
2002 04 23.99		B	4.4	YG	0.7	E		1					GRA04
2002 04 23.99		M	4.5	YG	5.0	B		7	11	5	1.7	292	GRA04
2002 04 24.34		B	4.5	Y	3.5	B		7	&14	5/			GRE
2002 04 24.34		S	4.3	Y	3.5	B		7	&14	5/			GRE
2002 04 24.35		B	4.3	Y	0.0	E		1					GRE
2002 04 24.82		M	4.6	TT	5.0	B		10	10	7	2		LEH
2002 04 24.85		S	4.9	TT	6.0	B		20	8	4	1	290	RES
2002 04 24.87		S	4.8	HI	8.0	B		20	8	6	0.9	300	SHA02
2002 04 24.88		S	4.7	HI	5.0	B		7	9	6			SHA02
2002 04 24.94		M	4.7	TT	5.0	B		7	15	5/	2	285	BOU
2002 04 24.96		S	4.6	TJ	5.0	B		7	15	5/	1.7	284	DIJ
2002 04 25.03		I	4.5	YG	0.7	E		1					GRA04
2002 04 25.03		M	4.6	YG	5.0	B		7	12	5	1.5	298	GRA04
2002 04 25.50		M	4.4	TK	5.0	B		10	8	5	0.5	290	LIN04
2002 04 25.75	x	M	4.8	TK	3.5	B		7	15	5/	0.6	280	YOS02
2002 04 25.85		S	4.5	TT	8.0	B		20	10	6			AND01
2002 04 26.48		M	4.5	TK	5.0	B		10	9	4	0.3	300	LIN04
2002 04 26.87		S	4.7	HI	8.0	B		20	8	5	0.8	300	SHA02
2002 04 26.87		S	4.8	TJ	5.0	B		7	6	7			GIA01
2002 04 27.84		S	5.1	TT	6.0	B		20	6	3/	0.5	275	RES
2002 04 27.88		B	4.4	S	5.0	B		7	5	6	0.4	273	KLA02
2002 04 27.91		M	4.6	TT	5.0	B		10	15	7	2	260	LEH
2002 04 27.92		S	4.6	AA	8.0	B		20	10	6			FOG
2002 04 28.45	xa	S	4.4	TJ	5.0	B		12	14	6			NAG08
2002 04 28.50	xs	M	5.2	HV	8.0	B		11	12	4			MIT
2002 04 28.75	x	B	5.1	TJ	5.0	B		7	11	5/	0.7	250	WAT01
2002 04 28.86		S	4.6	HI	8.0	B		20	9	5	1.7	275	SHA02
2002 04 28.86		S	4.6	HI	8.0	B		20	9	5	1.7	275	SHA02
2002 04 28.86		S	5.0	TJ	5.0	B		7	10	6			GIA01
2002 04 28.89		B	4.7	TT	8.0	B		11	14	5/	1.0	260	WAR02
2002 04 28.89		S	4.8	TT	8.0	B		20	13	6	0.3	265	AND01
2002 04 29.83		M	4.6	TT	5.0	B		10	15	7	1	255	LEH
2002 04 29.86		M	4.6	S	7	R	4	17	10	6	5	240	SHU
2002 04 29.87		M	4.6	TT	5.0	B		7	15	6	3	260	BOU
2002 04 29.88		B	4.4	S	5.0	B		7	8	6	0.4	282	KLA02
2002 04 29.89		I	4.4	TJ	0.0	E		1					GON05
2002 04 29.89		S	4.4	TJ	5.0	B		7	12	6	2.5	260	GON05
2002 04 29.94		S	4.9	TT	6.0	B		20	8	4	1.5	250	RES
2002 04 29.95		S	4.5	TJ	5.0	B		7	15	6	2.1	255	DIJ
2002 04 29.96		S	4.8	HI	8.0	B		20	8	5	0.9	260	SHA02
2002 04 30.85		M	4.6	TT	0.8	E		1	30	7			LEH
2002 04 30.85		M	4.7	TT	5.0	B		10	20	6/	3	255	LEH
2002 04 30.99		S	4.8	TT	6.0	B		20	10	4/	1.7	250	RES

Comet C/1999 F1 (Catalina)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 15.83		S	[13.8	GA	41	L	4	200	! 0.5				PEA
2002 02 16.83		S	[13.8	GA	41	L	4	200	! 0.5				PEA

Comet C/1999 U4 (Catalina-Skiff)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 03.80		S	[14.0	HS	44.0	L	5	156					HAS02
2002 02 02.87		S	13.9	HS	31.0	J	6	143	0.5	1			DIJ
2002 02 02.87		S	13.9	HS	31.0	J	6	143	0.7	3/			BOU
2002 02 05.00		S	13.7	AC	41	L	5	121	0.7	2/			RES
2002 02 05.10		B	13.5:	HS	42	L	5	81	1	4			LEH
2002 02 08.99		S	14.8	HS	38	L	4	193	0.5				SAR02
2002 02 13.76		S	13.8	AC	41	L	5	121	0.7	3			RES
2002 02 14.93		S	13.9	HS	31.0	J	6	143	0.6	4			BOU
2002 02 15.10		B	13.7	HS	42	L	5	81	1.2	4			LEH
2002 02 15.89		S	13.9	HS	31.0	J	6	143	0.5	2/			DIJ
2002 02 15.89		S	13.9	HS	31.0	J	6	143	0.7	3			BOU

Comet C/1999 U4 (Catalina-Skiff) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 15.94		S	13.7	AC	41	L	5	262	0.7	3			RES
2002 02 16.10		B	13.7	HS	42	L	5	81	1.3	4			LEH
2002 03 04.80		B	13.7	HS	42	L	5	162	1	4			LEH
2002 03 05.80		B	13.9	HS	42	L	5	162	1	4			LEH
2002 03 08.83		B	14.2	HS	42	L	5	162	0.9	4			LEH
2002 03 10.83		B	14.3	HS	42	L	5	162	0.9	4			LEH
2002 03 11.88		B	14.6	HS	42	L	5	162	0.8	4			LEH
2002 03 12.93		B	14.6	HS	42	L	5	162	0.8	4			LEH

Comet C/2000 SV74 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 10 19.95	x	S	13.4	HS	30	L	4	191	0.6	d2/			GRA09
2001 11 10.91	x	S	12.6	HS	21	L	8	100	0.5	3			PAC03
2002 01 01.75		S	13.2	VB	33	L	5	150	0.5	3			SHA02
2002 01 04.74		M	12.6	HS	42	L	5	81	1	3			LEH
2002 01 04.83		S	13.0	AC	41	L	5	121	1.0	2/			RES
2002 01 04.88		S	13.1	AC	31.0	J	6	124	0.9	3/			BOU
2002 01 04.89		S	13.3	AC	31.0	J	6	124	0.5	2			DIJ
2002 01 13.78		S	13.0	AC	31.0	J	6	109	0.9	3/			BOU
2002 01 13.78		S	13.3	AC	31.0	J	6	109	0.6	2			DIJ
2002 01 14.78		S	13.0	AC	41	L	5	121	1.3	2/			RES
2002 01 15.82		S	13.0	VB	33	L	5	150					SHA02
2002 01 22.71		M	12.8	HS	42	L	5	81	1.2	3			LEH
2002 02 02.79		S	12.9	HS	31.0	J	6	143	0.7	2			DIJ
2002 02 02.79		S	13.2	HS	31.0	J	6	143	0.8	2/			BOU
2002 02 03.76		S	13.1	AC	41	L	5	121	1.0	2/			RES
2002 02 03.82		M	12.8	HS	42	L	5	81	1.4	3			LEH
2002 02 04.82		M	12.8	HS	42	L	5	81	1.3	3			LEH
2002 02 04.84		S	12.6	AC	41	L	5	121	1.5	2/			RES
2002 02 05.82		S	12.9	HS	30	R	20	230					SHA02
2002 02 13.75		S	13.2	AC	41	L	5	121	1.0	2/			RES
2002 02 14.77		M	12.8	HS	42	L	5	81	1.5	4			LEH
2002 02 14.90	a	S	13.1	AC	31.0	J	6	109	0.9	2/			BOU
2002 02 15.74		S	13.2	AC	41	L	5	262	1.2	2/			RES
2002 02 15.77		M	12.8	HS	42	L	5	81	1.4	4			LEH
2002 02 15.87	a	S	12.9	AC	31.0	J	6	109	1	2/			DIJ
2002 02 15.87	a	S	13.1	AC	31.0	J	6	109	0.9	2/			BOU
2002 02 16.79		S	13.0	AC	41	L	5	121	1.2	2/			RES
2002 02 17.80		S	13.2	AC	41	L	5	121	1.0	2/			RES
2002 02 19.73		S	13.1	AC	41	L	5	121	1.0	2/			RES
2002 03 02.76		S	13.0	AC	41	L	5	121	1.2	2/			RES
2002 03 04.76		M	12.7	HS	42	L	5	81	1.3	3			LEH
2002 03 05.76		M	12.7	HS	42	L	5	81	1.2	3			LEH
2002 03 08.79		M	12.9	HS	42	L	5	81	1.3	3/			LEH
2002 03 10.79		M	12.9	HS	42	L	5	81	1.3	3			LEH
2002 03 11.78		S	13.2	AC	41	L	5	121	1.2	2/			RES
2002 03 11.79		M	12.8	HS	42	L	5	81	1.4	3/			LEH
2002 03 12.78		M	12.8	HS	42	L	5	81	1.3	3/			LEH
2002 03 12.81		M	12.9	HS	35	L	5	158	1.3	3			HOR02
2002 03 13.79		M	13.1	HS	35	L	5	158	1.3	3			HOR02
2002 03 13.84		S	13.1	AC	25.4	J	6	115	0.8	3			BOU
2002 03 13.84		S	13.7	HS	25.4	J	6	115	0.8	1/			DIJ
2002 03 14.77		S	13.5	HS	38	L	4	193	0.9	3			SAR02
2002 03 18.79		S	12.8	AC	41	L	5	121	1.5	2/			RES
2002 03 21.05		S	12.9	AC	41	L	5	121	1.2	2			RES
2002 04 02.79		M	12.5	HS	42	L	5	81	1.2	3/			LEH
2002 04 03.81		S	13.0	AC	41	L	5	121	1.0	2/			RES
2002 04 04.82		M	12.1	HS	20	L	4	42	1.8	3/			LEH
2002 04 10.12	a	S	13.0	GA	25.4	J	6	143	0.7	2			BOU
2002 04 30.86		M	12.5	HS	20	L	4	42	1.5	3			LEH

Comet C/2000 WM1 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 09 21.98		S	11.8	HS	36	L	6	110	1.9	2			BAR06
2001 10 09.84	x	S	11.5:	TJ	25	L	6	108	1	1			SWI
2001 10 10.75	x	S	10.8	TT	21	L	8	100	2.3	3			PAC03
2001 10 10.84	x	S	11.6	TT	20	L	5	50	1.2	4			POW01
2001 10 11.82	x	S	11.7	TT	20	L	5	70	1.2	4			POW01
2001 10 11.82	x	S	11.8	TT	20	L	5	50	1.5	d4			BUR04
2001 10 14.82	x	S	11.0:	TJ	25	L	6	108	1.5	1			SWI
2001 10 14.87	x	S	9.6	TT	16.5	L	8	50	& 4	1/			FIL04
2001 10 15.84	x	S	10.8	TT	20	L	5	50	3.1	D4			POW01
2001 10 15.91	x	S	9.6	TT	16.5	L	8	50	& 4	1/			FIL04
2001 10 16.74		S	10.1	HS	36	L	6	90	2.3	4	0.1	273	BAR06
2001 10 16.79	x	S	10.3	TT	20	L	5	50	2.5	d3			POW01
2001 10 20.90	x	B	10.3	TJ	11	L	7	32	2.9	D4/			POW01
2001 10 20.91	x	B	10.5	TJ	11	L	7	32	2.6	D4			BUR04
2001 10 20.92	x	S	9.8	TT	16.5	L	8	50	& 4	2/			FIL04
2001 10 23.86	x	S	10.0	TT	11	L	7	32	5	5			POW01
2001 10 23.86	x	S	10.1	TT	11	L	7	32	4	4			BAR10
2001 10 23.86	x	S	10.2	TT	11	L	7	32	3.3	4			BUR04
2001 10 25.01	x	S	10.2	TT	16.5	L	8	50	& 5	4			FIL04
2001 10 25.02	x	M	10.8:	TJ	31.7	L	5	78	& 1.5	5	0.2		ADA02
2001 10 25.80	x	S	10.0	TJ	25	L	6	108	1.5	4			SWI
2001 10 25.84	x	S	11.9	TJ	35	L	6	150	& 0.5	d1			CHR
2001 10 25.98	x	S	10.0	TT	11	L	7	32	2.5	6/			BUR04
2001 10 25.98	x	S	10.1	TT	11	L	7	32	3.1	6			POW01
2001 10 26.08		S	10.8	TT	15.0	L	7	50	2.5	4			BEG01
2001 10 27.07		S	10.7	TT	15.0	L	7	50	2.5	3			BEG01
2001 10 28.12	x	S	10.3	TJ	35	L	6	105	& 1	d2			CHR
2001 11 03.72		M	9.4	HS	36	L	6	70	3	4			BAR06
2001 11 03.74		S	9.4	TJ	20.3	T	10	50	& 2.0	3/			KAM01
2001 11 04.76	x	B	8.7	TJ	35	L	6	150		d3			CHR
2001 11 05.72	x!	B	8.7	TJ	35	L	6	105	5	d3			CHR
2001 11 05.82	x	S	9.2:	TT	6.7	B		20	& 2	3			SCI
2001 11 05.94	x	S	9.2	TT	10.0	B		25	&12	2			FIL04
2001 11 07.74	*x	B	9.2	TT	15	L	5	32	5	5	&0.05	257	DUS
2001 11 07.91		S	9.7	AA	15.0	L	7	50	5.4	2			BEG01
2001 11 07.99	x	S	9.0:	TT	6.7	B		20	& 5	3			SCI
2001 11 09.67	x	B	9.2	TJ	20	L	5	50	4	D5			POW01
2001 11 09.83	x	B	8.0	TJ	8	R	7	35	4	s6	0.15	265	KWI
2001 11 09.84	x	S	8.2	TJ	5.0	B		12	5	3			SMY
2001 11 09.92	x	B	9.0	TT	6.7	B		20	& 3	4			SCI
2001 11 10.01	x	M	8.0:	TJ	6.0	B		20	& 8	4			ADA02
2001 11 10.19	x	B	8.9	TJ	20	L	5	50	5	D5			POW01
2001 11 10.75	x	B	8.7	TT	10.0	B		25	& 5	4/	&0.4	285	FIL04
2001 11 10.80	x	S	8.4	TT	9	L	10	30	13	3/			MAK02
2001 11 10.80	x!	B	8.3	TJ	35	L	6	105	6	D5	&10	m	CHR
2001 11 10.82	x	S	8.7	TT	6.0	B		30	11	4/			BUR04
2001 11 10.83	x	S	8.5	TT	5.0	B		10	8	4			BAR10
2001 11 10.83	x	S	8.5	TT	6.0	B		30	9.9	5			POW01
2001 11 10.83	x	S	8.8	TT	20	L	5	30	6	D5	0.06	274	BUR04
2001 11 10.84	x	S	8.6	TT	20	L	5	30	6.5	5/			POW01
2001 11 10.85	x	S	8.7	TT	20	L	5	10	6	4			BAR10
2001 11 10.88	x	S	8.0	TJ	5.0	B		12	8	3/			SMY
2001 11 10.89	x	S	7.8	TJ	5.0	B		7	6	3/			SMY
2001 11 10.89	x	S	8.8	TT	21	L	8	100	2.0	S2/	0.04	200	PAC03
2001 11 10.89	x	S	9.3:	TJ	8.0	B		10	&10	1	&0.17	260	SIK01
2001 11 10.91	x	B	9.5	TJ	25	L	5	47	6	d3/	0.18	220	BOH02
2001 11 10.93	x	B	8.4	TJ	18	L	7	58	& 5	4			WLO
2001 11 10.94	x	B	8.0	TJ	25	L	6	108	4	6			SWI
2001 11 10.94	x	S	9.3:	TT	6.7	B		20	& 3	3			SCI
2001 11 11.00	x	M	9.1	TT	30	L	4	96	2	S5	0.06	235	GRA09
2001 11 11.77	x	B	9.3	TT	15	L	5	32	3	5	&0.1	256	DUS
2001 11 11.96	x	B	8.8	TT	6.7	B		20	& 4	4			SCI
2001 11 12.83	x	B	7.5	TJ	6.0	B		30	9	D5			POW01
2001 11 13.08	x	B	8.4:	TT	15	L	5	32	4	4	&0.1	265	DUS
2001 11 13.80	x	B	7.3	TJ	6.0	B		30	10	D5			POW01

Comet C/2000 WM1 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 13.89		B	8.0	TI	7.6	L	10	35	10				CER01
2001 11 14.07	x	B	8.9	TT	15	L	5	32	4	5	&0.1	270	DUS
2001 11 14.81	x	S	8.3	TT	21	L	8	52	3.5	3	0.07	240	PAC03
2001 11 14.86	x	S	8.3	TT	9	L	10	80	3.9	3			PIL
2001 11 14.88	x	S	8.6	TT	9	L	10	30	9	4/	0.08	268	MAK02
2001 11 14.89		B	7.3	TI	5.0	B		10	16				CER01
2001 11 14.93	x	B	8.5	TT	10.0	B		25	& 7	5/	&0.05	295	FIL04
2001 11 15.76	x!	B	7.4	TJ	35	L	6	105	6	d5	&12 m		CHR
2001 11 15.85		B	7.2	TI	5.0	B		10	16				CER01
2001 11 15.91	x	B	8.0	TT	6.7	B		20	& 4	4	&0.08	260	SCI
2001 11 15.91		S	7.3	TJ	6.3	B		9	9	5			KAM01
2001 11 16.07	x	B	8.4	TT	15	L	5	32	4	4			DUS
2001 11 16.69	x	S	7.2	TJ	6.0	B		20	& 8	3			ADA02
2001 11 16.73	x	B	7.2	TJ	25	L	6	54	6	6			SWI
2001 11 16.77	x	B	7.5	TT	6.7	B		20	& 7	4	&0.23	285	SCI
2001 11 16.79	x	B	6.8	TJ	6.0	B		30	10	D5			POW01
2001 11 16.81	x	B	7.2	TJ	20	L	5	30	12	D5	0.2	313	POW01
2001 11 16.84	x	B	7.3	TJ	15	T	15	56	7	4/			WLO
2001 11 16.85	x	B	8.1	TT	15	L	5	32	5	5	&0.1	260	DUS
2001 11 16.87	x	S	7.8	TT	4.0	B		12	7	4			LEG
2001 11 16.90	x	B	7.9	TT	10.0	B		25	& 7	5	&0.45	290	FIL04
2001 11 16.99	x	B	7.2	TJ	5.0	B		7	14	S5			SPE01
2001 11 17.04	x	B	7.0	TJ	15	L	6	45	4	4/			WLO
2001 11 17.75	x	B	6.8	TJ	6.0	B		20	&12	4			ADA02
2001 11 17.76	x!	B	7.1	TJ	35	L	6	105	10	D6	&15 m		CHR
2001 11 17.77	x	B	7.0	TJ	5.0	B		7	12	S5			SPE01
2001 11 17.79	x	B	7.9	TT	15	L	5	32	& 8	5	&0.15	270	DUS
2001 11 17.79	x	S	8.0	AA	5.0	B		10	5	3			MAR12
2001 11 17.80	x	S	7.5	TT	11	L	7	32	9.5	s5			SAD
2001 11 17.84	x	S	7.3	TJ	4.0	B		12	8.2	3			LEG
2001 11 17.84	x	S	7.6	TT	20	L	6	30	8	4			WAL03
2001 11 17.91	x	B	6.8	TJ	25	L	6	54	8	6			SWI
2001 11 17.93	x	B	7.2	TT	6.7	B		20	& 5	4	&0.27	300	SCI
2001 11 17.94	x	B	6.9	TJ	6.0	B		20	10	3/			WLO
2001 11 18.00	x	B	7.9	TT	10.0	B		25	&10	5	&0.24	255	FIL04
2001 11 18.01	x	M	7.6	TT	25	L	5	31	6	D6			SKR
2001 11 18.83	x	B	6.2	TJ	5.0	B		7	14	D5			POW01
2001 11 18.85	x	S	7.8	TT	9	L	10	80	2.7	3/			PIL
2001 11 19.04	x	B	7.3	TT	15	L	5	32	& 9	5			DUS
2001 11 19.72	x	B	6.9	TT	6.0	B		30	9	5			BUR04
2001 11 19.75	x	B	6.3	TJ	6.0	B		30	18	D5			POW01
2001 11 19.79	x	B	7.2	TI	6.0	B		20	&12	4			SIW
2001 11 19.82	x	B	7.2	TT	6.7	B		20	&10	5	&0.75	300	SCI
2001 11 19.84	x	B	6.9:	TJ	5.0	B		7	& 9	4			SZC02
2001 11 19.85	x	S	6.8:	TT	9	L	10	30	6	s4/			MAK02
2001 11 19.87	x	B	6.8	TJ	6.0	B		20	&12	3/			WLO
2001 11 19.87	x	B	7.0	AA	5.0	B		10	7	s4/			MAR12
2001 11 19.93	x	B	6.5	TJ	6.0	B		10	8	4			RZE
2001 11 20.64	x!	B	6.7	TJ	35	L	6	105	&12	D6	&15 m		CHR
2001 11 20.72		E	5.9	AA	8	R	10	28	9	s6			ROM
2001 11 20.77	x	B	6.5	TJ	6.0	B		10	9	3			RZE
2001 11 20.77	x	M	6.6	TT	6.0	B		30	15	D6	0.17	350	BUR04
2001 11 20.81	x	B	6.8	TJ	6.0	B		20	&12	4			SIW
2001 11 20.84	x	B	6.9	TJ	5.0	B		10	10	s5			MAR12
2001 11 20.85	x	B	6.6	TJ	5.0	B		15	10	s5			KIS03
2001 11 20.87	x	S	6.8	TJ	5.0	B		10	&18	s4/			MAR13
2001 11 21.89		S	6.2	AA	5.0	B		7	19	5			BEG01
2001 11 21.92		S	6.5	TJ	6.3	B		9	14	5			KAM01
2001 11 21.96	x	B	7.0	TT	6.7	B		20	& 5	5	&0.33	5	SCI
2001 11 22.05		S	6.2	AA	5.0	B		10	10	3/			C0002
2001 11 22.75		S	7.8	S	9.0	C		9	3	3			PLO
2001 11 22.79	x	B	6.5	TJ	6.0	B		20	&15	4			SIW
2001 11 22.82		S	6.5	TJ	6.0	B		20	15	4			RES
2001 11 22.88	x	B	6.0	TJ	6.0	B		30	20	D5			POW01
2001 11 23.06		B	6.0:	SC	5.0	B		10	3	3			BON

Comet C/2000 WM1 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 23.07		M	6.3	TJ	6.3	B		9	11	5			DAH
2001 11 23.78		M	7.2	HS	20	L	5	50	7	6			BAR06
2001 11 23.79		M	6.7	HS	8.0	B		12	12	5			BAR06
2001 11 24.07		S	6.1	TJ	6.3	B		9	10	5			DAH
2001 11 24.75	x	B	6.3	TJ	6.0	B		20	&18	4/			SIW
2001 11 24.96		S	6.1	AA	5.0	B		7	10	6			BEG01
2001 11 25.01	x	B	6.5:	TJ	6.0	B		20	&15	4			WLO
2001 11 25.83		S	6.2	TJ	6.0	B		20	10	4			RES
2001 11 25.84		S	6.1	AA	5.0	B		7	15	6			BEG01
2001 11 26.82	x	B	6.2	TJ	6.0	B		30	19	D5			POW01
2001 11 26.83	x	S	5.7	TT	4.0	B		8	&13	4			GRA09
2001 11 27.64	x	B	6.5:	TJ	35	L	6	105		D6			CHR
2001 12 01.79		S	5.9	TJ	6.0	B		20	10	3/			RES
2001 12 02.53	x	M	6.2	TT	4.0	B		8					PEA
2001 12 02.53	x	M	6.2	TT	8.0	B		20	12	5	0.75	35	PEA
2001 12 02.69		M	6.7	HS	11	L	7	50	14	5			BAR06
2001 12 02.83		M	5.8	AA	5.0	B		7	14	5	0.5	350	BEG01
2001 12 03.68	x	B	7.1	TJ	6.0	B		30	14	D6			POW01
2001 12 03.69	x	B	5.5	TJ	5.0	B		10	8	s4	0.20	30	MAR12
2001 12 03.69	x	B	6.9	TJ	20	L	5	50	10	D6			POW01
2001 12 03.83	x	M	6.2	TT	6.0	B		30	13	4			BUR04
2001 12 03.99		M	6.0	HS	8.0	B		12	15	5			BAR06
2001 12 04.78		S	5.7	AA	5.0	B		10		3			C0002
2001 12 04.80		M	6.0	HS	8.0	B		12	14	5	1	38	BAR06
2001 12 04.83	x	[6.3	TT	6.0	B		20	!10				SCI
2001 12 05.78		S	5.5	HI	4.0	B		8		4			MAC04
2001 12 05.83		M	5.9	HS	8.0	B		12	14	5	1	45	BAR06
2001 12 05.94		S	5.6	TJ	6.0	B		20	8	4/			RES
2001 12 06.53	x	M	5.8	TT	4.0	B		8	19	5			PEA
2001 12 06.53	x	M	5.8	TT	8.0	B		20	13	5	1.4	41	PEA
2001 12 06.75	x	B	6.0	TJ	6.0	B		30	13	D4			POW01
2001 12 06.76		S	6.3	AA	5.0	B		10	7.2	5	0.17	25	ABB
2001 12 07.45	x	S	5.7	TT	4.0	B		7	14	5			HAS08
2001 12 07.71	x	B	6.5	TJ	5.0	B		10	10	s3/			MAR12
2001 12 07.71	x	M	5.8	TT	6.0	B		30	15	4	0.46	43	BUR04
2001 12 07.75	x	B	5.7	TJ	6.0	B		30	15	D6	0.30	55	POW01
2001 12 07.75	x	B	6.2:	TJ	6.0	B		20	&10	4			WLO
2001 12 07.75	x	B	6.4	TT	5.0	B		7	&14	4	&1.0	50	FIL04
2001 12 07.75	x	B	6.6	TJ	5.0	B		10	15	5	0.22	54	BAR10
2001 12 07.76	x	B	6.5	TJ	20	L	5	30	10	D6	0.30	64	POW01
2001 12 07.81		S	5.2:	HV	6.3	B		9	&20	3			KAM01
2001 12 07.82	x	S	6.0	TJ	5.0	B		12	12	4	0.20	68	SMY
2001 12 07.83	x	B	6.2	TJ	13	L	5	65	12	3			SMY
2001 12 08.56	x	M	5.7	TT	4.0	B		8	14	5			PEA
2001 12 08.56	x	M	5.7	TT	8.0	B		20	11	5	1.1	34	PEA
2001 12 08.72		S	5.7	HV	6.3	B		9	14	3			KAM01
2001 12 08.75	x	B	5.7	TJ	6.0	B		30	14	D4			POW01
2001 12 08.75	x	B	6.6	TT	10.0	B		25	&10	3/	&0.40	50	FIL04
2001 12 08.75	x	M	5.5	TJ	5.0	B		7	12	5			PAR03
2001 12 08.76	x&	B	5.8	TJ	5.0	B		10	&16	s4			MAR13
2001 12 08.76	x&	S	6.5	TJ	5.0	B		10	13	s3/			MAR12
2001 12 08.80	x	B	6.0	TJ	13	L	5	65	10	4	0.15	60	SMY
2001 12 08.80	x	S	5.6	TT	4.0	B		8	13	4			GRA09
2001 12 08.81		M	5.5	HS	3	R		6	18	4			BAR06
2001 12 08.81		M	5.9	HS	8.0	B		12	15	5			BAR06
2001 12 09.53	x	M	5.9	TT	4.0	B		8	16	5			PEA
2001 12 09.53	x	M	6.0	TT	8.0	B		20	14	5	0.75	36	PEA
2001 12 09.72		B	5.9	HS	8.0	B		12	14	4			BAR06
2001 12 09.75		B	5.8	SC	8	R	5	40	12.5	8		70	BON
2001 12 09.77	x	B	6.6	TT	6.0	B		20	& 8	3/	&0.37	62	SCI
2001 12 09.77	x&	B	5.8	TJ	5.0	B		10	&16	S3/			MAR13
2001 12 09.79		S	6.0	HV	6.3	B		9	11	4	0.4	50	KAM01
2001 12 09.80	x	S	5.9	TT	6.0	B		20	&12	2/			SAD
2001 12 10.80		S	6.2	HV	6.3	B		9	14	4/			KAM01
2001 12 12.73		S	5.1	AA	0.0	E		1	20	5	0.5	35	BEG01

Comet C/2000 WM1 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 12 12.74		S	5.3	AA	5.0	B		7	24	6	1.3	20	BEG01
2001 12 12.77		S	5.3	TJ	6.0	B		20	&10	3			RES
2001 12 13.82		S	5.4	AA	5.0	B		10	8	4	0.7	54	C0002
2001 12 14.86		S	5.2	AA	5.0	B		7	16	6	0.5	40	BEG01
2001 12 15.77		S	5.5	AA	5.0	B		10	8	4			C0002
2001 12 17.54	x	M	5.8	TT	4.0	B		8	10	6			PEA
2001 12 17.54	x	M	6.0	TT	8.0	B		20	9	6	1.1	57	PEA
2001 12 17.88		S	5.5	AA	5.0	B		7	20	6			BEG01
2001 12 19.54	x	M	6.0	TT	4.0	B		8	13	6			PEA
2001 12 19.54	x	M	6.0	TT	8.0	B		20	10	6	0.8	61	PEA
2001 12 19.74		S	5.8	AA	5.0	B		7	7	6	1.4	55	BEG01
2001 12 20.54	x	M	6.0	TT	4.0	B		8	10	6			PEA
2001 12 20.54	x	M	6.0	TT	8.0	B		20	8	6			PEA
2001 12 20.74		S	6.0	AA	5.0	B		7	7	5	53 m	55	BEG01
2001 12 22.57	x	M	6.1	TT	4.0	B		8	9.5	6			PEA
2001 12 22.57	x	M	6.2	TT	8.0	B		20	8	6	0.5	68	PEA
2001 12 22.74		S	5.9	AA	5.0	B		10	6	5	0.2	87	C0002
2001 12 24.54	x	M	6.1	TT	4.0	B		8	11	6			PEA
2001 12 24.78		S	5.6	AA	5.0	B		10	6	5			C0002
2001 12 25.53	x	M	6.1	TT	4.0	B		8	12	7			PEA
2001 12 26.53	x	M	6.0	TT	4.0	B		8	10	7			PEA
2001 12 27.53	x	M	6.1	TT	4.0	B		8	9	6			PEA
2001 12 28.53	x	M	6.0	TT	4.0	B		8	9	6/			PEA
2001 12 28.79		S	6.0	AA	5.0	B		10	4	7	0.4	93	C0002
2001 12 29.40		M	6.2	TT	5.0	B		10	5	7			RAE
2001 12 29.53	x	M	6.0	TT	4.0	B		8	8	6/			PEA
2001 12 29.98		S	6.0	YG	8.0	B		20	5	6			AM001
2001 12 30.53	x	M	6.0	TT	4.0	B		8	8	7			PEA
2001 12 30.95		S	5.9	YG	5.0	B		7		5			SOU01
2001 12 30.96		S	6.1	YG	5.0	B		7	5	8			AM001
2001 12 30.97		S	6.2	YG	8.0	B		20	4	7	0.13	90	AM001
2001 12 31.00		S	5.8	HV	5.0	B		12	8	7			YUM
2001 12 31.74		S	5.7	AA	5.0	B		10	5	6/	0.3	103	C0002
2001 12 31.97		S	5.9	YG	5.0	B		7		5/			SOU01
2001 12 31.99		S	6.1	HD	8.0	B		11	10	6			DES01
2002 01 01.02		M	5.7:	TT	5.0	B		7	5	6	0.33	90	BAL07
2002 01 01.02		S	6.1	HV	5.0	B		12	8	7/			YUM
2002 01 01.53	x	M	6.0	TT	4.0	B		8	8	7			PEA
2002 01 01.76		S	6.2	AA	5.0	B		7	7	7	55 m	90	BEG01
2002 01 01.96		S	5.9	YG	5.0	B		7		5/			SOU01
2002 01 02.02		S	6.1	HV	5.0	B		12	9	7/			YUM
2002 01 02.03		S	6.0	YG	5.0	B		7	5	7/			AM001
2002 01 02.53	x	M	6.0	TT	4.0	B		8	6.5	7			PEA
2002 01 02.53	x	M	6.2	TT	8.0	B		20	5.5	6	0.75	99	PEA
2002 01 02.73		S	6.2	AA	5.0	B		10	8	7			PRI04
2002 01 02.75		S	6.0	AA	5.0	B		7	7	7	1.0	97	BEG01
2002 01 02.97		S	6.0	YG	5.0	B		7		6			SOU01
2002 01 03.02		S	6.1	YG	5.0	B		7	5	8			AM001
2002 01 03.02		S	6.2	HV	5.0	B		12		7/			YUM
2002 01 03.02		S	6.2	YG	8.0	B		20	4	7	0.16	100	AM001
2002 01 03.04		M	6.5	S	5.0	B		7	5	6			MAN04
2002 01 03.53	x	M	6.1	TT	4.0	B		8	6.5	7			PEA
2002 01 03.53	x	M	6.2	TT	8.0	B		20	6	6	0.83	107	PEA
2002 01 03.77		S	6.2	AA	5.0	B		7	5	6	30 m	100	BEG01
2002 01 03.94		S	6.0	YG	5.0	B		7		6/			SOU01
2002 01 03.95		S	6.2	HD	8.0	B		11	10	5/	0.24		DES01
2002 01 03.97	B	6.2	YG	5.0	B			7	6	7/			AM001
2002 01 03.98	B	6.4	TK	8.0	B			20	4	6/	0.2	100	AM001
2002 01 04.43	M	5.9	TT	2.1	B			8	9	8	&1.5	76	RAE
2002 01 04.54	B	6.1	TT	5.0	B			7	4	7	>1.0	110	MAT08
2002 01 04.73		S	6.0	AA	5.0	B		7	7	7	2.5	100	BEG01
2002 01 04.95		S	6.1	YG	5.0	B		7		5/			SOU01
2002 01 04.96		S	6.3	HD	8.0	B		11	10	5	0.24		DES01
2002 01 04.97		S	6.1	HV	5.0	B		12	7	6	0.17	105	YUM
2002 01 06.53	x	M	6.0	TT	4.0	B		8	7.5	7/			PEA

Comet C/2000 WM1 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 06.53	x	M	6.1	TT	8.0	B		20	5.5	7	1.1	112	PEA
2002 01 06.75		S	6.3	AA	5.0	B		7	6	7	2.1	110	BEG01
2002 01 06.76		S	5.9	AA	5.0	B		10	3	7	0.3	108	CO002
2002 01 07.02		M	6.2	S	5.0	B		7	4	6			MAN04
2002 01 07.39		M	6.2	TT	2.1	B		8	12	7	&2	90	RAE
2002 01 07.95		S	6.3	HD	8.0	B		11	6	5			DES01
2002 01 07.97		B	6.1	YG	8.0	B		20	4	7/	0.25	110	AM001
2002 01 07.97		B	6.2	YG	5.0	B		7	5	7			AM001
2002 01 08.03		M	6.1	S	5.0	B		7	4	7			MAN04
2002 01 08.97		B	6.2	YG	8.0	B		20	4	7	0.2	110	AM001
2002 01 08.97		B	6.3	YG	5.0	B		7	4	8			AM001
2002 01 09.03		M	6.0	S	5.0	B		7	4	7			MAN04
2002 01 09.51		B	6.1	TT	5.0	B		7	3	7	>1.0	129	MAT08
2002 01 11.03		M	5.9	S	5.0	B		7	4	7			MAN04
2002 01 12.53	x	B	6.0	TT	4.0	B		8	6	7			PEA
2002 01 12.74		S	6.0	AA	5.0	B		7	5	6			BEG01
2002 01 14.94		S	6.2	YG	8.0	B		11					SOU01
2002 01 15.08		S	6.1	HD	12	B		14	10	6/	1.2		ARQ
2002 01 15.97		S	6.2	YG	5.0	B		7		8			AM001
2002 01 15.97		S	6.3	YG	8.0	B		20	4	6/	0.16	140	AM001
2002 01 16.51		B	6.0	TT	5.0	B		7	3	7	>2.0		MAT08
2002 01 16.96		B	6.0	YG	5.0	B		7	5	8			AM001
2002 01 16.96		B	6.2	YG	8.0	B		20	4	7	0.16	140	AM001
2002 01 17.96		B	6.2	YG	5.0	B		7	5	7			AM001
2002 01 18.74		S	5.9	AA	5.0	B		10		7/			CO002
2002 01 20.53	x	B	6.3	TT	8.0	B		20	4	6			PEA
2002 01 20.96		B	6.1:	TJ	8.0	B		20	2	8			AM001
2002 01 21.31		B	6.3:	TJ	8.0	B		20	3	7/			AM001
2002 01 21.96		B	6.4:	TJ	8.0	B		20	3	6			AM001
2002 01 22.52	x	B	6.0	TT	8.0	B		20	5	6			PEA
2002 01 22.83	x	B	6.2	TT	8.0	B		20	5	6			PEA
2002 01 24.83	x	B	6.0	TT	8.0	B		20	4	6	0.5		PEA
2002 01 26.31		B	6.4	TJ	8.0	B		20	5	7	0.1	180	AM001
2002 01 26.83	x	B	6.2:	TT	8.0	B		20	2.2	6			PEA
2002 01 27.85	a	B	4.6	TT	4.0	B		8	4	8			PEA
2002 01 27.85	a	B	4.6	TT	8.0	B		20	3.5	8	0.5	195	PEA
2002 01 28.32		S	4.8:	HV	5.0	B		12		7/			YUM
2002 01 29.78		B	3.0	TT	0.0	E		1		9			MAT08
2002 01 30.31					5.0	B		7	5	7	0.2	200	AM001
2002 01 30.31		I	3.6:	YG	0.0	E		1		8			AM001
2002 01 30.78		B	2.9	TT	0.0	E		1		8/			MAT08
2002 01 30.85	a	B	2.8	TT	4.0	B		8	6.5	8/			PEA
2002 01 30.85	a	B	2.9	TT	8.0	B		20	5	8/	1.5	196	PEA
2002 01 30.85	a	I	2.8	TT	0.0	E		1		8/			PEA
2002 01 31.31		S	3.4:	HV	5.0	B		12	6	8			YUM
2002 01 31.33		I	3.0:	YG	0.0	E		1		8/			AM001
2002 01 31.33		S	2.9:	YG	5.0	B		7	5	7	0.25	200	AM001
2002 01 31.78	!	B	3.0	TT	0.0	E		1		8			MAT08
2002 01 31.85	a	B	3.2	TT	4.0	B		8	4	8			PEA
2002 01 31.85	a	B	3.3	TT	8.0	B		20	3	8	1.0	220	PEA
2002 01 31.85	a	I	3.2	TT	0.0	E		1		8			PEA
2002 02 01.28		S	3.0:	YG	5.0	B		7	5	7	0.4	210	AM001
2002 02 01.31		B	4.1	S	5.0	B		7	7	5	0.4	215	MAN04
2002 02 02.31		B	2.9	YG	5.0	B		7	6	7	1	205	AM001
2002 02 02.31		I	3.5	YG	0.0	E		1		8/			AM001
2002 02 02.85	a	B	3.2	TT	4.0	B		8	4	8			PEA
2002 02 02.85	a	B	3.2	TT	8.0	B		20	3	8	2.0	210	PEA
2002 02 02.85	a	I	3.1	TT	0.0	E		1		8			PEA
2002 02 03.30		B	4.0	S	5.0	B		7	7	6	1.2	220	MAN04
2002 02 03.31		B	3.4	YG	5.0	B		7	5	6/	1.3	215	AM001
2002 02 03.31		I	3.5	YG	0.0	E		1		7			AM001
2002 02 03.84	a	B	3.6	TT	4.0	B		8	4	8			PEA
2002 02 03.84	a	B	3.6	TT	8.0	B		20	3	8	2.2	219	PEA
2002 02 03.84	a	I	3.5	TT	0.0	E		1		8			PEA
2002 02 04.30		S	4.3	TJ	5.0	B		10	5	4	1.7	200	AGU

Comet C/2000 WM1 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 04.78	!	B	3.8	TT	0.0	E		1		7			MAT08
2002 02 05.31		B	4.0	YG	5.0	B		7	5	7	2.25	215	AM001
2002 02 05.31		I	3.8	YG	0.0	E		1		8			AM001
2002 02 05.31		S	3.6	HV	5.0	B		12	5	8	1.5	220	YUM
2002 02 05.78	!	B	4.0	TT	0.0	E		1		7			MAT08
2002 02 05.84	a	B	4.0	TK	4.0	B		8	5	7			PEA
2002 02 05.84	a	B	4.1	TK	8.0	B		20	4	7	2.5	217	PEA
2002 02 05.84	a	I	4.0	TK	0.0	E		1		8			PEA
2002 02 06.31		B	4.1	YG	5.0	B		7	3	6/	2	215	AM001
2002 02 06.32		S	4.3	HV	5.0	B		12	4	6/	0.9	220	YUM
2002 02 06.78	!	B	4.3	TT	0.0	E		1		7			MAT08
2002 02 06.84	a	B	4.2	TK	4.0	B		8	5.5	7			PEA
2002 02 06.84	a	B	4.3	TK	8.0	B		20	4	7	3.0	219	PEA
2002 02 06.84	a	I	4.1	TK	0.0	E		1		8			PEA
2002 02 07.78	!	B	4.3	TT	0.0	E		1		7			MAT08
2002 02 07.84	a	B	4.5	TK	4.0	B		8	5	7			PEA
2002 02 07.84	a	B	4.5	TK	8.0	B		20	4	7	3.2	217	PEA
2002 02 07.84	a	S	4.4	TK	0.0	E		1		7			PEA
2002 02 08.84	a	B	4.3	TK	4.0	B		8	6	7			PEA
2002 02 08.84	a	B	4.3	TK	8.0	B		20	4.5	7	3.2	220	PEA
2002 02 08.84	a	S	4.3	TK	0.0	E		1		7			PEA
2002 02 09.30		B	4.5	S	5.0	B		7	6	6	1.5	220	MAN04
2002 02 09.34		S	4.6	HP	5.0	B		7	6	4	1.3	220	BAL07
2002 02 09.84	a	S	4.5	TK	0.0	E		1		7			PEA
2002 02 10.28		B	4.6	YG	5.0	B		7	3	6	1.3	220	AM001
2002 02 10.31		S	4.1	YG	5.0	B		7	5	6/	3.0	232	SOU01
2002 02 10.31		S	4.4	HV	5.0	B		12	5	7	2.0	230	YUM
2002 02 10.32		B	4.6	S	5.0	B		7	6	7	1.5	238	SAN13
2002 02 10.32		S	4.2	HV	3.0	B		8	5	7/	1.8	230	YUM
2002 02 10.33		B	4.6	TJ	5.0	B		7	6	7	1.5	235	MAN04
2002 02 10.78	!	B	4.4	TT	0.0	E		1		7	>2	222	MAT08
2002 02 10.85	a	B	4.6	TK	4.0	B		8	6	7			PEA
2002 02 10.85	a	B	4.6	TK	8.0	B		20	4.5	7	3.3	222	PEA
2002 02 10.85	a	S	4.6	TK	0.0	E		1		7			PEA
2002 02 11.29		S	4.6	HD	8.0	B		11	6	5/	1.6	75	DES01
2002 02 11.31		S	4.5	HV	5.0	B		12	5	6/	1.5	230	YUM
2002 02 11.32		S	4.3	YG	5.0	B		7	5	6	2.0	232	SOU01
2002 02 11.34		B	4.7	YG	5.0	B		7	3	6			AM001
2002 02 12.30		S	4.8	HD	8.0	B		11	8	5/	1.6	225	DES01
2002 02 12.31		B	4.8	YG	5.0	B		7	4	6	1.5	220	AM001
2002 02 12.31		S	4.4	YG	5.0	B		7	5	6	2.5	232	SOU01
2002 02 12.78	!	B	4.5	TT	0.0	E		1		7			MAT08
2002 02 13.33		B	4.8	TJ	5.0	B		7	5	7	0.5	245	MAN04
2002 02 13.85	a	B	5.0	TK	4.0	B		8	5	7			PEA
2002 02 13.85	a	B	5.0	TK	8.0	B		20	4	7	2.4	228	PEA
2002 02 14.34		B	5.2	TJ	5.0	B		7	5	7	0.4	245	MAN04
2002 02 15.30		B	5.0	YG	5.0	B		7	4	6	1	225	AM001
2002 02 15.30		I	4.9	YG	0.0	E		1		7/			YUM
2002 02 15.30		S	5.0	HD	8.0	B		11	6	5	1.6	235	DES01
2002 02 15.77		B	5.0	TT	5.0	B		7	4	6	>3		MAT08
2002 02 15.85	a	B	5.2	TK	4.0	B		8	6	7			PEA
2002 02 15.85	a	B	5.4	TK	8.0	B		20	5	7	2.5	218	PEA
2002 02 15.85	a	S	5.2	TK	0.0	E		1		7			PEA
2002 02 16.77		B	5.2	TT	5.0	B		7	4	6	>4	225	MAT08
2002 02 16.85	a	B	5.2	TK	4.0	B		8	6	6			PEA
2002 02 16.85	a	B	5.4	TK	8.0	B		20	5	6	2.5	215	PEA
2002 02 16.85	a	S	5.2	TK	0.0	E		1		7			PEA
2002 02 17.85	a	B	5.4	TK	4.0	B		8	6	6			PEA
2002 02 17.85	a	B	5.6	TK	8.0	B		20	5	6	2.1	225	PEA
2002 02 18.30		S	5.1	HD	8.0	B		11	8	5	1.6	235	DES01
2002 02 19.30		S	5.1	HD	8.0	B		11	8	5	1.6	235	DES01
2002 02 19.30		S	5.4	YG	5.0	B		10		6	0.2	220	ARA
2002 02 19.85	x\$	S	5.6:	TJ	10.0	B		20	8	6			NAG08
2002 02 19.85	a	B	5.7	TK	4.0	B		8	6	6			PEA
2002 02 19.85	a	B	5.7	TK	8.0	B		20	4	6	1.9	219	PEA

Comet C/2000 WM1 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 20.85	x\$	S	5.7	TJ	8.0	B		11	7	6			NAG08
2002 02 20.85	a	B	5.8	TK	4.0	B		8	4.5	6			PEA
2002 02 20.85	a	B	5.9	TK	8.0	B		20	3.5	6	1.8	227	PEA
2002 02 20.86	xw	M	6.5	TT	10.0	B		20	3	6	8	m 240	YOS02
2002 02 21.78		B	6.1	TT	5.0	B		7	4	6	>1	240	MAT08
2002 02 21.85	a	B	5.9	TK	4.0	B		8	6	6			PEA
2002 02 21.85	a	B	5.9	TK	8.0	B		20	4.5	7	1.3	221	PEA
2002 02 22.25		B	6.3	YG	8.0	B		20	3	5	0.5	230	AM001
2002 02 22.84		S	6.2	TJ	25.4	T	6	32	4.0	7	4	m 240	YOS04
2002 02 22.85	a	B	6.0	TK	4.0	B		8	6	6			PEA
2002 02 22.85	a	B	6.0	TK	8.0	B		20	3	6/	1.9	229	PEA
2002 02 23.31		B	6.3	YG	5.0	B		7	6	5	0.9	235	AM001
2002 02 23.36		S	6.8	HD	10	B		14	10	7/	0.5		ARQ
2002 02 23.85	a	B	6.0	TK	4.0	B		8	7	6			PEA
2002 02 23.85	a	B	6.0	TK	8.0	B		20	4	6	1.5	228	PEA
2002 02 24.85	a	B	6.0	TK	8.0	B		20	3.5	6	1.4	240	PEA
2002 02 24.85	a	B	6.1	TK	4.0	B		8	7	6			PEA
2002 02 25.32		B	6.3	TK	5.0	B		7	4	4/	0.4	235	AM001
2002 02 25.84	a	B	6.3	TK	4.0	B		8	6	6			PEA
2002 02 25.84	a	B	6.3	TK	8.0	B		20	5	6	1.0	224	PEA
2002 02 26.32		B	6.2	TK	5.0	B		7	3	4/	0.4	230	AM001
2002 02 26.85	a	B	6.5	TK	8.0	B		20	3.5	6	0.3	240	PEA
2002 02 27.32		S	6.4	TK	5.0	B		7	3	4	0.6	250	AM001
2002 02 27.84	a	B	6.5	TK	8.0	B		20	4	6	0.5	221	PEA
2002 02 28.84	a	B	6.6	TK	8.0	B		20	4	6	0.6	245	PEA
2002 03 01.84	a	B	6.8	TK	8.0	B		20	3.5	6	0.4	230	PEA
2002 03 02.84	a	B	6.7	TK	8.0	B		20	3	6	0.75	230	PEA
2002 03 03.17		S	6.9	AA	10.0	R	6	34	4	6	0.4	235	KOR01
2002 03 03.22		S	7.2:	TK	20.3	L	6	48	3	5			BIV
2002 03 03.22		S	7.2:	TK	20.3	L	6	48	3.0	5			BIV
2002 03 03.83	x	S	7.6:	TJ	25.0	L		69	2.3	4			WAT01
2002 03 03.84	a	B	6.8	TK	8.0	B		20	4	5/	0.3	224	PEA
2002 03 04.20	a	S	6.4	HV	20.3	T	10	50	2.8	5			KAM01
2002 03 04.84	a	B	7.0	TK	8.0	B		20	3.5	5	0.25	227	PEA
2002 03 05.18		M	7.2	TI	7.6	L	9	18	5	3	0.6	250	CER01
2002 03 05.84	a	B	7.2	TK	8.0	B		20	3	5	0.3	230	PEA
2002 03 06.83	xw	S	7.2	TJ	8.0	B		11	6	6			NAG08
2002 03 06.84	a	B	7.3	TK	8.0	B		20	3	5	0.4	237	PEA
2002 03 07.81	a	B	7.4	TK	8.0	B		20	4.5	4/			PEA
2002 03 07.83	xw	S	7.2	TJ	8.0	B		11	6	6			NAG08
2002 03 08.20		S	7.0:	TK	5.0	B		7	5	3			BIV
2002 03 08.20		S	7.2	TK	20.3	L	6	48	3.0	4			BIV
2002 03 08.83		S	7.4	TJ	25.4	T	6	32	3.5	6	10	m 235	YOS04
2002 03 09.16		M	7.3	TT	8.0	B		10	9	4	1.2	240	HOR02
2002 03 09.27		B	7.4	TK	8.0	B		20	2	4	0.16	220	AM001
2002 03 09.82		S	7.5	TJ	25.4	T	6	32	3.8	6	19	m 230	YOS04
2002 03 09.82	a	B	7.6	TK	8.0	B		20	3.0	5			PEA
2002 03 09.82	xa	S	7.2	TJ	8.0	B		11	6	6	0.3	230	NAG08
2002 03 10.21		S	7.3	TK	5.0	B		7	5	5	0.5	230	BIV
2002 03 10.21		S	7.6	TK	25.6	L	5	42	5.0	5	0.5	240	BIV
2002 03 11.15		M	7.3	TT	8.0	B		10	7	4	0.9	240	HOR02
2002 03 11.17		S	7.5	HV	20.3	T	10	50	3.3	5	0.1	245	KAM01
2002 03 11.17		S	7.6	TT	10.0	B		15	2.2	4	0.15	235	HAS02
2002 03 11.32		S	7.7	TK	8.0	B		20	4	4	0.16	225	AM001
2002 03 11.82	xa	S	7.5	TJ	8.0	B		11	5	6			NAG08
2002 03 11.83	x	S	8.0:	TJ	25.0	L		69	2	4			WAT01
2002 03 12.16		S	7.7	TT	6.0	B		20	3	3			RES
2002 03 12.17		S	7.8	AA	10	R	6	34	3	5	0.2	225	KOR01
2002 03 12.20		M	7.3	TI	5.0	B		10	8	3			CER01
2002 03 13.16		M	7.4	TT	8.0	B		10	9	4	0.7	240	HOR02
2002 03 13.33		S	7.9:	TK	8.0	B		20	2	3	0.1	230	AM001
2002 03 13.73		B	8.1	TT	5.0	B		7	2	5	>1	230	MAT08
2002 03 13.84	x	M	8.4	TT	10.0	B		26					TSU02
2002 03 13.86	a	B	8.2	TK	8.0	B		20	4.5	5	0.2	238	PEA
2002 03 14.15		M	7.4	TT	8.0	B		10	10	3	0.4	240	HOR02

Comet C/2000 WM1 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 14.15		M	7.9	TJ	7.0	R	7	24	5	4/			GRA04
2002 03 14.19		S	7.7	TK	5.0	B		7	5	5	0.5	230	BIV
2002 03 14.19		S	8.1	TK	20.3	L	6	48	4.5	4	0.25	240	BIV
2002 03 14.75		B	8.1	TT	10	B		25	3	5	>1.3	232	MAT08
2002 03 15.33		S	8.0	TK	8.0	B		20	3	4			AM001
2002 03 15.86	a	B	8.3	TK	8.0	B		20	3.7	5	0.5	242	PEA
2002 03 16.20		S	8.1	AA	10	R	6	34	3	5	0.1	220	KOR01
2002 03 16.85	a	B	8.3	TK	8.0	B		20	4.5	4/	0.37	222	PEA
2002 03 17.18		S	8.2	AA	10	R	6	34	4	4/	0.3	225	KOR01
2002 03 17.81	x	S	9.0	TJ	31.7	L	6	63	1.8	5			MIY01
2002 03 18.18		S	8.2	AA	10	R	6	34	4	4	0.3	225	KOR01
2002 03 18.80	x	S	8.2	TJ	8.0	B		11	5	6			NAG08
2002 03 18.80	x	S	8.4	TJ	31.7	L	6	63	1.7	4/	5.0m	260	MIY01
2002 03 18.85	a	B	8.4	TK	8.0	B		20	4.3	4/	0.6	228	PEA
2002 03 19.80		S	8.2	TJ	25.4	T	6	32	5	5	0.6	235	YOS04
2002 03 20.19		S	8.3	AA	15	V	5	38	5	3	0.4	235	KOR01
2002 03 20.81	x	S	8.1	TJ	8.0	B		11	4	6			NAG08
2002 03 20.81	x	S	8.1	TT	25.0	L		69	2.5	4			WAT01
2002 03 20.81	x	S	8.2	TJ	32.0	L	5	58	3.2	6	0.3	230	NAG08
2002 03 20.86	a	S	8.7	TK	8.0	B		20	4.2	3			PEA
2002 03 21.09		S	8.4	TT	6.0	B		20	3	3			RES
2002 03 21.15		S	8.4	TK	20.3	T	10	100	4.5	3/			GRA04
2002 03 21.85	a	S	8.7	TK	8.0	B		20	4.5	3			PEA
2002 03 22.17		S	8.8	TJ	8.0	B		11	3	3	0.3	235	GON05
2002 03 22.19		S	8.3	AA	15	V	5	38	5	3	0.3	235	KOR01
2002 03 23.06		S	8.6	TT	6.0	B		20	3	2/			RES
2002 03 23.14		M	7.8	TT	8.0	B		10	9	3	0.7	230	HOR02
2002 03 23.14		S	8.5	TK	25.4	J	6	47	3.5	4	0.4	240	BOU
2002 03 23.18		S	8.1	TK	20.3	L	6	48	5.0	4	0.2	240	BIV
2002 03 23.18		S	8.4	AA	15	V	5	38	4	3/	0.3	230	KOR01
2002 03 23.84	a	S	8.9	TK	8.0	B		20	3.0	4	1.3	237	PEA
2002 03 24.12		S	8.6	TJ	20.3	T	10	100	4	3/			GRA04
2002 03 24.15		S	9.1	TT	30.0	L	5	60	& 4	5			SCH04
2002 03 24.17		S	8.3	TK	20.3	L	6	48	4.0	4			BIV
2002 03 24.85	a	S	8.9	TK	8.0	B		20	4.1	3			PEA
2002 03 25.81	x	S	8.9	TJ	25.0	L		69	4.4	4			WAT01
2002 03 25.85	a	S	9.0	TK	8.0	B		20	4.2	3			PEA
2002 03 26.33		S	8.7	TK	8.0	B		20	4	3			AM001
2002 03 26.85	a	S	9.0	TK	8.0	B		20	3.2	3			PEA
2002 03 27.19		I	9.6	TJ	8.0	B		11	3				GON05
2002 03 28.13		M	8.1	TI	7.6	L	9	18	5	3			CER01
2002 03 29.10		M	8.5	TI	7.6	L	9	18	5	3			CER01
2002 03 29.14		S	9.0	TJ	10.0	B		20	2.2	3			MEY
2002 03 30.12		S	9.4	TT	41	L	5	72	2	2/			RES
2002 04 01.82	x	S	8.6	TJ	25.0	L		69	2.8	2			WAT01
2002 04 03.11		M	8.9	TT	20	L	4	42	2.5	3			LEH
2002 04 03.75	x	S	9.3	TJ	32.0	L	5	58	3.1	5	6 m	230	NAG08
2002 04 04.03		M	9.6	AA	30	L	5	60	3	5	0.2	255	NEV
2002 04 04.09		M	8.9	S	15	L	5	30	2	3			SHU
2002 04 04.10		M	9.0	TT	20	L	4	42	2.5	4			LEH
2002 04 04.14		S	8.6	TT	8.0	B		10	5	3			HOR02
2002 04 04.15		S	9.3	TK	20.3	L	6	48	2.5	5			BIV
2002 04 04.77	x	S	9.2	TJ	32.0	L	5	58	2.7	5			NAG08
2002 04 05.03		M	9.4	TI	7.6	L	9	18	4	2			CER01
2002 04 05.11		M	9.2	TK	25.4	J	6	72	3.0	4			BOU
2002 04 05.11		S	9.2	TK	25.4	J	6	72	3	3/			DIJ
2002 04 05.11		S	9.5	TT	41	L	5	72	2.5	2/	0.1	270	RES
2002 04 05.12		S	9.5	TT	10.0	B		15	2.1	4			HAS02
2002 04 05.14		S	9.5	TK	20.3	L	6	48	3.0	5			BIV
2002 04 05.74		S	8.9	TJ	25.4	T	6	62	2.2	5	3.6m	250	YOS04
2002 04 06.11		S	9.1	TJ	15.0	R	8	80	3	2			DIE02
2002 04 06.12		S	9.4	TK	25.4	J	6	72	2.5	4			BOU
2002 04 06.12		S	9.7	TK	25.6	L	5	42	3.5	6	0.17	250	BIV
2002 04 06.13		S	9.1	TK	25.4	J	6	72	2.3	4			DIJ
2002 04 06.13		S	9.8	TK	20	T	10	75	2.4	4			SHA02

Comet C/2000 WM1 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 07.09		S	8.8	HS	25.4	T	10	62	2.0	4			KLA02
2002 04 07.10		M	9.3	TK	25.4	J	6	58	2.5	4	0.1	250	BOU
2002 04 07.13		S	9.6	TK	20	T	10	75	1.6	4	0.05	260	SHA02
2002 04 07.78	x	S	9.5	TJ	10.0	B		20	3.1	6			NAG08
2002 04 07.81	x	S	10.5	TJ	25.0	L	6	69	0.9	2			WAT01
2002 04 08.06		M	9.5	TI	7.6	L	9	18	4	3	0.13	270	CER01
2002 04 08.10		M	9.4	TT	20	L	4	42	2	3/			LEH
2002 04 08.10		S	8.7	TT	8.0	B		10	6	3			HOR02
2002 04 08.10		S	9.2	TT	30.0	L	5	78	3	5			SCH04
2002 04 08.10		S	9.5	TK	25.4	J	6	58	3.2	4			BOU
2002 04 08.11		S	9.3	TK	25.4	J	6	58	2.8	3			DIJ
2002 04 08.14		S	9.3	TK	20.3	L	6	48	3.5	5			BIV
2002 04 09.06		M	9.6	TI	7.6	L	9	35	4	3	0.1	270	CER01
2002 04 10.11		S	9.5	TK	25.4	J	6	72	2.9	4			BOU
2002 04 12.04		M	9.0	HS	25.4	T	6	64	4	2/			HOE
2002 04 12.78	x	S	9.5	TJ	32.0	L	5	58	2.7	5	15	m 235	NAG08
2002 04 13.76	x	S	9.5	TK	10.0	B		20	2	4			YOS02
2002 04 14.04		S	10.3	TK	25.6	L	5	42	2.0	4			BIV
2002 04 16.14		S	9.9	TK	20	T	10	75	2.2	3			SHA02
2002 04 17.63	x	S	9.8	TJ	32.0	L	5	58	2.7	4			NAG08
2002 04 21.77	x	S	10.2	TJ	32.0	L	5	58	2.1	5	7	m 255	NAG08
2002 04 22.98		S	10.2	AC	41	L	5	72	2.0	2/			RES
2002 04 29.95		S	10.4	TT	41	L	5	121	1.8	3			RES
2002 04 30.97		S	10.5	TT	41	L	5	121	1.5	3			RES

Comet C/2001 A2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 07 11.93		S	5.3	TI	8.0	B		12	12	3			BAR06
2001 07 11.93		S	5.4	TI	8.0	B		12	9	3			SHA09
2001 07 26.92		M	7.1	TT	5.0	B		9	20	3			GAR05
2001 07 27.96		M	7.2	TT	5.0	B		9	13	1			GAR05
2001 07 28.98		M	7.8:	TT	5.0	B		9	11	d2	0.44		GAR05
2001 07 31.02		M	8.1	TT	5.0	B		9	9	D5	0.45		GAR05
2001 08 14.89		S	8.7	TJ	30.5	T	10	75	4.0	2/			KAM01
2001 08 15.90		S	9.3	TJ	30.5	T	10	75	3.8	1/			KAM01
2001 10 14.79		S	12.9	HS	35	L	5	158	1.8	1			HOR02
2001 10 15.76		M	12.7	HS	42	L	5	81	1	3			LEH
2001 10 15.81		S	12.8:	HS	35	L	5	158	1.8	1/			HOR02
2001 10 22.78		S	13.3	HS	35	L	5	158	1.3	1			HOR02
2001 11 05.75		B	13.6	HS	42	L	5	81	1	3			LEH
2001 11 16.72		B	13.7	HS	42	L	5	81	0.9	3			LEH

Comet C/2001 C1 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 15.83		S	[14.0	GA	41	L	4	200	! 0.5				PEA
2002 02 16.84		S	[14.0	GA	41	L	4	200	! 0.5				PEA

Comet C/2001 HT50 (LINEAR-NEAT)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 14.91		S	[14.0	HS	38	L	4	193	! 0.5				SAR02
2002 03 18.88		S	13.7	AC	41	L	5	262	0.6	3			RES
2002 03 19.99		S	13.6	AC	41	L	5	262	0.7	4/			RES
2002 04 03.86		S	13.3	AC	41	L	5	121	0.8	3/			RES

Comet C/2001 K3 (Skiff)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 06 21.03		B	14.1	HS	42	L	5	162	0.8	4/			LEH
2001 06 25.01		B	14.4	HS	42	L	5	162	0.7	5			LEH
2001 06 25.99		B	14.4	HS	42	L	5	162	0.6	4/			LEH
2001 10 12.78		O	[14.2	HS	42	L	5	162	! 0.5				LEH
2001 10 13.77		O	[13.9	HS	42	L	5	162	! 0.5				LEH

Comet C/2001 K5 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 06 24.93		B	13.6:	HS	42	L	5	162	1	4/			LEH
2001 06 25.90		B	13.3	HS	42	L	5	162	1.2	4			LEH
2002 03 15.11		S	[14.4	HS	38	L	4	193	! 0.5				SAR02
2002 03 21.07		S	13.7	AC	41	L	5	121	1.0	2/			RES
2002 03 23.08		S	13.3	AC	41	L	5	72	1.0	3			RES
2002 03 24.86		S	13.8:	GA	41	L	4	200	0.7	1			PEA
2002 03 25.86		S	13.8:	GA	41	L	4	200	0.6	1/			PEA
2002 04 30.96		S	13.1	AC	41	L	5	121	1.0	3			RES

Comet P/2001 MD7 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 02.45		S	13.8:	HS	28	L	10	156	0.8	4			MAT08
2001 11 06.42	x	S	13.1	HS	25.4	L	4	113	0.9	4			YOS02
2001 11 06.49		S	13.8	HS	28	L	10	156	0.8	5			MAT08
2001 11 09.53		S	13.7	HS	28	L	10	88	0.8	5			MAT08
2001 11 11.46		S	12.8	GA	25.4	L		114					SEA
2001 11 12.44		S	12.7	GA	25.4	L		71	1				SEA
2001 11 13.45		S	12.7	GA	25.4	L		71					SEA
2001 11 13.53		S	13.5:	HS	28	L	10	156	0.6	5			MAT08
2001 11 14.44	xw	S	11.9	GA	25.4	L	4	113	1.4	4			YOS02
2001 12 02.39	x	S	11.9	GA	25.4	L	4	113	1.0	4			YOS02
2001 12 02.55	x	S	12.4	GA	41	L	4	90	1.4	2			PEA
2001 12 03.50		S	12.5	HS	20	L	7	80	1.5	5			MAT08
2001 12 06.52		S	12.5	HS	28	L	10	88	1.4	5			MAT08
2001 12 07.89		S	12.2	TI	32	L	5	75	1.3	2			MAR02
2001 12 08.57	x	S	12.6	GA	41	L	4	90	1.1	2			PEA
2001 12 08.72		S	11.6	TI	7.6	L	9	35	3				CER01
2001 12 09.50		B	12.5	HS	28	L	10	88	1.5	5			MAT08
2001 12 09.54	x	S	12.5	GA	41	L	4	90	1.2	2			PEA
2001 12 11.39	x	S	[12.2	HS	32.0	L	5	91	! 1.0				NAG08
2001 12 14.71		S	11.7	TI	7.6	L	9	35	2				CER01
2001 12 15.50		B	12.9	HS	28	L	10	88	1.0	4			MAT08
2001 12 15.56	x	S	12.6	GA	41	L	4	90	1.0	3			PEA
2001 12 16.54	x	S	12.6	GA	41	L	4	90	1.5	2			PEA
2001 12 16.56		B	12.7	HS	28	L	10	88	1.0	4			MAT08
2001 12 16.72	x	S	11.8	TT	20	L	5	50	2.1	s2			BURO4
2001 12 16.72	a	S	11.7	AC	31.0	J	6	89	1.3	4			BOU
2001 12 16.73	x	S	11.5	TT	20	L	5	50	1.7	4			POW01
2001 12 16.73	a	S	12.0	AC	31.0	J	6	89	1.1	1/			DIJ
2001 12 17.48		S	11.9	GA	10.0	B		25					SEA
2001 12 17.49		B	12.8	HS	28	L	10	88	1.0	5			MAT08
2001 12 17.54		S	12.4	GA	41	L	4	90	1.1	2			PEA
2001 12 19.54		S	12.5	GA	41	L	4	90	1.4	3			PEA
2002 01 02.75		S	12.4	AC	41	L	5	121	1.5	3			RES
2002 01 03.42	x	S	12.2	GA	25.4	L	4	113	1.0	5			YOS02
2002 01 03.79		S	13.0	HS	44.0	L	5	63	1.5	3			HAS02
2002 01 06.54		S	12.8	GA	41	L	4	90	1.4	2			PEA
2002 01 13.74		S	12.5	SK	31.0	J	6	89	1.3	4			BOU
2002 01 13.75		S	12.8	SK	31.0	J	6	89	1.0	2/			DIJ
2002 01 14.76		S	12.2	HS	41	L	5	121	1.8	3			RES
2002 02 02.77		S	12.9	AC	41	L	5	121	1.2	2/			RES
2002 02 02.77		S	13.5	HS	31.0	J	6	109	1.1	3			BOU
2002 02 02.77		S	13.8	HS	31.0	J	6	109	0.9	1/			DIJ
2002 02 03.75		S	12.9	AC	41	L	5	121	1.2	3			RES
2002 02 03.76		M	12.9	HS	42	L	5	81	1.5	3			LEH
2002 02 04.76		M	13.1	HS	42	L	5	81	1.4	3			LEH
2002 02 04.80		S	13.3	AC	41	L	5	121	1.1	2/			RES
2002 02 12.79		S	13.5	AC	41	L	5	72	1.0	2/			RES
2002 02 13.74		S	13.6	AC	41	L	5	121	1.0	2/			RES
2002 02 14.76		B	13.8	HS	42	L	5	81	1	3			LEH
2002 02 15.76		B	13.8	HS	42	L	5	81	1	3			LEH
2002 02 15.81		S	13.7	AC	41	L	5	121	0.7	2			RES
2002 02 16.79		S	13.7	AC	41	L	5	121	0.6	2			RES
2002 03 02.77		S	13.9	AC	41	L	5	121	0.5	2/			RES

Comet P/2001 MD7 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 10.81		S	13.3	HS	44.0	L	5	156	1.2	3			HAS02

Comet C/2001 N2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 21.08		S	[14.0	AC	41	L	5	121	! 0.7				RES

Comet C/2001 OG108 (LONEOS)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 03.77		S	11.8	HS	44.0	L	5	156	0.8	3			HAS02
2002 02 04.71		S	11.5	HS	41	L	5	121	0.9	4/			RES
2002 02 09.81		S	11.3:	HS	20	R	14	185	0.7	3			SHA02
2002 02 13.73		S	10.9	AC	41	L	5	121	0.8	3			RES
2002 02 13.78		S	11.4	TK	25.4	J	6	88	1.2	4/			BOU
2002 02 14.22		S	11.3	TK	20.3	L	6	95	1	5			BIV
2002 02 14.77		M	11.4	TK	25.4	J	6	88	1.2	5			BOU
2002 02 14.79		S	11.3	TK	20.3	L	6	95	1.2	5			BIV
2002 02 15.73		S	10.7	AC	41	L	5	121	1.4	4			RES
2002 02 15.77		M	11.3	TK	25.4	J	6	88	1.2	5			BOU
2002 02 16.73		S	10.6	AC	41	L	5	121	1.5	4			RES
2002 02 16.80		S	10.5	TT	20	R	14	110	1.6	2			SHA02
2002 02 16.82		S	11.2	TK	25.6	L	5	84	1	4			BIV
2002 02 17.67	w	M	11.0	PA	15	L	5	42	1	2/			SHU
2002 02 17.73		S	10.6	AC	41	L	5	121	1.2	4/			RES
2002 02 17.80		S	11.0	TK	25.6	L	5	84	1	5			BIV
2002 02 18.85	x	S	10.1	TT	10.0	B		37	2.5	3			YOS02
2002 02 20.80		S	10.3:	TT	20	R	14	90	& 1.5	3			SHA02
2002 02 20.84	x	S	10.1	TT	25.4	L	4	46	2.3	4			YOS02
2002 02 21.17		S	10.6	AC	20.3	T	10	100	1.6	4			GRA04
2002 02 22.83		S	10.3	TJ	25.4	T	6	62	2.0	5			YOS04
2002 02 24.22		S	11.1	TK	25.6	L	5	42	1	4			BIV
2002 02 24.23		S	11.1	TK	25.6	L	5	84	1.2	5	0.03	320	BIV
2002 02 24.84	x	M	10.4	TT	35.0	C	9	130	1.2	4			TSU02
2002 02 27.74		S	10.2	AC	41	L	5	72	1.5	2/			RES
2002 02 28.74		S	10.1	AC	41	L	5	72	1.5	2/			RES
2002 03 01.79		M	10.3	TK	25.4	J	6	72	1.6	4/			BOU
2002 03 01.82		S	10.8	TK	20.3	L	6	95	1	5			BIV
2002 03 02.75		S	9.9	AC	41	L	5	72	1.8	4			RES
2002 03 04.18		M	9.9	TT	35	L	5	68	1.8	4			HOR02
2002 03 05.11		M	10.3	TK	20.3	T	10	100	1.6	5			GRA04
2002 03 05.15		S	9.7	TI	7.6	L	9	35	2	4			CER01
2002 03 06.15		S	9.5	TI	7.6	L	9	35	2	4			CER01
2002 03 07.80		S	10.0	TK	25.4	J	6	72	2.1	4			BOU
2002 03 07.80		S	10.3	TK	7.0	R	7	24	1.7				GRA04
2002 03 07.81	x	S	10.0	TJ	32.0	L	5	58	1.8	5			NAG08
2002 03 08.17		M	10.3	TK	20.3	T	10	100	1.8	4			GRA04
2002 03 08.19		S	10.5	TK	20.3	L	6	48	1.5	5			BIV
2002 03 08.77		M	9.0	TI	5.0	B		10	2	4			CER01
2002 03 08.81		S	9.8	TJ	25.4	T	6	62	2.1	4			YOS04
2002 03 09.17		M	10.0	TT	35	L	5	68	3.0	3			HOR02
2002 03 09.81		S	10.2	TJ	25.4	T	6	62	2.4	3/			YOS04
2002 03 09.82	x	S	10.1	TJ	32.0	L	5	58	2.1	4			NAG08
2002 03 10.18		S	10.7	TK	25.6	L	5	42	1.3	4			BIV
2002 03 10.83		B	9.6	TI	11.4	L	8	36	1.5	4			CER01
2002 03 10.85		B	9.7	TI	11.4	L	8	75	1.5				NED
2002 03 11.12		M	10.0	TT	35	L	5	68	2.6	4			HOR02
2002 03 11.18		S	10.8	HS	10.0	B		25	1.2	4			HAS02
2002 03 11.80	x	S	10.2	TJ	32.0	L	5	58	2.2	5			NAG08
2002 03 12.21		B	9.3	TI	11.4	L	8	75	1.5				NED
2002 03 12.21		B	9.4	TI	11.4	L	8	36	1.5	4			CER01
2002 03 13.15		M	10.0	TT	13	L	8	69	2.6	3			HOR02
2002 03 13.81		S	10.2	TK	25.4	J	6	58	2.1	3			BOU
2002 03 13.82		S	10.1	TK	25.4	J	6	58	1.5	0/			DIJ
2002 03 14.14		M	10.0	TT	13	L	8	69	2.5	3/			HOR02

Comet C/2001 OG108 (LONEOS) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 14.16		M	10.4	TK	25.4	L	6	76	1.8	4/			GRA04
2002 03 14.17		S	10.4	TK	20.3	L	6	48	1.4	3			BIV
2002 03 15.12		S	10.1	TI	38	L	4	62	1.8	4/			SAR02
2002 03 15.81		S	10.4	NP	30	L	5	60	1.5	3			NEV
2002 03 15.82		S	10.5	TT	44	L	4	62	1	3			KAR02
2002 03 17.78		S	10.6	NP	30	L	5	60	2	3			NEV
2002 03 19.81		S	10.0	TJ	25.4	T	6	62	3.1	4			YOS04
2002 03 20.82	x	S	10.4:	TJ	32.0	L	5	58	2.3	4			NAG08
2002 03 21.05		S	9.7	TT	41	L	5	72	2.2	4			RES
2002 03 21.12		S	10.5	TK	20.3	T	10	100	2.2	3			GRA04
2002 03 23.03		S	10.4	TT	30.0	L	5	92	& 2.5	6			SCH04
2002 03 23.07		S	9.7	AC	41	L	5	72	1.8	4			RES
2002 03 23.12		M	9.7	TT	13	L	8	69	3.0	3/			HOR02
2002 03 23.13		S	9.8	TK	30.5	T	10	56	& 2	4			COM
2002 03 23.13		S	9.9	TK	25.4	J	6	58	1.8	4			BOU
2002 03 23.15		S	10.5	TK	20.3	L	6	48	2.0	4			BIV
2002 03 24.12		S	10.4	TT	30.0	L	5	92	& 4	2/			SCH04
2002 03 24.16		S	10.7	TK	20.3	L	6	48	1.7	4			BIV
2002 03 28.08		M	9.1	TI	7.6	L	9	35	2	4			CER01
2002 03 28.85		S	10.2	TK	20	R	14	75	1.1	3			SHA02
2002 03 29.05		M	9.7	TI	7.6	L	9	35	2	4			CER01
2002 03 30.10		S	9.5	AC	41	L	5	72	2	3/			RES
2002 03 30.80		M	10.1	TT	13	L	8	69	2.8	3			HOR02
2002 03 31.92		S	9.7	TJ	10.0	B		20	5.3	3/			MEY
2002 04 01.79		M	10.8	NP	30	L	5	60	1.5	3			NEV
2002 04 01.83		M	10.1	TT	13	L	8	69	2.7	3			HOR02
2002 04 01.84		S	10.0	TK	25.4	J	6	58	2.4	2/			DIJ
2002 04 01.84		S	10.0	TK	25.4	J	6	58	3.6	2			BOU
2002 04 02.82		S	9.8	TJ	10.0	B		20	4.4	3			MEY
2002 04 02.83		M	10.2	TT	42	L	5	66	2.5	3			LEH
2002 04 02.85		S	9.8	TK	25.4	J	6	58	3.5	2/			BOU
2002 04 02.85		S	10.1	TK	25.4	J	6	58	3.0	2/			DIJ
2002 04 02.88		S	10.4	TK	30.5	T	10	56	& 1.5	2/			COM
2002 04 02.90		M	10.2	TT	35	L	5	68	3.0	3			HOR02
2002 04 03.74	x	S	10.2	TJ	32.0	L	5	58	3.2	4			NAG08
2002 04 03.81		M	10.2	TT	10	B	4	25	3	3			LEH
2002 04 03.81		S	9.5	AC	41	L	5	72	2.0	3			RES
2002 04 03.82		M	10.4	NP	30	L	5	60	2	3			NEV
2002 04 03.83		S	10.2	TJ	25.4	L	5	65	1.6	2			MEY
2002 04 03.85		M	9.8	TT	35	L	5	68	3.6	3			HOR02
2002 04 03.85		S	9.8	TK	25.4	J	6	58	3.5	3			BOU
2002 04 03.85		S	9.9	TK	25.4	J	6	58	3.1	2/			DIJ
2002 04 03.87		S	12.0	TK	20	R	14	110	1.4	2			SHA02
2002 04 03.88		M	10.4	TI	11.4	L	8	36	1.5	4			CER01
2002 04 03.88		S	10.8	TK	20.3	L	6	48	2.0	3			BIV
2002 04 03.95		M	9.7	WC	15	L	5	42	4	2/			SHU
2002 04 04.13		S	10.7	TK	20.3	L	6	48	2.0	3			BIV
2002 04 04.79	x	S	10.3	TJ	32.0	L	5	58	2.8	4			NAG08
2002 04 04.81		S	9.7	TT	10.0	B		25	4.5	2			HAS02
2002 04 04.85		S	9.7	TK	25.4	J	6	58	3.5	3			BOU
2002 04 04.85		S	9.8	TK	25.4	J	6	58	2.9	2/			DIJ
2002 04 04.85		S	10.8	TT	30.0	L	5	60	& 3	6			SCH04
2002 04 04.86		M	10.0	TT	20	L	4	42	3.5	3			LEH
2002 04 04.88		S	10.6	TK	20.3	L	6	48	2.0	2			BIV
2002 04 04.93		M	9.7	TI	7.6	L	9	35	1.5	4			CER01
2002 04 04.97		M	9.8	TT	35	L	5	68	3.5	3			HOR02
2002 04 05.09		S	9.7	AC	41	L	5	72	2.0	3/			RES
2002 04 05.81		M	10.0	TT	10	B	4	25	3	3			LEH
2002 04 05.85		S	9.3	TJ	20.3	T	10	50	3.7	2			KAM01
2002 04 05.87		S	10.0	TJ	25.4	L	5	65	2.8	2/			MEY
2002 04 05.97		M	10.0	TT	35	L	5	68	3.3	3			HOR02
2002 04 06.06		S	10.2	TK	25.6	L	5	42	3.0	2			BIV
2002 04 06.08		S	9.9	TK	20	T	10	75	3.6	2			SHA02
2002 04 06.11		S	9.9	TK	25.4	J	6	58	2.7	3			DIJ
2002 04 06.11		S	9.9	TK	25.4	J	6	58	3.2	3			BOU

Comet C/2001 OG108 (LONEOS) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 07.06		S	10.3	HS	25.4	T	10	62	1.5	6			KLA02
2002 04 07.09		S	10.4	TK	20	T	10	75	2.3	2			SHA02
2002 04 07.30		S	10.4	TK	25	L		100	2.5	3			LIN04
2002 04 07.50	x	S	10.9	TJ	15.0	B		25	4	3			MIT
2002 04 07.83		M	10.0	TT	20	L	4	42	3	3/			LEH
2002 04 07.83		S	10.1	TJ	25.4	L	5	65	3.1	2/			MEY
2002 04 07.84		M	10.2	TI	7.6	L	9	35	1.5	4			CER01
2002 04 07.84		S	9.9	AC	41	L	5	72	2.5	3/			RES
2002 04 07.91		M	9.8	TT	35	L	5	68	3.5	3			HOR02
2002 04 08.07		S	10.5	TT	30.0	L	5	78	4	6			SCH04
2002 04 08.12		S	9.9	TK	25.4	J	6	72	3.4	3			BOU
2002 04 08.12		S	10.2	TK	25.4	J	6	72	3.0	2/			DIJ
2002 04 08.13		S	9.9	TK	20.3	L	6	48	2.0	2			BIV
2002 04 08.80		M	9.7	TT	5.0	B		7	3	3/			ZNO
2002 04 08.82		M	9.9	TT	20	L	4	42	3	3			LEH
2002 04 08.85		S	9.6	TJ	20.3	T	10	50	3.2	2			KAM01
2002 04 08.86		M	10.1	TI	7.6	L	9	35	2	4			CER01
2002 04 10.09		S	10.0	TK	25.4	J	6	58	3.7	2			BOU
2002 04 12.77	x	S	10.3	TJ	32.0	L	5	58	3.3	4/			NAG08
2002 04 13.92		S	10.6	TK	25.6	L	5	42	2.5	2			BIV
2002 04 14.90		M	9.9	CA	15	L	5	42	1	2/			SHU
2002 04 17.59	x	S	10.3	TJ	32.0	L	5	58	2.8	4/			NAG08
2002 04 18.02		M	10.3	AS	15	L	5	50	1	2/			SHU
2002 04 22.92		S	10.4	AC	41	L	5	72	1.8	4			RES
2002 04 29.89		S	11.6	HS	25.4	T	10	100	2	1			KLA02
2002 04 29.94		S	10.7	AC	41	L	5	121	1.5	3/			RES
2002 04 30.91		M	10.8	TT	20	L	4	42	1.5	3			LEH
2002 04 30.98		S	10.8	AC	41	L	5	121	1.2	3			RES

Comet P/2001 Q2 (Petriew)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 08 21.08	x	S	10.0	TJ	25	L	7	50	1.7	2			WAL03
2001 08 22.03		S	10.5	GA	25	L	6	85	4	2			KOR01
2001 08 22.89	x	S	10.5	TT	20	L	4	45	2.2	4			PEA
2001 08 23.03		S	10.3	AA	25	L	6	85	5	2			KOR01
2001 08 25.02		S	9.9	AA	25	L	6	85	3.5	2			KOR01
2001 08 25.05	x	S	10.0	TJ	15.0	L	6	48	2	4			GUZ
2001 08 25.07		M	9.6	TT	10	B	4	25	3.0	3			KUB01
2001 08 25.07	x	S	10.8	TJ	15	L	6	200	2	2/			KEZ
2001 08 26.02		S	9.9	AA	25	L	6	85	3.5	2			KOR01
2001 08 27.05	x	S	9.9	TJ	15.0	L	6	81	2	4			GUZ
2001 08 27.06	x	S	10.3	TJ	15	L	6	200	2.3	2			KEZ
2001 08 28.00		S	9.9	AA	25	L	6	85	4	2			KOR01
2001 08 29.01		S	9.9	AA	25	L	6	85	3.8	2			KOR01
2001 08 30.02		S	10.0	AA	25	L	6	85	3.7	2			KOR01
2001 08 30.04	x	S	10.0	TJ	15.0	L	6	48	2	4			GUZ
2001 08 31.02		S	10.0	AA	25	L	6	85	3.6	2			KOR01
2001 08 31.05	x	S	9.4	TJ	25	L	6	54	2	4			SWI
2001 08 31.05	x	S	9.9	TJ	15.0	L	6	48	2	4			GUZ
2001 09 02.03		S	10.1	AA	25	L	6	85	3.3	2			KOR01
2001 09 03.02		S	10.0	AA	25	L	6	85	3.4	2			KOR01
2001 09 04.03		S	9.9	AA	25	L	6	85	3.2	2			KOR01
2001 09 11.06		S	9.5	AA	10	R	6	60	6	2			KOR01
2001 09 12.07		S	9.5	AA	10	R	6	60	6	2			KOR01
2001 09 14.05		S	9.4	AA	10	R	6	60	5.5	2			KOR01
2001 09 15.06		S	9.5	AA	10	R	6	60	5.3	2			KOR01
2001 09 16.05		S	9.6	AA	10	R	6	60	5	2			KOR01
2001 09 18.07		S	9.7	AA	10	R	6	60	4.7	2			KOR01
2001 09 19.07		S	9.8	AA	10	R	6	60	4.4	2			KOR01
2001 09 20.08		S	9.8	AA	10	R	6	60	4.1	2			KOR01
2001 09 20.09	x	S	9.9	TJ	25	L	6	108	2	2			SWI
2001 09 21.07		S	9.9	AA	10	R	6	60	4	2			KOR01
2001 09 21.07	x	S	10.1	TJ	15.0	L	6	48	2	3			GUZ
2001 09 22.09		S	9.9	AA	10	R	6	60	3.7	2			KOR01

Comet P/2001 Q2 (Petriew) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 09 26.12		S	10.2	AA	25	L	6	85	2.8	2			KOR01
2001 09 27.12		S	10.2	AA	25	L	6	85	2.6	2			KOR01
2001 09 28.13		S	10.3	AA	25	L	6	85	2.4	2			KOR01
2001 09 29.13		S	10.6	TT	13	L		69	2.2	2/			HOR02
2001 09 30.10	x	S	10.6	TJ	15.0	L	6	81	2	3			GUZ
2001 11 17.14		S	13.3	AC	41	L	5	121	1.2	3/			RES

Comet P/2001 Q6 (NEAT)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 10 20.00	x	S	12.0:	HS	30	L	4	96	& 2	2			GRA09
2001 10 22.77		M	11.4	TI	35	L	5	68	2.8	2			HOR02
2001 10 22.86		S	11.6	HS	27.0	L	6	83	2.5	3/			TOT03
2001 10 22.92		M	10.6	TT	42	L	5	81	2.5	3			LEH
2001 10 23.12	x	S	11.5:	TT	11	L	7	32	& 2	3/			BUR04
2001 10 23.84	x	S	11.9	TT	11	L	7	32	2.3	2			POW01
2001 10 25.01	x	M	11.5:	TJ	31.7	L	5	78	& 2.5	2			ADA02
2001 11 01.68		S	11.7	AC	41	L	5	121	& 1.5	2/			RES
2001 11 01.80		M	10.0	TT	42	L	5	81	2.5	2/			LEH
2001 11 02.74		M	10.2	TT	42	L	5	81	2	2/			LEH
2001 11 03.71		M	12.4	HS	36	L	6	70	1.5	2			BAR06
2001 11 04.38	x	S	11.2	TJ	32.0	L	5	58	2.5	2			NAG08
2001 11 04.70		S	10.8	TT	13	L	8	69	3.0	1/			HOR02
2001 11 05.75		S	10.9	TJ	25.4	J	6	58	3.2	1/			BOU
2001 11 05.76		S	10.8	TJ	25.4	J	6	58	3.4	2/			DIJ
2001 11 05.77		M	11.0	TI	42	L	5	81	3.2	2			LEH
2001 11 05.79		S	10.7	TT	13	L	8	69	3.1	1/			HOR02
2001 11 06.44	x	S	10.9	HS	25.4	L	4	46	2.6	2			YOS02
2001 11 06.80		S	10.6	TJ	30.5	T	10	56	> 2	1			COM
2001 11 08.84		S	10.6:	TJ	30.5	T	10	56	> 3	1			COM
2001 11 09.76		S	10.6	TJ	30.5	T	10	56	3.8	1/			COM
2001 11 09.76		S	10.9	TJ	25.4	J	6	58	3.3	1/			BOU
2001 11 09.76		S	11.4	AC	41	L	5	121	2.5	2/			RES
2001 11 09.77		S	11.1	TI	7.6	L	9	35	2				CER01
2001 11 09.85		S	10.9	TJ	30.5	L	5	72	3.5	1			GIL01
2001 11 09.94		M	10.6	TT	13	L	8	69	2.8	2/			HOR02
2001 11 10.57	x	S	10.8	TJ	32.0	L	5	58	3.5	3			NAG08
2001 11 10.75		M	10.6	TT	13	L	8	69	3.2	2			HOR02
2001 11 10.86	x	S	11.0	TT	20	L	5	50	3.5	3/			BUR04
2001 11 10.87	x	S	11.0	TT	20	L	5	50	4.3	4/			POW01
2001 11 10.88	x	S	11.2	TT	20	L	5	50	3.2	4			BAR10
2001 11 10.88		S	11.7	AC	41	L	5	121	2.5	2/			RES
2001 11 10.90	x	S	11.0	TJ	25	L	6	108	2	1			SWI
2001 11 10.94		S	11.7	TI	30	L	4	132	1.8	2/			GRA09
2001 11 11.07		S	10.8	TJ	25.4	L	6	76	3.2	2/			GRA04
2001 11 13.75		S	11.7	AC	41	L	5	121	2.5	2/			RES
2001 11 13.78	x	S	12.1	HS	21	L	8	100	1.3	2/			PAC03
2001 11 14.01		S	11.0	TJ	25.4	J	6	58	3.4	2			BOU
2001 11 14.10		S	11.2	TJ	20.3	T	10	100	2.5	2			GRA04
2001 11 14.48	x	S	11.6	HS	25.4	L	4	46	2.2	2			YOS02
2001 11 14.75		M	10.3	TT	35	L	5	68	3.8	1/			HOR02
2001 11 14.75		S	10.6	TI	7.6	L	10	35	3.5				CER01
2001 11 14.80		S	10.5:	TJ	30.5	T	10	56	5	0			COM
2001 11 14.85		S	10.9	TJ	30.5	T	5	72	3.6	2			GIL01
2001 11 14.93		S	11.3	AC	41	L	5	121	2.0	3			RES
2001 11 15.00		S	10.9	TJ	31.0	J	6	58	3.4	1/			BOU
2001 11 15.01		S	10.5	TJ	31.0	J	6	58	3	2			DIJ
2001 11 15.73		S	10.7	TI	7.6	L	10	35	3.5				CER01
2001 11 15.79		M	10.3	TT	35	L	5	68	3.6	2			HOR02
2001 11 15.81	x	S	12.2:	TJ	31.7	L	5	78	& 1.5	1			ADA02
2001 11 15.83		S	12.1	HS	27.0	L	6	83	3	2			TOT03
2001 11 15.83		S	12.3	HS	27.0	L	6	83	2.5	2			SIP
2001 11 16.74		M	10.4	TT	42	L	5	81	3	3			LEH
2001 11 16.90		M	10.3	TT	35	L	5	68	3.4	2			HOR02
2001 11 17.13		S	11.5	AC	41	L	5	121	2.5	2			RES

Comet P/2001 Q6 (NEAT) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 17.65		S	11.0	HS	25.4	T	6	62	3.1	2			YOS04
2001 11 17.74		M	10.4	TT	13	L	8	69	3.5	1/			HOR02
2001 11 17.74	x	S	12.0:	TJ	31.7	L	5	78	& 2	1			ADA02
2001 11 17.89	x	S	11.0	TJ	25	L	6	54	3	1			SWI
2001 11 17.92		S	10.7	TI	38	T	4	75	3				SAR02
2001 11 19.44	x	S	11.4	HS	32.0	L	5	91	1.7	2			NAG08
2001 11 19.77		S	11.2:	TJ	15.2	L	5	42	2.0	1			MOE
2001 11 19.86		S	11.2	AC	41	L	5	121	2.0	2			RES
2001 11 19.90		S	10.8	TJ	25.4	J	6	58	3.5	1/			BOU
2001 11 20.75		M	11.5	PA	30	L	5	60	2	1			NEV
2001 11 20.84		S	11.5	HS	44.0	L	5	100	0.9	2			HAS02
2001 11 28.21		S	11.9	HS	20	T	10	75	1.3	2			SHA02
2001 12 06.78		S	11.5	TJ	31.0	J	6	72	2.5	1			BOU
2001 12 06.80		M	12.8	NP	30	L	5	60	1	1			NEV
2001 12 07.74		S	11.8	TJ	31.0	J	6	89	2.5	1			BOU
2001 12 07.77	x	S	11.8	TT	20	L	5	50	2	2			BUR04
2001 12 07.78	x	S	11.6	TT	20	L	5	50	2.8	2			POW01
2001 12 07.78	x	S	11.9	TT	20	L	5	50	2.6	2			BAR10
2001 12 08.75		S	11.9	TT	35	L	5	68	1.9	1/			HOR02
2001 12 08.76		S	10.7	TI	7.6	L	9	35	2.5				CER01
2001 12 09.44		S	[11.0	TJ	25.4	T	6	116	! 2.2				YOS04
2001 12 09.74		S	11.9	AC	31.0	J	6	72	2.2	1			BOU
2001 12 09.75		S	11.9	AC	31.0	J	6	72	2.5	0			DIJ
2001 12 09.76		S	10.8	TI	7.6	L	9	35	2.5				CER01
2001 12 09.76		S	12.0	TK	35	L	5	68	2.1	1/			HOR02
2001 12 09.76		S	12.0	TK	35	L	5	68	2.1	1/			HOR02
2001 12 11.42	x	S	[12.1	HS	32.0	L	5	91	! 1.0				NAG08
2001 12 12.09		S	11.7:	HS	20	T	10	75	1.4	2			SHA02
2001 12 13.94		S	11.9	TJ	31.0	J	6	72	2.2	0/			BOU
2001 12 13.95		S	11.7	TJ	31.0	J	6	72	1.5	1			DIJ
2001 12 14.72		S	12.1	GA	31.0	J	6	89	2.0	1			BOU
2001 12 16.77		S	12.1	HS	31.0	J	6	89	1.2	1			DIJ
2001 12 16.77		S	12.3	HS	31.0	J	6	89	2.0	1			BOU
2001 12 16.81		S	12.6	AC	25.4	L	6	76	1.5	2			GRA04
2002 01 03.80		S	13.0	HS	44.0	L	5	63	0.6	4			HAS02
2002 01 04.87		S	12.5	HS	31.0	J	6	109	1.7	1			DIJ
2002 01 04.87		S	12.7	HS	31.0	J	6	109	1.4	0/			BOU
2002 01 13.77		S	13.3	HS	31.0	J	6	143	0.9	0/			DIJ
2002 01 13.77		S	13.3:	HS	31.0	J	6	143	& 1	0/			BOU

Comet C/2001 RX14 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 17.94		S	[13.5	HS	38	T	4	126	! 0.5				SAR02

Comet P/2001 TU80 (LINEAR-NEAT)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 11.89		S	13.8	AC	41	L	5	121	0.5	2			RES
2002 02 02.88		S	14.2:	HS	31.0	J	6	143	0.5	2/			BOU
2002 02 02.89		S	14.6:	HS	31.0	J	6	143	0.5	0/			DIJ
2002 02 08.97		S	13.8	HS	38	L	4	126	1.3				SAR02
2002 02 12.77		S	14.5	AC	41	L	5	262	0.5	3			RES
2002 02 13.77		S	14.4	AC	41	L	5	262	0.5	3			RES
2002 02 15.81		S	[14.7	AC	41	L	5	262	! 0.5				RES

Comet C/2001 W2 (BATTERS)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 15.73		S	11.1	TI	7.6	L	9	35	3				CER01
2001 11 25.74		S	[12.1	HS	27.0	L	6	83	! 1				TOT03
2001 12 04.42	x	S	11.5	HS	25.4	L	4	113	1.7	3			YOS02
2001 12 05.86		S	11.0	HS	36	L	6	80	2.5	2			BAR06
2001 12 06.72	a	S	12.3	GA	31.0	J	6	109	1.2	3/			BOU
2001 12 07.74		M	11.1	TJ	31.0	J	6	109	1.0	S7			BOU

Comet C/2001 W2 (BATTERS) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 12 07.75	x	S	11.5	TT	20	L	5	50	0.7	2			POW01
2001 12 07.82		S	11.0	TI	32	L	5	75	1.1	D6			MAR02
2001 12 08.37	x	M	12.1	HS	35.0	C	9	250					TSU02
2001 12 08.68		M	11.2	TI	42	L	5	81	1.5	5/			LEH
2001 12 08.70	x	S	11.2	TI	30	L	4	132	0.8	D6			GRA09
2001 12 08.72		M	11.4	TT	35	L	5	158	0.9	7/			HOR02
2001 12 09.40		S	10.5	TJ	25.4	T	6	116	1.6	3/			YOS04
2001 12 09.69		M	10.9	TT	20	L	4	42	1.6	5			LEH
2001 12 09.70		S	11.0	HS	27.0	L	6	120	2.5	4			SIP
2001 12 09.70		S	11.2	HS	27.0	L	6	120	1.7	3			TOT03
2001 12 09.72		M	11.3	TK	35	L	5	158	1.0	7			HOR02
2001 12 09.72		S	11.3	TJ	31.0	J	6	89	1.2	s5			BOU
2001 12 09.72		S	11.4	HS	44.0	L	5	156	0.6	4			HAS02
2001 12 09.72		S	11.6	TJ	31.0	J	6	89	1	3/			DIJ
2001 12 09.73		S	10.9	HS	11	L	7	50	2.5	2			BAR06
2001 12 11.38	x	S	11.2:	HS	32.0	L	5	91	1.4	4			NAG08
2001 12 13.70		M	12.0	TI	42	L	5	81	1.3	4			LEH
2001 12 14.71	a	S	11.8	AC	31.0	J	6	109	1.1	3/			BOU
2001 12 16.70	x	S	11.8	TT	20	L	5	50	0.6	2			POW01
2001 12 16.71	x	S	11.6	TT	20	L	5	50	0.5	1/			BUR04
2001 12 16.71	a	S	11.8	AC	31.0	J	6	89	1.2	3			BOU
2001 12 16.72	a	S	11.9	AC	31.0	J	6	89	1.2	2			DIJ
2001 12 20.75	\$	S	11.7	AC	41	L	5	121	& 1.8	3			RES

Comet C/2001 X1 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 12 24.07		S	12.3	HS	27.0	L	6	83	!	1			TOT03
2002 01 06.81		S	13.0	GA	41	L	4	200	!	1			PEA
2002 01 07.59		S	13.0:	HS	28	L	6	84	2	2			MAT08
2002 01 16.56		S	13.5:	HS	28	L	6	84	2	1			MAT08
2002 01 19.81		S	13.7	GA	41	L	4	200	0.8	2			PEA
2002 01 20.81		S	13.6	GA	41	L	4	200	0.8	2			PEA
2002 01 21.81		S	13.6	GA	41	L	4	200	0.7	2			PEA
2002 01 26.81		S	13.5	GA	41	L	4	200	!	1			PEA
2002 02 11.52		S	14.0:	HS	28	L	6	196	2	1			MAT08

Comet C/2002 E2 (Snyder-Murakami)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 13.12		S	10.1	TT	13	L	8	69	3.1	1			HOR02
2002 03 13.74		M	10.8	TJ	28	L	6	84	1.5	4			MAT08
2002 03 13.83	x	M	10.6	HS	12.5	L	6	60		4			TSU02
2002 03 13.83	x	S	9.4:	TJ	25.0	L		69	2.0	3			WAT01
2002 03 13.87		S	10.9	TK	41	L	4	90	1.6	2			PEA
2002 03 14.12		M	10.3	TK	25.4	L	6	76	3.5	4			GRA04
2002 03 14.12		S	10.0	TT	13	L	8	69	3.4	1			HOR02
2002 03 14.12		S	10.2:	TK	7.0	R	7	24	3.5				GRA04
2002 03 14.74		M	10.7	TJ	28	L	6	84	2	4			MAT08
2002 03 15.10		M	10.3	TK	25.4	L	6	76	3.5	3	0.05	230	GRA04
2002 03 15.13		S	10.0	TI	38	L	4	62	3.6	3			SAR02
2002 03 15.35		S	10.7:	TK	8.0	B		20		1			AM001
2002 03 15.63		M	10.2	TK	7.0	R	7	46	2	2			BED
2002 03 15.87		S	10.9	TK	41	L	4	90	1.7	3			PEA
2002 03 16.09	a	S	10.0	NP	30	L	5	60	2.5	4	3	m 220	NEV
2002 03 16.22		S	10.1	AA	10	R	6	68	3	4			KOR01
2002 03 17.21		S	10.0	AA	10	R	6	68	3	3			KOR01
2002 03 17.80	x	S	11.2	HS	31.7	L	6	63	1.4	3/			MIY01
2002 03 18.21		S	9.8	AA	10	R	6	68	3	2/			KOR01
2002 03 18.79	x	S	11.0	HS	31.7	L	6	63	1.0	3/			MIY01
2002 03 18.80	x	S	9.8	TJ	32.0	L	5	58	2.7	4			NAG08
2002 03 18.86		S	10.9	TK	41	L	4	90	1.9	2			PEA
2002 03 19.79		S	10.1	TJ	25.4	T	6	62	3.0	2/			YOS04
2002 03 20.15		S	10.0	AA	15	V	5	75	2	2/			KOR01
2002 03 20.80	x	S	10.0	TJ	32.0	L	5	58	2.5	4			NAG08

Comet C/2002 E2 (Snyder-Murakami) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 20.82	x	S	10.6	TT	25.4	L	4	46	2.1	3			YOSO2
2002 03 20.86		S	11.0	TK	41	L	4	90	1.9	2			PEA
2002 03 21.06		S	10.7	AC	41	L	5	72	1.5	2			RES
2002 03 21.14		S	10.8	TK	20.3	T	10	100	2.3				GRA04
2002 03 21.86		S	10.9	TK	41	L	4	90	1.5	2			PEA
2002 03 22.16		S	10.0	AA	15	V	5	75	2	2/			KOR01
2002 03 23.08		S	10.5	AC	41	L	5	72	1.5	2			RES
2002 03 23.11		S	9.9	TT	13	L	8	69	3.7	1			HORO2
2002 03 23.12		S	10.0	TK	30.5	T	10	56	2	3			COM
2002 03 23.13		S	10.4	TK	25.4	J	6	58	2.5	3/			BOU
2002 03 23.16		S	10.0	AA	15	V	5	75	2	2			KOR01
2002 03 23.16		S	10.7	AA	15.0	R		75	2	5			DIE02
2002 03 23.17		S	10.5	TK	20.3	L	6	48	2.0	3			BIV
2002 03 23.85		S	10.8	TK	20	L	4	45	2.0	3			PEA
2002 03 24.14		S	10.9	TT	30.0	L	5	92	& 2	1			SCH04
2002 03 24.86		S	10.9	TK	41	L	4	90	1.4	2			PEA
2002 03 25.86		S	11.1	TK	41	L	4	90	1.3	2			PEA
2002 03 26.86		S	11.1	TK	41	L	4	90	1.2	2			PEA
2002 03 28.10		M	9.7	TI	7.6	L	9	35	3	2			CER01
2002 03 29.06		M	9.8	TI	7.6	L	9	35	3	2			CER01
2002 03 30.11		S	10.2	AC	41	L	5	72	1.5	2			RES
2002 04 03.09		M	10.2	TT	20	L	4	42	2	3/			LEH
2002 04 03.76	x	S	11.1	TJ	32.0	L	5	91	2.0	6			NAG08
2002 04 04.01		M	10.4	SE	15	L	5	75	1	3			SHU
2002 04 04.01		M	10.7	AA	30	L	5	60	1.5	3			NEV
2002 04 04.08		M	10.4	TT	20	L	4	42	2	3/			LEH
2002 04 04.78	x	S	10.9	TJ	32.0	L	5	91	2.3	6			NAG08
2002 04 05.00		M	9.7	TI	7.6	L	9	35	3	2			CER01
2002 04 05.10		S	10.4	AC	41	L	5	72	1.5	3			RES
2002 04 05.12		S	10.5	TT	10.0	B		25	1.7	4			HAS02
2002 04 05.12		S	10.6	TK	25.4	J	6	72	2.3	2			BOU
2002 04 05.13		S	10.4	TK	25.4	J	6	72	1.3	2/			DIJ
2002 04 05.15		S	10.2	TK	20.3	L	6	48	2.0	4			BIV
2002 04 05.74		S	10.2	TJ	25.4	T	6	62	2.4	3			YOSO4
2002 04 06.01		S	10.8	TT	44.5	L	4	62	2.0	3			KAR02
2002 04 06.08		S	10.3	TK	25.6	L	5	42	2.0	2			BIV
2002 04 06.10		S	11.0	HS	25.4	T	10	100	1.5	1			KLA02
2002 04 06.11		S	10.8	TK	20	T	10	75	1.6	1			SHA02
2002 04 06.12		S	10.3	TK	25.4	J	6	72	1.6	2			DIJ
2002 04 06.12		S	10.5	TK	25.4	J	6	72	2.5	3			BOU
2002 04 07.10		S	10.5	TK	25.4	J	6	58	2.7	2			BOU
2002 04 07.11		S	10.9	TK	20	T	10	75	1.6	2			SHA02
2002 04 08.01		M	10.0	TI	7.6	L	9	35	3	3			CER01
2002 04 08.08		M	10.0	TT	20	L	4	42	2.5	3/			LEH
2002 04 08.09		S	10.3	TT	30.0	L	5	78	3	1			SCH04
2002 04 08.09		S	10.6	TK	25.4	J	6	58	3.1	1/			BOU
2002 04 08.10		S	10.4	TK	25.4	J	6	58	2.5	1/			DIJ
2002 04 08.11		S	10.3	TT	13	L	8	69	4.2	0/			HORO2
2002 04 09.00		M	9.7	TI	7.6	L	9	35	3	3			CER01
2002 04 10.08		S	10.7	TK	25.4	J	6	72	2.3	1/			BOU
2002 04 13.73	x	S	10.7	TK	25.4	L	4	46	2.2	3			YOSO2
2002 04 17.60	x	S	10.7:	TJ	32.0	L	5	91	1.0	7			NAG08
2002 04 21.76	x	S	11.0	TJ	32.0	L	5	58	2.2	6			NAG08
2002 04 22.98		S	10.8	AC	41	L	5	72	1.2	2			RES
2002 04 29.96		S	11.2	AC	41	L	5	121	1.2	2/			RES
2002 04 30.99		S	11.4	AC	41	L	5	121	1.2	2			RES

Comet C/2002 F1 (Utsunomiya)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 21.14		S	9.5	TT	41	L	5	72	& 2	3/			RES
2002 03 22.17		S	9.6	AA	15	V	5	75	2	4			KOR01
2002 03 22.20		S	9.3	TJ	8.0	B		11	2				GON05
2002 03 23.15		S	9.2	TK	25.4	J	6	58	1.9	3/			BOU
2002 03 23.17		S	9.8	AA	15	V	5	75	2	4			KOR01

Comet C/2002 F1 (Utsunomiya) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 23.89		S	9.5	TK	20	L	4	45	1.8	6/			PEA
2002 03 24.15		S	9.2	TK	20.3	T	10	100	1.5				GRA04
2002 03 24.18		S	9.9:	TK	20.3	L	6	48	1.5	4			BIV
2002 03 27.21		I	8.7	TJ	8.0	B		11	2				GON05
2002 03 29.14		S	8.7	TK	20.3	T	10	100	1.1	5			GRA04
2002 03 30.14		S	8.0	TT	8.0	B		10	7	3/			HOR02
2002 03 30.14		S	8.4	AC	41	L	5	72	2	4/			RES
2002 03 31.13		S	8.1	TT	8.0	B		10	5	3/			HOR02
2002 04 03.13		M	7.2	TT	5.0	B		10	4	3			LEH
2002 04 03.13		S	7.9	TT	8.0	B		10	5	3			HOR02
2002 04 03.79	xa	S	8.6	TJ	32.0	L	5	58	1.4	7/	4 m	280	NAG08
2002 04 04.12		M	7.3	TT	8.0	B		10	7	4			HOR02
2002 04 04.13		M	7.1	TT	5.0	B		10	4	3			LEH
2002 04 04.16		S	9.1	TK	20.3	L	6	48	1.3	7	0.03	270	BIV
2002 04 04.79	xa	S	8.8	TJ	32.0	L	5	58	1.3	8	4 m	285	NAG08
2002 04 04.82	x	M	8.0	TT	10.0	B		26					TSU02
2002 04 05.12		S	8.2	TT	10.0	B		25	3.4	5			HAS02
2002 04 05.14		M	7.8	TT	25.4	J	6	47	1.5	7/	0.17	280	BOU
2002 04 05.14		S	8.0	TT	25.4	J	6	47	2	5/	4 m	290	DIJ
2002 04 05.16		S	8.6	TK	20.3	L	6	48	1.2	7	0.05	280	BIV
2002 04 05.78		S	7.4	TJ	25.4	T	6	32	2.8	s7/			YOS04
2002 04 06.09		M	7.8	TK	20.3	T	10	100	1.5	6	0.1	315	GRA04
2002 04 06.11		S	7.6	TK	7.0	R	7	24	2	5			GRA04
2002 04 06.12		M	7.1	TT	8.0	B		10	8	4			HOR02
2002 04 06.13		B	8.4	S	25.4	T	10	100	1.0	6	0.03	289	KLA02
2002 04 06.13		M	7.8	TT	25.4	J	6	47	& 1	8	0.2	290	BOU
2002 04 06.14		S	7.9	TT	25.4	J	6	47	1.1	6	8 m	313	DIJ
2002 04 06.14		S	8.2	TK	20	T	10	75	0.6	7	0.12	275	SHA02
2002 04 06.16		S	7.8	TK	10	B		14	2.1	7	0.15	275	SHA02
2002 04 06.17		S	8.3	TK	25.6	L	5	42	1.5	7	0.05	275	BIV
2002 04 07.11		B	8.4	S	25.4	T	10	62	0.5	6	0.03	295	KLA02
2002 04 07.15		B	8.4	TK	20	T	10	75	0.5	8	0.12	285	SHA02
2002 04 07.16		B	7.7	TK	8.0	B		20	3	8			SHA02
2002 04 07.16		B	7.8	TK	5.0	B		7	2	8			BIV
2002 04 07.16		B	8.0	TK	10.0	B		25	1.5	7	0.05	280	BIV
2002 04 07.79	x\$	S	8.1	TJ	10.0	B		20	2.0	8	15 m	300	NAG08
2002 04 08.11		M	7.2	TI	5.0	B		10	3	5			CER01
2002 04 08.12		M	6.5	TT	8.0	B		10	6	5			HOR02
2002 04 08.13		M	6.6	TT	5.0	B		10	4	3			LEH
2002 04 08.13		M	7.4	TT	25.4	J	6	58	& 1	8	0.15	290	BOU
2002 04 08.13		S	7.1	TT	25.4	J	6	58		7/	8 m	313	DIJ
2002 04 08.14	&	S	7.3:	TT	8.0	B		15	& 2	7	& 0.1	310	SCH04
2002 04 08.16		B	7.5	TK	20.3	L	6	48	1.0	7	0.05	290	BIV
2002 04 09.13		M	6.5	TI	11.4	L	8	36	3	6	0.3	320	CER01
2002 04 10.10		B	6.1	YG	7.0	R	7	24		8/			GRA04
2002 04 10.13		B	5.9	TT	8.0	B		15		8/	0.2	305	BOU
2002 04 10.13		B	6.2	YG	20.3	T	10	100	0.2	8/			GRA04
2002 04 10.16		B	5.9	TK	20.3	L	6	48	0.5	8/			BIV
2002 04 12.16		B	5.4:	TK	25.6	L	5	42	2.0	7	>0.17	315	BIV
2002 04 13.16	!	S	5.6	HI	8.0	B		20	2	7	0.1	330	SHA02
2002 04 13.81	xa	M	5.3:	HV	15.0	B		25	& 2	7			MIT
2002 04 13.82	xa	S	4.8:	TK	10.0	B		20	& 5	6			YOS02
2002 04 14.14		B	5.5	TK	5.0	B		7	2	7	0.8	320	BIV
2002 04 14.15		S	5.6	TK	25.6	L	5	42	1.5	7	0.4	320	BIV
2002 04 14.16	a	B	5.4	TI	5.0	B		7	5	8	0.3	340	SER02
2002 04 16.12	a	B	4.1	TT	5.0	B		10	4.0	8	1.4	337	HAS02
2002 04 16.15	!	S	3.9	HI	8.0	B		20	2	8	0.1	325	SHA02
2002 04 16.18		S	4.8	TK	25.6	L	5	42	2.0	7	>0.1	345	BIV
2002 04 16.18		S	4.9	TJ	8.0	B		11	2	8	0.75	330	GON05
2002 04 16.85		B	4.8	TT	8.0	B		20		8	0.5	340	KAR02
2002 04 17.15	!	S[2.5:	HI	8.0	B		20					SHA02
2002 04 18.08		M	5.6	HD	15	L	5	30	1.7	8	11 m		SHU
2002 04 18.87		N	6.0:	TK	8.0	R	5	40	4	7/	0.5	345	SKI
2002 04 18.87	!	S	4.0	YG	5.0	B		7			0.5		SKI
2002 04 19.09		M	4.5	YG	5.0	B		7	3				GRA04

Comet C/2002 F1 (Utsunomiya) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 19.09		N	6.1	TK	7.0	R	7	24	2.5	7	0.6	335	GRA04
2002 04 20.19		I	5.2	TJ	8.0	B		11	2	8	0.3	330	GON05
2002 04 20.85		I	5.5	TJ	8.0	B		11	2	8	0.2	330	GON05
2002 04 20.89		M	4.8	YG	5.0	B		7	2.5		0.9		GRA04
2002 04 20.89		N	6.4:	YG	7.0	R	7	24	2.5	7/	1.0	350	GRA04
2002 04 21.86		S	5.3	TJ	8.0	B		11	2	8	0.4	355	GON05
2002 04 22.82		S	3.7	TT	6.0	B		20	3	7	0.5		RES
2002 04 22.85		S	5.5	TJ	8.0	B		11	2	8	0.4	355	GON05
2002 04 23.86		S	4.5	HI	8.0	B		20	2.5	6	0.4	350	SHA02
2002 04 24.86		S	4.4	HI	8.0	B		20	2	7	0.3	15	SHA02
2002 04 24.86	s	M	4.8	TT	8.0	B		15		6/	0.4	10	BOU
2002 04 24.90		M	4.8	YG	5.0	B		7					GRA04
2002 04 24.90		N	6.8	TK	7.0	R	7	24	2	7	0.5	5	GRA04
2002 04 25.08		I	5.9:	YG	7.0	R	7	24		8/			GRA04
2002 04 26.86		I	4.1	HI	8.0	B		20	1	9	0.5	10	SHA02
2002 04 27.81	\$	S	4.7	TT	6.0	B		20	3	6/	0.4	45	RES
2002 04 27.83		B	4.3	S	5.0	B		7		8	0.08	33	KLA02
2002 04 28.43	x\$	S	5.7	TJ	10.0	B		20	2	6/	0.1	40	NAG08
2002 04 28.44	x\$	M	4.7	HV	15.0	B		25	3.5	6	10 m	20	MIT
2002 04 28.78		S	4.8:	TJ	7.0	B		16	3	6	0.1	345	GIA01
2002 04 29.83		B	4.5	S	5.0	B		7		9	0.25	38	KLA02
2002 04 29.86		M	5.0	TT	8.0	B		15		6/	0.6	40	BOU
2002 04 29.87		S	5.1	TJ	8.0	B		11	2	8	0.4	45	GON05
2002 04 30.79		M	4.8	TT	20	L	4	42	6	7	0.50	35	LEH

Comet C/2002 H2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 29.96		S	12.9	AC	41	L	5	121	1.0	3			RES
2002 04 30.95		S	13.0	AC	41	L	5	121	0.9	3			RES

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DESIGNATIONS OF RECENT COMETS

Listed below, for handy reference, are the last 15 comets to have been given designations in the new system. The name, preceded by a star (*) if the comet was a new discovery (compared to a recovery from predictions of a previously-known short-period comet) or a # if a re-discovery of a 'lost' comet. Also given are such values as the orbital period (in years) for periodic comets, date of perihelion, *T* (month/date/year), and the perihelion distance (*q*, in AU). Four-digit numbers in the last column indicate the *IAU Circular* (4-digit number) containing the discovery/recovery or permanent-number announcement. Note that 153P = C/2002 C1 (Ikeya-Zhang).

Not included below are numerous recently-discovered comets observed only with the SOHO spacecraft. [This list updates that in the January 2002 issue, p. 41. For explanation regarding new usage of 'C/' instead of 'P/' for intermediate-period comets, see editorial note on page 2 of the January 2000 issue.]

	<i>New-Style Designation</i>	<i>P</i>	<i>T</i>	<i>q</i>	<i>IAUC</i>
*	C/2002 K4 (NEAT)	73.4	7/12/02	2.76	7909
*	C/2002 L9 (NEAT)		4/6/04	7.03	7931
*	C/2002 O4 (Hönig)		10/1/02	0.78	7939
*	P/2002 O5 (NEAT)	4.98	8/3/02	1.17	7942
*	C/2002 O6 (SWAN)		9/9/02	0.49	7944
*	C/2002 O7 (LINEAR)		9/22/03	0.90	7949
*	P/2002 O8 (NEAT)	8.1	5/8/02	3.23	7949
*	C/2002 P1 (NEAT)		11/24/01	6.53	7950
*	P/2002 Q1 (Van Ness)	6.65	7/15/02	1.52	7956
*	C/2002 Q2 (LINEAR)		8/18/02	1.31	7960
*	C/2002 Q3 (LINEAR)		8/19/02	1.31	7960
*	154P/2002 Q4 (Brewington)	10.7	2/19/03	1.59	7961
*	C/2002 Q5 (LINEAR)		11/19/02	1.24	7962
*	155P/2002 R2 (Shoemaker)	17.1	12/14/02	1.81	7969
*	C/2002 R3 (LONEOS)		6/13/03	3.87	7970